## DAYALBAGH EDUCATIONAL INSTITUTE



(DEEMED TO BE UNIVERSITY) DAYALBAGH, AGRA 282 005, INDIA

**PROF. C. PATVARDHAN, DIRECTOR** 

#### Director's Message



"Education, more education and education made perfect is the only panacea for all our country's ills and evils" was the profound Vision of the Grand Visionary, the Founder of Dayalbagh, His Holiness Sir Sahabji Maharaj, the fifth revered Leader of Radhasoami Faith. The Education ecosystem in Dayalbagh is towards the realisation of this Grand Vision. DEI is committed to excellence, inclusivity, and societal impact. DEI stands not only for academic excellence but also as a force for positive change in society. "Excellence with relevance" is the Mantra. We take pride in our considerable efforts towards the development of 'The Last,

The Least, The Lowest, and The Lost' in the human strata. Our initiatives extend to the welfare of tribal communities, reaffirming our commitment to create an inclusive and equitable society.

The National Education Policy, 2020 (NEP) envisions a massive transformation in education through– "an education system rooted in Indian ethos that contributes directly to transforming India, that is Bharat, sustainably into an equitable and vibrant knowledge society, by providing high quality education to all, thereby making India a global knowledge superpower."

The Dayalbagh Education Policy was formulated in 1975 by the Founder Director of Dayalbagh Educational Institute, Dr Makund Behari Lal Sahab, Himself a renowned academic of international repute. This education policy forms the bedrock on which the edifice of Dayalbagh education ecosystem rests. The Dayalbagh Education Policy is very exquisitely carved. It anticipated many of the features of NEP 1986 and the recent NEP 2020. That is the reason why implementation of NEP 2020 mandates was not at all difficult for DEI. Many of them were already implemented in DEI. The Institute has adopted the NEP mandated four-year UG programme after diligently working on the structure and formal clearances through the academic bodies of the Institute including the Boards of Studies and the Academic Council.

The Institute participated in The **Akhil Bhartiya Shiksha Samagam** on 29<sup>th</sup> and 30<sup>th</sup> July 2023 organized by the Government of India to commemorate 3 years of NEP 2020. The exhibition put up by DEI showcased its close alignment with NEP2020 which was applauded by the visiting dignitaries and participants.

Academic Bank of Credits (ABC) is a virtual/digital storehouse that contains the information of the credits earned by individual students throughout their learning journey. More than

Office of The Director, Dayalbagh Educational Institute, Dayalbagh, Agra 282 005, India Phone: +91 562 280 1545; Email: director@dei.ac.in 8000 ABC Ids of the students of all six faculties were generated by the Institute during the year 2023-24. Credit score of the hundreds of the students were uploaded on DigiLocker portal during the year 2023-24.

Third party transparency audit of the Institute under mandatory disclosure was conducted by National Institute of Technical Teachers Training & Research, NITTTR, Chandigarh. The Institute has secured an A Grade.

The Ministry of Education has been conducting an annual web based All India Survey on Higher Education (AISHE) since 2010-11. The survey covers all the Institutions in the country engaged in imparting higher education. The Institute has been submitting data on AISHE portal since the year 2011. DEI submitted the data on AISHE portal for the year 2022-23 during the month of February 2024.

Total Quality education and Value-based Education are exemplified in Dayalbagh. One needs skills and education that enable one to secure the necessities of life and values that make life and living worthwhile. Dayalbagh Educational Institute is well-recognized as one of the foremost Universities that emphasizes Value-based education along with skills. With the value perspective, one is able to see the world in terms of facts and events with their contextual reference and as a 'whole'. The system of holistic education prepares students for life with a strong belief in healthy democratic practices, pluralism, inclusivity and service to mankind.

At DEI, research that has a direct impact on both people and the planet is encouraged while also carrying out academic research in current areas of science and technology as well as humanities and social sciences. Climate change, food security, renewable energy and healthcare are some such areas. Their importance has been highlighted by the World Health Organization and United Nations as well.

Dayalbagh Educational Institute has committed itself to preserve and conserve the Air, Water, and Soil quality. Such activities have been carried out for more than a hundred years (108 Years). Therefore, samples are regularly collected, and critical and careful vigil is kept maintaining the air and water quality on a daily basis as per the standards of WHO, UNESCO as United Nations Sustainable Development Goals (SDGs).

Undergraduate research is encouraged through the award of fellowships and summer internship programs. Several vibrant international collaborations have been established for the students to acquire a global perspective while being firmly committed to solve local problems.

DEI's neighbouring communities are served through participation in impactful schemes like National Service Scheme (NSS), National Cadet Corps (NCC), Bharat Scouts and Guides, Unnat Bharat Abhiyan, Skilling India and others. Medical–cum– Rural Assistance Camps are held every week for neighbouring villages for providing consultation in health, hygiene, skilling, agroecology-cum-precision farming and employment. More than 400 such camps have been held.

This report highlights some prominent activities that have taken place in session 2023-24. While it captures the data, the intangibles that make Dayalbagh Educational Institute unique and progress in them must be experienced and seen to comprehend them fully.

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(Prof. C. Patvardhan)

# About the Institute

For over a century, the Dayalbagh Educational Institute has been a beacon of knowledge, nurturing some of the nation's brightest minds. Today, it stands as one of the premier Institutions in India. Located in Dayalbagh, on the northern periphery of Agra, Uttar Pradesh, the Institute is nestled adjacent to a self-sustained colony renowned for its tranquil atmosphere. Dayalbagh is a hub of secular establishments, including industries, educational institutions, and agricultural farms, offering an ideal environment for holistic education and growth.



#### **Brief History**

Shortly after the establishment of Dayalbagh in 1915, the Radhasoami Satsang Sabha founded the Radhasoami Educational Institute on January 1, 1917, as a co-educational middle school open to all. Guided by the lofty ideal of nurturing the "superman" of tomorrow, the Institute combined academic rigor with a focus on moral and spiritual values from its inception. Administered by a Managing Committee registered under the Societies Registration Act XXI of 1860, the Institute rapidly evolved, growing from a modest beginning into a pioneering educational establishment that continually adapts to societal needs.

Within just six months, the school was elevated to the status of a high school. Intermediate classes were introduced in 1922, and by 1947, it had become a degree college, offering B.Com. courses affiliated with Agra University. The curriculum expanded further with the addition of B.Ed. (B.T.) classes in 1951 and B.Sc. programs by 1955. A Technical School, initiated in 1927, developed into a college offering diplomas in Automobile, Electrical, and Mechanical Engineering, affiliated with the Board of Technical Education, U.P. The Leather Working School, founded in 1930, provided comprehensive training in leather goods

manufacturing. To promote women's education, Prem Vidyalaya, an Intermediate College for girls, was established in 1930. The Women's Training College, founded in 1947, initially offered B.A. and B.Ed. programs, later expanding to include M.Ed. in 1958, M.A. (Psychology/English/Hindi) in 1969, and M.A. (Music) in 1976, becoming one of the premier women's training colleges in India. An Engineering College, offering B.Sc. (Engineering) degrees in Electrical and Mechanical Engineering, was launched in 1950.

A milestone in Dayalbagh's educational history was the establishment of the Dayalbagh Educational Institute as a registered body in 1973, which unified all educational institutions in Dayalbagh, including the School of Comparative Study of Religions, the School of Languages, and the School of Art and Culture.

#### **The DEI Education Policy**

Education in DEI is rooted in its Education Policy (1975) with a focus on the development of all three dimensions of a human being, i.e., physical, mental and spiritual, which can be achieved by undertaking intellectual, physical and social activities. The DEI Education Policy was conceived, planned, formulated, crystallized and executed by the Supreme Teacher Param Guru Dr. MB Lal Sahab and was articulated in 1975. It laid down the following foundational concepts:

- Physical, intellectual, emotional and ethical integration of an individual.
- Evolve the complete man with values of humanism, secularism and democracy, to better equip him to solve social, economic and environmental challenges.
- Truthfulness, temperance and courage.
- Ideals of humility, simple living, selfless service and sacrifice.
- Habit of learning by developing the faculties of thinking, analysis and reason.
- General awareness and knowledge.
- Best in class-relevant education.
- Scientific temper.
- Respect for 'soiled hands', dignity of labour, and, self-reliance.
- Study of the classics, and pride in national culture and heritage.
- Shaping each student for a calling suited to his aptitude, skills and the needs of society.
- Understanding of various beliefs and faiths, which fosters an attitude of tolerance and national unity.
- Engendering the spirit of 'Brotherhood of Man', and promoting the establishment of a classless and casteless society.
- Fuller understanding of rural life, to appreciate the polity, economy and the social forces at work in our country.
- Democratic values and freedoms which an Indian citizen should be prepared to defend respect for the rights of others and an awareness of duties and obligations to society.
- Strong character and high ethical standards.

Committed to providing a high-quality cutting-edge academic environment for its students, DEI's educational programmes provide opportunities for creativity and hands-on work experience on live projects, woven in with a strong value system. DEI endeavours to achieve quality in Higher Education through the ISM (Interpretative Structural Modeling) and Total Quality Management Frameworks shown in Figure 1A and 1B.

In 1981, the Ministry of Education, Government of India, granted the Dayalbagh Educational Institute the status of a Deemed-to-be University to implement its forward-thinking educational schemes enunciated in the Dayalbagh Education Policy. The Institute subsequently became a member of the Association of Indian Universities.

Over the years, the Institute expanded its academic and administrative control. From the 1986-87 session, the DEI Technical College, a diploma-level engineering institution, was integrated into the Institute. The DEI Prem Vidyalaya Girls' Intermediate College followed in 1995-96, and the REI Intermediate College (Boys) in 2012-13. In 2004, the Women's Polytechnic was established, along with a major initiative in Distance Education to benefit students at urban-suburban interfaces. DEI's vocational education programs, which began in 2004, anticipated many elements of the AICTE NVEQF and MHRD Community College schemes that emerged almost a decade later. These programs align with several national missions aimed at socio-economic development, including:

- The National Mission of Sarva Shiksha Abhiyan Universal Elementary Education under the Right to Education Act
- Make in India
- Skilling India
- Digital India
- Clean India (Swachh Bharat Abhiyan)
- Unnat Bharat Abhiyan
- Beti Bachao Beti Padhao Abhiyan
- Green India

The Institute encompasses faculties in Arts, Commerce, Education, Engineering, Science, Social Sciences, and AYUSH. In 2009, the Dayalbagh Educational Institute was placed in the First Category of 38 "Deemed to be Universities" among 126 "Deemed to be Universities" reviewed by the Ministry of Human Resource Development (MHRD), Government of India and was adjudged to be at the 3rd rank among the 126 "Deemed Universities". In 2019, the National Assessment & Accreditation Council (NAAC) assessed the Institute and placed it in the category of 'A+' Grade Universities. Recently, the Institute has been included in the list of "Deemed to be Universities" under section 12B of the UGC Act, 1956. The Institute has been awarded the ISO 21001: 2018 Certification. According to the NIRF Ranking declared by Ministry of Human Resources and Development, the Institute is placed in the Band 101-151 in the Category of University, 120th rank in the Category of Engineering and 88th Rank in the Category of Management. The Electrical Engineering and Mechanical Engineering programs of the Faculty of Engineering are accredited by the National Board of Accreditation (NBA), valid until June 30, 2025. The Institute remains open to all, regardless of caste, creed, race, religion, economic status, or social background.

#### Vision and Mission

To provide linkages to all stakeholders' potential 'Values and Quality' to the kinetic permanent state in a dynamically oriented and refreshed equilibrium through integrated hierarchical system of education enabled by economic and flexible (jugaad) innovation technology founded firmly on DEI's Education Policy.

DEI, a leading Entrepreneurship and Consciousness, Teaching-cum-Research Institute, is a model University, measured by its 'excellence, but not at the cost of social relevance' reaching up to the last, the least, the lowest and the lost; pursuing research and discovery with frugal innovations contributing with principle of achieving more with less for nation and community-building and beneficial to public at large with cultural reforms enriching

and empowering weaker / under-privileged sections, women and children. In the year 2004, DEI defined its VISION 2011. This policy heralded many features that have later been incorporated in the Nation's education policy and programs. DEI has been a visionary and forerunner in adopting innovative schemes in the field of education.

#### **VISION 2031**

The Dayalbagh Educational Institute has embarked upon a bold initiative, VISION 2031, and formulated a comprehensive and progressive Strategic Plan for 2012-2031, with the goal to become a top teaching-cum-research Institute through an exemplary system of education. The Institute is confident of achieving success with the cooperation of faculty, staff, students, alumni and other interested partners.

To establish Total Quality Management across all activities of the University, the Plan encompasses undergraduate and postgraduate education, research, infrastructure, information and communication technology and campus development.

#### **Mission Objective**

Development of super-intelligent (super-conscious) humans who are self-governed and render selfless service in a rapidly changing global scenario. Education in Dayalbagh provides the linkages for this kinetic state in dynamic equilibrium.

Linkages must be provided at all levels of hierarchy, right from pre-nursery to higher education, through an integrated education system. With technology intervention, this can be extended to the global level. The DEI Education Policy also offers a minimal-input to maximum-output approach through an economic, frugal (Jugaad) and flexible model. The DEI Education model is based on an experiential system rooted in Eastern spirituality and wisdom on the one hand, and modern scientific concepts and Western materialism on the other. While modern science provides solutions to mysteries of the physical world, Saints of the East had knowledge of the highest spiritual regions and consciousness, evolving to better worldliness. At DEI, teaching institutions, industries and agricultural farms provide the three-dimensional activities for teaching-learning, production, and extension. The social service, work experience, educational innovation, cultural moorings, national integration and vocational training programmes are aligned with academic curricula. A teachinglearning community, including students and staff from pre-nursery to higher education from all castes, creeds, communities, and religions, works toward integrated community development.

#### **MAJOR GOALS**

DEI has identified the following major goals:

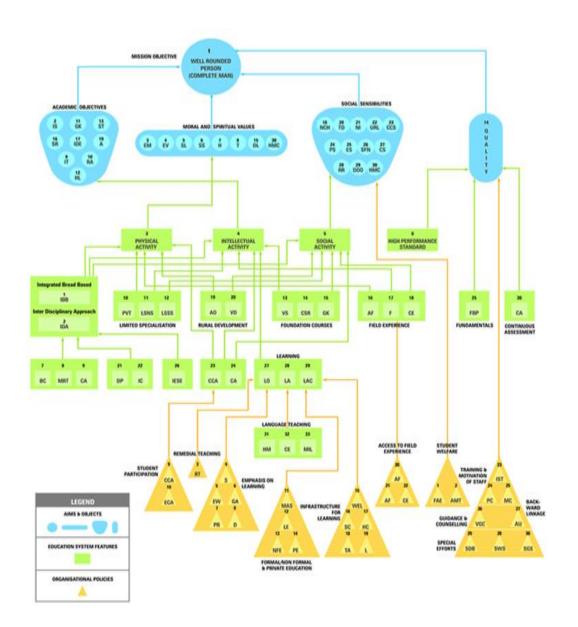
- Strengthen Entrepreneurial Education giving access to all applicants, even those without means
- Integrate agricultural farming and dairy education with Entrepreneurial and Consciousness Studies
- Emerge as an Entrepreneurial and Consciousness University.

#### Philosophy

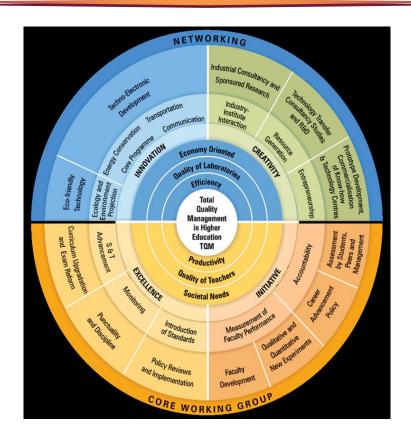
The Institute has introduced a scheme of innovative and comprehensive education at university and other technical and general school/college education levels, which,

- Aims at excellence but not at the cost of relevance.
- Inculcates dignity of labour and encourages initiative and creative work.

- Is multi-disciplinary, which prepares individuals for the increasingly technooriented society of tomorrow without uprooting them from their agricultural moorings.
- Aims at generating in the 'Students' the basic values of humanism, secularism and democracy by exposing them to the principles of all the major religions of the world and to their own cultural heritage, thus developing in them an integrated personality of well-adjusted men and women whose 'world has not been broken into fragments by narrow domestic walls'.



#### Figure 1A: Interpretive Structural Model for Educational Policy of DEI



#### Figure 1B: A Conceptual model for the Total Quality Management (TQM) framework through which DEI endeavours to achieve quality in Higher Education (Revered Professor P. S. Satsangi, 2002, 'TQM in Higher Education and Technical Education)

At DEI, in addition to the traditional 3R's of Reading, Writing and Arithmetic, emphasis is laid on the importance of conserving and incrementally nurturing the state of self-actualization of a child from the time of birth. Since the needs, motivation and education vary from individual to individual throughout their lives, DEI attempts to make the initial conditions as favourable as possible. Therefore, education here begins at the tender age of three weeks with the Superman Evolutionary Scheme, under which infants from the age of 3 weeks to 12 years and their parents, undertake various activities in the community agricultural fields as part of their daily routines. Our observation is that such activities, along with the emphasis that we place on minimalism, better worldliness, selflessness, sacrifice and frugal innovation, inculcate and nurture mental and spiritual development.

The Institute offers a whole range of central facilities to its students. These include Central Library, Computer Centre, Games and Sports facilities, Gym, Vehicle Parking, Security & Surveillance, Hostels, Language Laboratories, Medical and Health Care Centre, Multimedia Laboratory, Non-Resident Students' Centre and Canteen. 'Quantum and Nano-Computing Virtual Centre' (QNCVC), a multi-disciplinary research centre has been set up in the Institute, under Ministry of Human Resource Development, Govt. of India, through its National Mission on Education. The Centre has IIT Kanpur, IIT Delhi and IIT Madras as partners besides several international collaborators. The 'Centre for Consciousness Studies (CCS)' has also been established to undertake research pertaining to this fast-emerging domain of knowledge. CCS hosts on regular basis leading luminaries in the field from across the world for lecture series, focused workshops and seminars/conferences.

#### Advisory Committee on Education (ACE), Dayalbagh Educational Institutions

The Advisory Committee on Education (ACE) is a non-statutory body which serves as a think tank to the Dayalbagh Educational Institute and its sponsoring body. The Advisory Committee on Education (ACE) is currently chaired by Most Revered Professor Prem Saran Satsangi Sahab, Ex Director, Dayalbagh Educational Institute and consists of academicians and experts from various national and international institutes of repute as its member. The ACE guides various stakeholders of the DEI and its sponsoring body by way of consensus building. The ACE focusses on Trinity (Triumvirate) of Innovations at the upper mode level, Qualities at the middle mode level and Values at the lower mode level particularly in the context of "Science of Consciousness". The ACE provides requisite help at every step towards achieving success in laudable objectives at all levels of Education from Pre-Nursery to DSc/D Litt and the Research projects being pursued earnestly in DEI at all levels (UG/PG/PhD/Post-Doctoral) including unskilled, semi-skilled and skilled, technical and administrative supporting staff. The list of members is given below:

Name	Designation	Affiliation
Prof. P S Satsangi Sahab Ex Director, Dayalbagh Educational Institute	Revered Chairman	Advisory Committee on Education, Dayalbagh Educational Institutions
Prof. V B Gupta	Vice-Chairman	Advisory Committee on Education, Dayalbagh Educational Institutions
Prof. C. Patvardhan	Director (Officiating)	DEI
Prof. Pami Dua	Former Director	Delhi School of Economics
Prof. S. S. Bhojwani	President Technical and Financial Advisor	MCREI Department of Agroecology-cum- Precision Farming, Dayalbagh
Prof. Prem Kumar Kalra	Former Director	Dayalbagh Educational Institute
Prof. P. K. Kalra (IIT Delhi)	Former Professor	IIT Delhi
Prof. Ravi Kanta Chopra	Retired Professor	NCERT, New Delhi
Shri V. Prem Swarup	Adjunct Professor	DEI
Prof. Ira Das	Emeritus Professor	DEI
Prof. D. S. Mishra	Emeritus Professor	DEI
Prof. K C Vashistha	Retired Professor	DEI
Shri P P Dua	Retired Principal	DEI Technical College
Prof. S P Kaushik	Principal	Radhasoami High School, Timarni
Prof. Poornima Jain	Emeritus Professor	DEI
Smt. Sneh Bijlani	Treasurer	DEI
Prof. Anand Mohan	Registrar	DEI
Dr. RMM Singh	Retired as Registrar	DEI
Prof. Vishal Sahni	Emeritus Professor	DEI
Prof. J. K. Verma	Professor	DEI
Prof. Sanjeev Swami	Professor	DEI
Prof. Gursaran	Professor	DEI
Prof. K. Santi Swarup (Secretary & Convener)	Professor	DEI
Prof. Sukhdev Roy (Secretary & Convener)	Professor	DEI

#### **Extrinsic and Intrinsic Education**

The Dayalbagh Educational Institute (DEI) has crafted an educational framework that holistically addresses the physical, mental, and spiritual needs of its students through a thoughtful integration of intrinsic and extrinsic education.

**Extrinsic Education:** This component encompasses tangible outcomes such as skill development, numeracy, employability, and subject matter expertise. These elements are fundamental to all educational systems and ensure that students are well-prepared for professional and academic challenges.

Intrinsic Education: Central to DEI's philosophy, intrinsic education focuses on cultivating core values, qualities, and attributes in students, including truthfulness, justice, tolerance, brotherhood, and selflessness. These values are essential for personal growth and the advancement of the community. Intrinsic education is an intangible, lifelong, self-learning process that begins at the outset of a student's journey and is continuously nurtured throughout their education.

By blending intrinsic and extrinsic education, DEI fosters a 'person-for-community' mindset rather than a 'person-for-self' approach. This holistic education model not only equips students with practical skills but also instills a sense of responsibility and commitment to societal well-being. Additionally, DEI's programs and activities actively contribute to the achievement of the United Nations Sustainable Development Goals (UN SDGs), promoting a sustainable and equitable future for all.

#### **Core Principles and Practices**

- *Selfless Service and Sustainability:* DEI encourages a spirit of selfless service and sacrifice for the greater good, advocating a frugal and Earth-friendly lifestyle. The Institute's educational approach integrates 'magnification'—the development of the inner self—and 'scaling-up'—practical processes in the physical world that lead to profit and pleasure. This balance ensures holistic personal development guided by the maxim "Fatherhood of God and Brotherhood of Man."
- *Accessibility and Inclusivity:* With a low fee structure, DEI provides opportunities to the marginalized, underprivileged, and economically disadvantaged, embodying its commitment to inclusivity and equal access to education.
- Decentralization and Outreach: Embracing shared responsibility and accountability, DEI has adopted decentralization to extend education directly to learners. This initiative has led to the establishment of ICT Ceentres in Delhi. Melathiruvenkatanathapuram (Tamil Nadu), Timarni (Madhya Pradesh), Bengaluru, Murar (Bihar), and Amritsar (Punjab), ensuring educational access across diverse regions.
- *Research Excellence and Societal Relevance:* DEI emphasizes a combination of research excellence with societal relevance. Locally, the Institute collaborates with communities, governments, and NGOs to address pressing issues, providing students and scholars with experiential learning opportunities that benefit society. Internationally, DEI partners with institutions in Asia, America, and Europe to enhance its global reach and facilitate knowledge exchange through joint conferences, seminars, workshops, faculty and student exchanges, shared projects, publications, and common curricula.
- *Remote Learning and Accessibility:* Supported by alumni and friends, DEI has established over 400 remote learning centres across India and abroad. These centers aim to provide educational access to individuals in remote and underserved areas, ensuring that learning reaches the last mile.

- *Skill Development and Entrepreneurship:* Skill development and entrepreneurship have been integral to Dayalbagh system of education since its inception in 1917. In alignment with the Government of India's objective to cultivate a highly skilled workforce for nation-building, DEI has launched numerous vocational courses and initiatives:
  - Vocational Training: Recognized by the then Ministry of Human Resource Development (MHRD) (now MoE) and the Government of Uttar Pradesh as a key public sector agency for vocational training, DEI is one of the largest skill providers in the country. The Sector Skill Council for Green Jobs has certified DEI as the best Solar Skill Training Institute.
  - Entrepreneurship Development: DEI has advanced entrepreneurship through well-established laboratories and Skill Parks in various fields, including Automotive Workshops, Apparel and Toy Manufacturing, Agro and Dairy Business, and Consciousness Studies. Initiatives such as intelligent marketing networks connecting rural and tribal areas to global markets, e-Portals, Business Advisory Clinics, and rural resource centers/incubators (karkhanas) in rural zones accelerate entrepreneurial activities and support student ventures.

The Dayalbagh Educational Institute's educational framework is a comprehensive blend of intrinsic and extrinsic education, fostering holistic development, community-oriented values, and practical skills. DEI's commitment to universal access, research excellence, and entrepreneurial spirit ensures that it remains a beacon of transformative education, contributing meaningfully to society and national progress.

#### Working towards a Sustainable World

Dayalbagh Educational Institute (DEI) is deeply committed to fostering sustainability in every aspect of its mission and operations. The Institute recognizes that true progress is measured not only by technological and academic advancements but also by the positive impact these have on the environment, society, and future generations. DEI's approach to sustainability is holistic, integrating environmental stewardship, social responsibility, and economic viability into its educational and research initiatives.

- *Environmental Stewardship:* DEI actively promotes practices that protect and enhance the natural environment. This includes initiatives focused on air and water quality, sustainable agriculture, renewable energy, and waste reduction. The Institute's research and development efforts are geared towards creating innovative, eco-friendly technologies and methodologies that can be implemented at both the local and global levels. Through programs like the SIGMA SIX Q-V-I-A (Quality, Values/Valuation, Innovation, and Attributes: Smart, Mobile, Resilient) approach, DEI is dedicated to improving the quality of life while minimizing the environmental footprint.
- *Social Responsibility*: At DEI, sustainability also means uplifting communities and fostering social equity. The Institute's educational model emphasizes the development of values such as duty, humility, and justice, which are crucial for nurturing a responsible and conscious citizenry. DEI's focus on inclusive education, affordable access, and outreach through decentralized campuses ensures that education and opportunities reach the underserved and marginalized sections of society, thereby contributing to social sustainability.
- *Economic Viability:* DEI understands that for sustainability to be effective, it must be economically feasible. The Institute's emphasis on entrepreneurial education, skill development, and innovative research is designed to create sustainable economic

opportunities that benefit both individuals and communities. By promoting local industries, agriculture, and dairying, DEI supports the creation of jobs and the enhancement of livelihoods, contributing to the economic stability and resilience of the regions it serves.

• *Global Impact:* DEI's commitment to sustainability extends beyond national borders. Through its international collaborations and partnerships, the Institute works to address global challenges such as climate change, resource scarcity, and social inequality. DEI's research initiatives are aligned with the United Nations Sustainable Development Goals (UN SDGs), ensuring that its contributions are in harmony with global efforts to create a more sustainable and equitable world. DEI's recent collabotative pursuit with International Centre for Applied Systems Science and Sustainable Development (ICASSSD), Western University, Canada is quite noteworthy in this context.

DEI's work towards a sustainable world is rooted in a deep understanding of the interconnectedness of environmental, social, and economic factors. By integrating these elements into its core mission, DEI not only educates future leaders but also actively participates in building a sustainable future.

DEI's research focus is on developing methods, procedures, and technologies that are tailored to the unique needs of Indian society. These innovations are designed to be cost-effective, ensuring widespread accessibility across all social strata and aiming to enhance the overall quality of life for the masses. This approach is encapsulated in DEI's unique SIGMA SIX Q-V-I-A strategy, which seeks to achieve excellence by integrating Quality (Q), Values/Valuation (V), Innovation and Attributes: Smart, Mobile, Resilient (A).

#### The SIGMA SIX Q-V-I-A Approach

This holistic approach weaves together six fundamental elements essential for improving livelihoods, with a strong focus on enhancing the Quality (Q) of life. The six key components are:

- *1. Innovation:* Developing new and effective solutions tailored to local needs.
- *2. Air Quality:* Ensuring cleaner air for healthier living environments.
- *3. Water Quality:* Promoting access to safe and clean water.
- *4. Health and Education:* Enhancing healthcare services and educational opportunities.
- *5. Agriculture and Dairying:* Advancing sustainable practices in agriculture and dairy farming.
- 6. Values: Upholding virtues such as Duty, Beauty, Humility, Courage, Temperance, Wisdom, Loyalty, and Justice.



The cumulative interaction of these six components produces a synergistic effect, where their combined impact far exceeds the sum of their individual contributions. This synergy leads to significant, positive changes within the community, reflecting DEI's commitment to fostering a better quality of life for all.

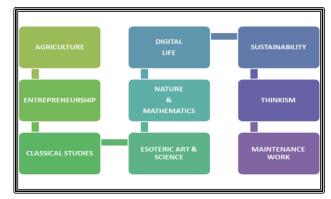
In essence, DEI's SIGMA SIX Q-V-I-A approach is a testament to the Institute's dedication to research and innovation that not only meets the highest standards of excellence but also remains deeply relevant to the needs of society. Through this model, DEI continues to drive transformative change, ensuring that its contributions resonate far beyond the academic sphere, touching lives and uplifting communities. The cumulative effect of all the six components is many times more than the sum of their individual effects that leads to a synergistically enhanced impact on the system.

#### **Research with Impact, Engaging with Communities**

The Institute embraces a Living Lab approach, which embodies the essence of experiential education by focusing on skill development in globally significant and emerging technological fields such as Renewable Energy, the Internet of Things (IoT), Dairy Technology, and Water, Health, and Sanitation, among others. Drawing on its rich history, current academic strengths, and a forward-looking perspective on global challenges, DEI has strategically identified Nine (9) multidisciplinary research areas to spearhead its innovation efforts.

These areas are:

- 1. Agriculture
- 2. Entrepreneurship
- 3. Classical Studies
- 4. Digital Life
- 5. Nature and Mathematics
- 6. Ecosteric Art & Science
- 7. Sustainability
- 8. Thinkism
- 9. Maintenance Work



These research domains are at the forefront of global discourse among technologists, particularly in addressing the evolving role of humanity in an era dominated by superintelligent machines. By breaking down traditional departmental and faculty boundaries, DEI has established multidisciplinary research divisions that converge diverse expertise from science, humanities, technology, and management. This integrated approach ensures that DEI remains a leader in addressing the complex challenges of the future, fostering innovation that is both relevant and impactful on a global scale.

#### Lab-on-Land Innovation & Entrepreneurial Education

DEI has pioneered the Lab-on-Land concept in key areas such as dairy farming, renewable energy, security, and surveillance. This innovative approach addresses real-life challenges by conducting hands-on research and experiments designed to solve pressing issues. DEI plans to extend this concept to agriculture through diversification efforts. Lab-on-Land initiatives will be implemented across all its centres and locations, focusing on technological interventions that train students in precision agriculture and methods to increase crop yield, enabling the cultivation of three different crops per year. By diversifying agriculture, DEI aims to build enterprises around the green (agriculture) and white (dairy) economies throughout the country.

Notably, DEI is the only academic institution in North India with FSSAI and HACCP certification, allowing it to export flavored milk to the USA. This achievement underscores DEI's commitment to leading the second White Revolution and harks back to the 1930s, when the Dayalbagh Dairy was recognized as the best in Asia.

Entrepreneurial Education at DEI has a distinct and transformative approach. The Institute is deeply involved in mobilizing marginalized and resource-limited youth, guiding them to engage purposefully with any of the six pillars of DEI's educational framework. One of DEI's key initiatives includes organizing fortnightly medical camps in rural areas through the NSS wing. These camps provide not only free medical check-ups but also skill-building activities for children, referred to as "hole in the wall" experiments. These activities break through social and economic barriers, offering youth the opportunity to explore and access a world of possibilities for growth and development.

In addition to healthcare, these camps offer agricultural counselling, helping to bridge the gap between rural communities and advanced agricultural practices. DEI aspires to engage all students, regardless of their financial means, by creating ample opportunities for them to earn a livelihood while pursuing their education. This initiative aims to bring more students into mainstream education, fostering their academic and personal growth while building their scholarship.

#### **Agriculture, Consciousness and Entrepreneurship**

Agriculture, Consciousness Studies, and Entrepreneurship form the three core thrust areas of DEI. These domains seamlessly connect the past with the future, blending frugal engineering with cutting-edge technologies, and combining traditional hands-on practices like tilling and toiling with sophisticated, higher-order thinking. A focus on maintaining a healthy body and mind, coupled with practices such as ultra-transcendental meditation, promotes inner well-being and a stress-free lifestyle, fostering progress unhampered by negative influences.

Dayalbagh's agricultural output is extensive, covering 1,200 acres dedicated to the cultivation of grains, fruits, vegetables, flowers, and medicinal plants. Remarkably, during the lockdown period, the agricultural produce was both abundant in quantity and diverse in variety. The total yield of green fodder, encompassing Rabi, Kharif, and Zaid seasons, reached 40,184 quintals, the highest in the past five years. The collective social work by the Dayalbagh community, along with DEI students, staff, and faculty, contributes not only to a healthy lifestyle but also to food security, healthcare, and selfless service to humanity.

The Dayalbagh community's routine, which includes twice-daily agricultural activities combined with congregational prayers open to all, has significantly benefited members by maintaining their physical health and mental alertness. This schedule has also enhanced their consciousness, inner peace, and optimism in life.

Another cornerstone of DEI and Dayalbagh's sustainable development is the Gaushala, which houses around 1,100 cows. Over the past one year period, the average milk production has been around 1,500 litres per day, with a peak output of 1,957 litres. The milk from the Gaushala is processed in the DEI Dairy, which is equipped with pasteurization, homogenization, testing, and packaging facilities for milk and dairy products. DEI's dairy products, including flavoured milk, butter, chocolates, ice cream, fudges, truffles, basundi, burfi, hot milk, curd, ghee, shrikhand, and more, are freshly produced every day. Despite the challenges posed during and after COVID-19 pandemic, the dedication remained unwavering. On some days, as much as approximate 700 litres of milk were processed, with an average of 180 litres handled daily by the DEI Dairy. Similarly, more than 200 litres of tea were prepared for distribution to field workers on peak days, with an average of more than 100 litres brewed daily. During the pandemic, the Dairy processed approximately 6,000 litres of milk and 3,500 litres of tea per month. Additionally, butter production increased to about 4,000 cakes of fifty grams each week.

This relentless commitment to service and community welfare underscores DEI's role in sustaining and enhancing the well-being of its members and the wider society.

#### Air and Water Quality Monitoring and Assessment at Dayalbagh

At Dayalbagh, we have established a Modern Health Care Habitat to ensure health and personal security, complete with integrated self-defence mechanisms. This goal is realized through our SIGMA SIX QVIA framework, which emphasizes Quality, Values/ Valuation, Innovation and Attributes: Smart, Mobile, and Resilient. As part of this initiative, water and air quality at Dayalbagh are regularly monitored to maintain optimal living conditions and safeguard the well-being of our community.

#### **Development of Biodiversity Parks and Agriculture Fields**

Biodiversity parks and agricultural fields have been developed, offering expansive open spaces that serve as ideal platforms for teaching and conducting Lab-on-Land activities. These areas enhance educational experiences and allow for the maintenance of social distancing and other safety precautions.

# **Organisational Structure**

The senior administration of the Institute consists of the following.

President	Shri Gur Saroop Sood
Director	Prof. C. Patvardhan
Treasurer	Ms. Sneh Bijlani
Registrar	(Retd.)Prof. Anand Mohan

### **Administrative and Academic Bodies**

#### Primary Body

The Primary Body of the Institute consists of 25 members which includes the President (Chairman), Director, Treasurer, Deans of Faculties, six members nominated by the General Body of the Institute; a nominee of the Ministry of Education, Government of India; Secretary Education, U.P.; a nominee of the All India Council for Technical Education; one nominee each of the three educational societies, viz. the DEI Women's Training College Society, the DEI Engineering College Society and the Managing Committee of the Radhasoami Educational Institute of Agra; a nominee of the Dayalbagh Medical Relief Society, a nominated trustee of the Dayalbagh Educational Trust and two nominees of the President of the Institute. The Registrar is the ex-officio Secretary of the Primary Body. Generally, the Primary Body meets once every year.

#### Governing Body (Board of Management)

The Governing Body of the Institute consists of 14 members which include the Director (Chairman), Treasurer, two Deans from amongst the Faculty of the Institute by rotation; a nominee of the Ministry of Education, Government of India; a nominee of the Chairman, UGC; Director, Higher Education, U.P.; a nominee of the Academic Council of the Institute from amongst its members; a nominee of the Radhasoami Satsang Sabha, Dayalbagh; a nominee of the Managing Committee of the Radhasoami Educational Institute of Agra; a representative each of Industry and Agriculture of Dayalbagh nominated by the President of the Institute. The Registrar is the ex-officio Secretary of the Governing Body. The Governing Body meets as often as necessary. The Board of Management (Governing Body) of the Institute consists of 14 members mentioned as below. The Board of Management (Governing Body) meets as often as necessary but at least four times a year.

- 1. Director, DEI
- 2. Treasurer, DEI
- 3. Two Senior Most Deans of Faculties
- 4. Nominee of Ministry of Education, Govt. of India
- 5. Director, Higher Education, U.P., Prayagraj
- 6. Nominee of R.S. Sabha, Dayalbagh
- 7. Justice G.S. Solanki Retired Judge, High Court, Jabalpur, Madhya Pradesh
- 8. Shri Ravi Kumar Sinha Former CEO & Managing Director, SRF Ltd, New Delhi
- 9. Prof. S.S. Bhojwani Former Professor of Botany, University of Delhi & Ex-Director, DEI.

- 10. Prof. Pami Dua Professor, Delhi University, New Delhi
- 11. Prof. V. B. Gupta Former Professor of Textile Technology, IIT, Delhi
- 12. Prof. P. Sriramamurti Former Professor, Dept. of Sanskrit, Andhra University upto 12 Feb., 24 and subsequently Prof AM Kayastha, BHU, Varanasi
- 13. Registrar, DEI (Ex-officio Secretary)

#### Academic Council

The Academic Council of the Institute consists of the Director (Chairman), Deans of Faculties; Heads/ In-charges of all the teaching departments in the University faculties, who are not Deans; members of the teaching staff of each faculty not below the rank of a lecturer who is not the Dean, Head or In-charge from each Faculty in order of seniority by rotation; Principals of all the non-University educational institutions; the Director of Technical Education, U.P.; a nominee of the Chairman, U.G.C.; two specialists in industry nominated by the Governing Body; and five eminent members in the field of Arts and Culture, Commerce, Education, Engineering and Science nominated by the Governing Body. The Registrar is the ex-officio secretary of the Academic Council. The Academic Council meets as often as necessary.

#### • Finance Committee

The Finance Committee of the Institute consists of the Director (Chairman), Treasurer, a nominee of the Department of Finance, Government of U.P. and two nominees of the Governing Body, one of whom is a Dean and a nominee of the U.G.C. The Registrar is the exofficio Secretary of the Finance Committee. The Finance Committee meets at least twice a year.

#### • Managing Council for Non-University Technical Educational Institutions

The Managing Council for the Non-University Technical Educational Institutions consists of the Director (Chairman), Treasurer, Principals of the non-University technical educational

institutions, one teacher from the non-University technical educational institution not below the rank of lecturer by rotation in order of seniority, two nominees of the Governing Body from its members; Director, Technical Education U.P., one nominee of the Northern Regional Office, A.I.C.T.E., one nominee of the Managing Committee of the Radhasoami Educational Institute. The Registrar is the ex-officio Secretary of the Council.

#### • Managing Council for Non-University General Educational Institutions

The Managing Council for the Non-University General Educational Institutions consists of the Director (Chairman), Treasurer, Principals of the non-University general educational institutions, one teacher from the non-University general educational institution not below the rank of teacher by rotation in order of seniority, two nominees of the Governing Body from among its members; Director, Secondary Education, U.P.; one nominee of the Ministry of Education; one nominee of the Managing Committee of the Radhasoami Educational Institute of Agra; one nominee of the DEI Prem Vidyalaya Society, Agra; one nominee of the DEI Higher Secondary School Society, Agra and two eminent persons, not members or employees of the Institute, nominated by the President. The Registrar is the ex-officio Secretary of the Council.

#### • Board of Studies / Faculty Board

The Board of Studies consists of the Head of the Department as Chairman, all Professors of the Department, one Reader and two Lecturers and external expert(s). There is a duly

constituted Faculty Board for each Faculty. It comprises all the Professors and Heads of Departments of the Faculty and two external experts, with the Dean as the Chairman. The recommendations of the Board of Studies regarding revision of syllabus and /or new courses approved by the Faculty Board are placed before the Academic Council of the Institute before implementation. The Faculty Boards meet at least once every year.

#### • Research Degree Committee

The Research Degree Committee closely monitors issues related to research work leading to the award of the Ph.D. degree. The members include the Director, concerned Dean, Head of the Department, and two external experts in the subjects. The supervisor of the candidate is the co-opted member of the Committee.

In addition to Deans of various Faculties, DEI has the following posts:

- Dean, Post-Graduate Studies & Research
- Dean, Under-Graduate Studies
- Deans, DEI-ICT Distance Education Centres
- Officer on Special Duty (Amenities, Beautification and Core Courses)
- Dean, Non-University Institutions
- Dean, Planning
- Dean of Student Affairs
- Dean, Research and Development
- Dean, Outreach

#### **Members of Planning & Monitoring Board**

- 1. Director Chairman
- 2. Registrar Secretary
- 3. Prof. C. Patvardhan Member
- 4. Prof. Vijay Kumar Gangal Member
- 5. Mr. Vijay Prakash Malhotra Member
- 6. Dr. (Ms.) K. Soami Daya Member
- 7. Prof. (Ms.) Vibha Nigam Member
- 8. Prof. S.K. Sharma Member
- 9. Prof. D. Bhagwan Das Member
- 10. Prof. (Ms.) C.M. Chaturvedi UGC Nominee
- 11. Mr. M. Asad Pathan External Member
- 12. Prof. Prem Kumar Kalra, IIT, Delhi External Member

#### **Administrative Staff**

Administrative Officer (Computers)	Mr. H. K. Khanna
Assistant Registrar (Academic)	Vacant
Assistant Registrar (Accounts)	Vacant
Assistant Registrar (Administration)	Vacant
Assistant Registrar (Examination)	Mr. Gur Sewak Singh

List of members of Board of Management (Governing Body), Finance Committee, Managing Council and Academic Council can be seen in **Annexure-I** 



#### 42<sup>nd</sup> Convocation

The 42<sup>nd</sup> Convocation of the Institute was held on 20 January 2024. Most Revered Prof. P.S. Satsangi Sahab, Chairman, Advisory Committee on Education (A non-statutory body serving as a think-tank for Dayalbagh Educational Institutions) Graced this event with His August Presence. Most Respected Rani Sahiba also made her benign presence to witness the proceedings of the Convocation. Shri K. Sanjay Murthy, I.A.S. Secretary, Ministry of Education, Department of Higher Education, Government of India, was the Chief Guest on this occasion. Although he could not be physically present during the event, he sent his recorded Convocation Address which was played before the gathering. Shri Murthy, while commending how DEI has been at the forefront of implementing the reforms proposed by the New Education Policy 2020, congratulated the Institute for contributing to all the seventeen United Nations' Sustainable Development Goals. He was also presented the Lifetime Achievement Award on behalf of the Systems Society of India during this ceremony.

The Convocation ceremony began after the robed Academic Procession had reached the 'Shiksha Srot Bhavan' (Convocation Hall) and the members had taken their respective seats. After the rendering of the Institute's Prayer, Prof. C. Patvardhan, Officiating Director, DEI, sought permission from Shri GS Sood, President, DEI, and declared the Convocation open. Thereafter, the Officiating Director, acknowledging most of the notable progress made during his predecessor Prof P K Kalra, presented his Annual Report in which he shared the overview of the outstanding feats notable of DEI based on the mantra of 'Excellence with relevance'. Stressing the contribution of DEI towards the development of Dayalbagh as a Modern Sustainable Healthcare Habitat, Prof. Patvardhan also mentioned several transformative missions initiated by the Institute, like the mission to revitalize the Yamuna River, Camel-rearing initiative, Holistic educational advancements, like, the establishment of the Knowledge for Change (K4C) hub, organization of Research Summit with the help of Springer Nature, etc.



This was followed by conferring various Degrees, Medals, and Awards and signing of the Scroll of Honour by the Director. This year, 4829 students obtained degrees and diplomas in various courses of DEI. 01 Founder's Medal, 149 Director's Medals, 03 President's Medals, and 90 Ph.Ds. were awarded. 2829 Undergraduate degrees, 726 Postgraduate degrees, 64 Postgraduate diplomas, 559 Diplomas in Engineering and Polytechnic, 238 High School, and 318 Intermediate Certificates, were distributed among students. For securing the highest grade point in All Undergraduate Examinations, 2023, Aditi Rathore and Aman Pratap Singh were awarded the President's Medals whereas for securing the highest grade point in All Postgraduate Examinations, 2023, Tanu Kaur received this prestigious medal. Drishti Goel received the most coveted Founder's Medal for being the Best All-rounder Student among the First-Degree Students of the Institute graduating in the year 2023. During the ceremony,

six eminent persons, Shri Gur Saroop Sood, Prof. C. Patvardhan, Prof. Sahab Dass, Prof. Swami Saran Srivastava, Dr. Sarup Rani Mathur, and Air Commodore Amit Tyagi, were presented the 'Distinguished Alumni Award' for the year 2023.

#### Founder's Day

DEI celebrated its Founder's Day with unparalleled zeal, enthusiasm, and fervour on 31 January 2024. This day holds special significance as it marks the Auspicious Birth date of Most Revered Dr. M. B. Lal Sahab, the Founder Director of DEI. The Founder's Day celebration, also known as 'Open Day', witnessed a spectacular display of achievements and initiatives undertaken by the students, faculty, and staff of DEI. The entire campus came alive with activities, displays, and colourful decorations, creating an atmosphere of joy and celebration. The event showcased the dedication and hard work of DEI students, who presented their innovative projects, and creative works through various mediums, such as graphical charts, working models, display boards, and interactive activities. The layout of the arrangement was carefully planned, allowing visitors to explore the new initiatives and high performances across different fields of study. A total of 41 stalls were arranged, exhibiting models and activities related to various fields, including Ceramic and Pottery, Agriculture Technology, Greenhouse Technology, Sustainable Development Goals, Patents, Research, Dairy Technology, 3-D Printing, Nano and Quantum Sciences, Consciousness Studies, Drones, Artificial Intelligence, Online, and Distance Education programmes, Leather Technology, Anupam Upwan, Unnat Bharat Abhiyan, Alumni Placement, Medical Camp, DEI Education Policy, History of DEI, Admission Process, and Examination, etc. The organization of Bhakti Sangeet on the campus added a spiritual element to the dignified event.



A meeting of the Advisory Committee on Education (a non-statutory body serving as a think tank for Dayalbagh Educational Institutions) was specially convened to extend the heartiest obeisance, homage, and tribute at the lotus feet of Most Revered Dr. M.B. Lal Sahab, acknowledging His pivotal role in spearheading the Higher Education Programme at DEI. The meeting served as a platform to illuminate the extraordinary progress achieved through the implementation of Holistic Educational Programmes and Practices, all of which have thrived under the Divine Guidance of Most Revered Prof. P.S. Satsangi Sahab, Chairman of the Advisory Committee on Education and the Eighth Acclaimed *Waqt Sant Satguru* of the Ra-Dha-Sva-Aa-Mi Faith headquartered at Dayalbagh, Agra-282005. The Founder's Day Celebration exemplifies the deep-rooted commitment of DEI to honour its illustrious legacy and uphold the principles of Holistic Education under the benevolent guidance of Spiritual Masters. It is not merely a celebration; it is a testament to the Institution's commitment to excellence, innovation, and the all-round development of its students. The event provides a platform for students to showcase their talents, learn from one another, and contribute to the overall growth and progress of the Institute.

#### **Independence** Day

The 77<sup>th</sup> Independence Day was celebrated with profuse enthusiasm at Dayalbagh Educational Institute (Deemed to be University), Dayalbagh, Agra. Prof. Prem Kumar Kalra, Director, DEI, was the Chief Guest on the occasion. He hoisted the National Flag and received

the Guard of Honour. Thereafter, on the scintillating tunes of the DEI Band, a magnificent March Past began in which contingents from various schools, colleges, and faculties of DEI participated with tremendous vigour and solemnity. The melodious rendering of a patriotic song by a group of DEI students and the National Flag flying in the sky through a Drone intensified patriotic zeal in the gathering.

In his address, Prof. Kalra spoke about the true meaning of Independence Day and the achievements of Dayalbagh Educational Institute. He emphasized the need to identify new dimensions and definitions of freedom in accordance with the changing circumstances and concurrent problems and contexts. He also inspired the students to play an active role in solving the problems of society in general and the world at large. In the March Past Competition, DEI Prem Vidvalava Girls' Inter College and DEI Technical College were awarded Winning Shields. Apart from this, Special prizes were given to the members of the Contingents of DEI Nursery and Play Centre, DEI PV Primary School, and Saran Ashram School. Under the aegis of the 'Meri Mati Mera Desh' Nation-wide Campaign, a Clay Sculpture-Making Competition was organized by the National Service Scheme Unit of DEI and the winning participants of this competition were also rewarded on this occasion. Diksha Singh and Reena Verma (Arts Faculty) and Nihar Satsangi (Science Faculty) stood First, Second, and Third respectively in this competition. Tree plantation was also organized to mark the befitting end of the Independence Day Events, in which, Engineer Jamuna Prasad, Member, Academic Council of DEI, and Dr Ashok Sahai, Medical Officer, Saran Ashram Hospital, Dayalbagh, planted saplings.

On this occasion, Prof. Anand Mohan, the Registrar of the Institute, Treasurer of the Institute, Smt. Sneh Bijlani, Deans of all the Faculties, Principals of DEI Schools, Heads of departments besides other staff members of the Institute were present along with a large gathering of DEI students.



The programme ended with the Institute's Song followed by tree plantations done by the dignitaries invited on this occasion. An exhibition of various innovative products and schemes implemented at DEI was also held and greatly appreciated by all present. Mrs. and Mr. Chief Guest took special interest in students' presentations and wished them success in the future. On this occasion, Registrar, Treasurer, Deans, Principals, members of the Governing Body of the Institute were also present.



#### **Republic Day**

In a splendid display of patriotism and unity, the Institute marked its 75<sup>th</sup> Republic Day with fervour and dignity. Dr. Sunil Kumar Gulati, I.A.S.(Retd.), former Special Chief Secretary, Govt of Haryana, graced the ceremony as the Chief Guest and extolled the Institute's commitment to embedding moral values within its education system in his address.



The highlight was a spirited March Past Competition, showcasing the discipline and enthusiasm of the students and ably judged by Honorary Major Pritam Singh, and Subedar Major A. Prakash Rao. The girls from Prem Vidyalaya Girls Intermediate College and the boys from the Technical College and DEI Band emerged winners and were lauded and presented the Winning Shields. Special awards were given to the teams of DEI Nursery cum Play Centre, DEI Dairy Bagh Primary School, Radhasoami Saran Ashram Nagar School, and DEI PV Primary School for their commendable synchronized performance. The day was further marked by a melodious group song, embodying the spirit of pride for the nation. Notable attendees including the Institute's Officiating Director, Prof. C Patvardhan, Registrar, Prof. Anand Mohan, Treasurer, Smt. Sneh Bijlani, esteemed Faculty, and a large gathering of students and staff bore witness to this celebration, reinforcing the ethos of unity and the importance of value-based education in shaping future citizens. At the end of the function, sweets were distributed to all as a mark of celebration.

# Institute's Achievements

**Recommendations to the G20** - A T20 Policy Brief co-authored by DEI Faculty members on "Catalysing SDGs Achievement through Community Engagement: A Case Study of the Dayalbagh Model", was submitted by Task Force 1 on Macroeconomics, Trade, and Livelihoods: Policy Coherence and International Coordination, as Recommendations to the G20 in October 2023.

The **Dayalbagh (K4C) Hub** was established in 2023 as a part of the Knowledge for Change (K4C) consortium, a globally recognized network committed to educating the next generation of community-based researchers and advancing knowledge democracy and the co-creation of place-based actionable knowledge. To significantly contribute to the UN Sustainable Development Goals and to accomplish the Institute's objective of *Reaching The last, the least, the lowest, and the lost,* it aspires to promote social responsibility and increase community participation. The Hub acknowledges the value of community-based participatory research (CBPR), which aligns with the Institute's various interdisciplinary, multidisciplinary, and transdisciplinary research areas.

A **Mathematics Laboratory** was set-up in DEI REI Boys Intermediate College and DEI PV Girls Intermediate College to provide interactive teaching-learning environment to learn mathematics. The hands-on learning experiences in the mathematics laboratory develop critical thinking and problem-solving abilities in learners using an algebra annotator, designed for learning by visualizing and doing the activities involving variables; Geometry Expositor, the solution bank of all geometrical concepts, visualizing statements of theorem and its proof and other equipment like Fraction Tester, Equation Solver, Coordinate System Demonstrator, Circle Descriptor.

A book entitled "**Consciousness Studies in Humanities and Sciences**," Eastern and Western Perspectives (Editors: Prof. Prem Saran Satsangi, Chairman of the Advisory Committee on Education (ACE), DEI, Prof. Anna Margeretha Horatschek, Kiel University, Germany and Prof. Anand Srivastav, Kiel University, Germany) was published by **Springer Nature**.

Prof. Sukhdev Roy, Head, Department of Physics and Computer Science, in the field of Optoelectronics and Photonics, Prof. D.K. Chaturvedi, Head, Department of Footwear Technology, in the field of Artificial Intelligence and Image Processing and Prof. V.B. Gupta, Vice Chairman, ACE in the field of Polymers and Textile Engineering featured in **Stanford University's study of Top 2% World Ranking of Scientists**, published by John P.A. Loannidis et al. as, "October 2023 data-update for Updated science-wide author databases of standardized citation indicators", Elsevier Data Repository, Version 6, in the Journal PLOS Biology (Impact Factor 9.8).

The **AIU-Academic and Administrative Development Centre** was established in August 2023. It aims at organizing short-term advanced training and capacitybuilding programs for the faculty members and administrative functionaries of universities and other Higher Educational Institutions. The centre has been established to provide training on the use of technology in teaching-learning, assessment and evaluation, governance, and developing learning material. The AIU-DEI-AADC organized its first Short-Term Capacity Building Programme on *Statistical Analysis: Theory and Practice (Applications of SPSS and R-Software in Research)* from November 28 to December 5, 2023.

### Dayalbagh Educational Institute Signs Partnership Agreements with Purdue University and University of Connecticut (USA)

Dayalbagh Educational Institute (DEI), Agra, signed a Letter of Intent with Purdue University and an Agreement of Cooperation with the University of Connecticut on January 23, 2024, fostering international academic collaboration. A delegation including Dr. Indrajeet Chaubev (University of Connecticut), Dr Bernard Engel (Purdue University), Mrs. Engel, and Dr Dharmendra Saraswat (Purdue



University) visited DEI, touring its agroecology fields, Yamuna River Restoration Site, and innovative laboratories. Impressed by DEI's technological and entrepreneurial advancements, the delegation discussed mutual interests for longterm collaboration. The agreements, signed in the presence of Most Revered Prof. Prem Saran Satsangi Sahab, aim to promote joint academic and scientific initiatives.

#### DEI's Journey of Triumph at Inter University Central Zone Youth Festival

The 37<sup>th</sup> Inter University Central Zone Youth Festival 2024, 'Subharti Utsav', held from 30 January to 3 February 2024 at Swami Vivekanand Subharti University, Meerut, witnessed a magnificent congregation of talent, culture, and camaraderie from 21



universities across the region. The DEI contingent of 45 members,

consisting of staff



members, students, and accompanists was proud to participate in this vibrant showcase of cultural diversity and artistic excellence. The Institute competed in a wide array of categories including Dance, Music, Literary

Events, and Fine Arts. Each performance was a testament to the dedication and

talent of the students. The hard work and talent of the team were recognized with numerous accolades, including:

- Group Song Western First position
- Mehndi Second position
- Spot Photography Third position
- Group song Indian- Fifth position
- Western instrumental solo- Fifth position
- Western Solo Fifth position
- Elocution- Fourth position
- Debate- Fifth position

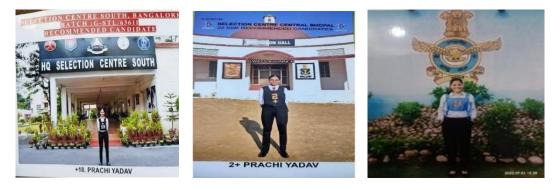


The top three winners from our institution were victorious at the prestigious National Youth Festival, held at Punjab Agricultural University, Ludhiana, March 2024. Demonstrating exceptional in talent and dedication, Muskan won the 2<sup>nd</sup> Prize in the Mehndi Competition, and Astuti Gogia secured the 2<sup>nd</sup> Prize in the On-the-Spot Photography category.

### **DEI SSB Training Programme: Success Stories**

Two trainees of the DEI SSB Training Programme, Prachi Yadav and Sanjana Chahar of Electrical Engineering, Faculty of Engineering, Dayalbagh Educational Institute, 2019-23 Batch, have cleared the Defense Entrance Exams in AFCAT and CDS 2022-23.

Prachi was also selected through NAVY TECH and recently, SSCW (Short Service Commission for Women). She was recommended in April 2023 in Bhopal after passing the CDS exam. Then again, in June, she appeared through the direct technical entry for engineering students, from Bangalore, and got recommended once more. On the other hand, Sanjana has been recommended by the Air Force Selection Board (AFSB), Dehradun in June 2023, having passed the Air Force Common Admission Test (AFCAT) in March 2023. Both young ladies with their great determination along with the guidance from DEI SSB Training Programme, have successfully qualified for the Services Selection Board (SSB) in their 3<sup>rd</sup> and 4<sup>th</sup> attempts respectively.



# Staff and Student Strength and Composition

Number of Teaching Faculty						
Assistant Professors	153					
Associate Professors	20					
Professors	67					
Guest Faculty	31					
Lecturers	20					
Adjunct Professors	5					
Professors Emeritus	27					
Senior Lecturers	1					
Total	324					
Non-Teaching Staff						
Total Non Teaching Staff*	298					

### A. NUMBER OF STUDENTS NEWLY ENROLLED IN THE DEI CAMPUS (SESSION 2023-2024)

### CATEGORY WISE STUDENTS' ENROLMENT IN UNIVERSITY DEPARTMENTS

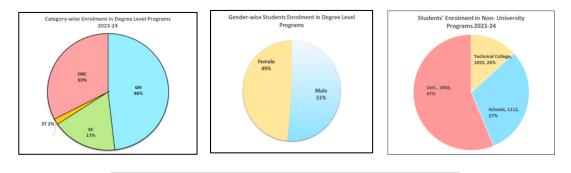
Category		M/ F	UG	PG	MTech	PhD	PGDip	Dip.	Cert.	Sch.	Total
		М	1036	247	30	48	31	710	537	491	3130
Total Students	1	F	1306	405	12	84	34	140	395	563	2939
		Т	2342	652	42	132	65	850	932	1054	6069
		М	453	106	19	19	17	314	166	174	1268
General Students	2	F	598	199	9	48	14	70	156	182	1276
		Т	1051	305	28	67	31	384	322	356	2544
		М	39	9	1	2	2	24	14	15	106
EWFS Students	3	F	52	16	1	5	1	6	13	16	110
		Т	91	25	2	7	3	30	27	31	216
		М	173	52	6	11	3	147	61	80	533
SC Students	4	F	270	71	1	12	1	27	59	120	561
		Т	443	123	7	23	4	174	120	200	1094
		М	6	3	0	0	0	3	18	41	71
ST Students	5	F	8	2	0	1		0	35	44	90
		Т	14	5	0	1	0	3	53	85	161
		М	365	77	4	16	9	222	278	181	1152
BC Students	6	F	378	117	1	18	18	37	132	201	902
		Т	743	194	5	34	27	259	410	382	2054

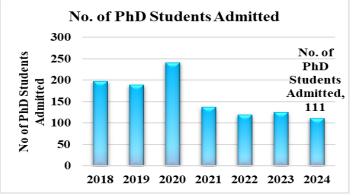
r	1										
		М	6	4	0	0	0	15	6	10	41
PH Students	7	F	7	1	0	0	0	1	0	3	12
		Т	13	5	0	0	0	16	6	13	53
Minority		М	18	6	0	2	0	6	10	3	45
(Muslim)	8	F	13	5	0	2	0	3	6	4	33
Students		Т	31	11	0	4	0	9	16	7	78
Minority		М	31	9	0	0	1	47	9	29	126
(Others)	9	F	64	17	1	2	1	9	14	40	148
Students		Т	95	26	1	2	2	56	23	69	274
TOTAL (2+3+4+5+6	6)	Т	2342	652	42	132	65	850	932	1054	6069

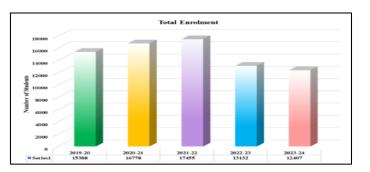
# DEI ALL SEMESTERS/ MODULES ENROLMENTS 2023-24

Category		M/ F	UG	PG	Mtech	PhD	PGD	Dip.	Cert	School	Total
		М	3121	514	80	175	31	1636	512	487	6556
Total Students	1	F	3703	912	32	580	33	432	353	561	6606
		Т	6824	1426	112	755	64	2068	865	1048	13162
		М	1287	216	43	79	17	715	153	173	2683
General Students	2	F	1635	418	15	292	12	194	141	180	2887
		Т	2922	634	58	371	29	909	294	353	5570
		М	232	41	6	15	2	66	14	15	391
EWFS Students	3	F	280	70	3	47	2	22	13	17	454
		Т	512	111	9	62	4	88	27	32	845
		М	482	89	15	29	3	340	65	81	1104
SC Students	4	F	674	158	6	91	1	73	59	119	1181
		Т	1156	247	21	120	4	413	124	200	2285
		М	31	7	0	0	0	11	9	41	99
ST Students	5	F	25	4	1	3	0	4	25	44	106
		Т	56	11	1	3	0	15	34	85	205
		М	1089	161	16	52	9	504	271	177	2279
BC Students	6	F	1089	262	7	147	18	139	115	201	1978
		Т	2178	423	23	199	27	643	386	378	4257

		М	19	5	0	0	0	27	5	10	66
РН	7	F	22	3	0	1	0	27	0	3	31
Students	1	г	22	3	0	1	0	2	0	3	51
		Т	41	8	0	1	0	29	5	13	97
		М	45	10	2	5	0	11	10	3	86
Minority (Muslim) Students	8	F	45	13	0	8	0	4	6	4	80
students		Т	90	23	2	13	0	15	16	7	166
<b>.</b>		М	110	18	1	0	1	81	9	29	249
Minority (Others) Students	9	F	222	56	1	8	1	34	13	40	375
students		Т	332	74	2	8	2	115	22	69	624
TOTAL (2+3+4+5+6)		Т	6824	1426	112	755	64	2068	865	1048	13162







# LIST OF STUDENTS (2023-24) RECEIVING MEDALS AT THE 42<sup>nd</sup> CONVOCATION DIRECTOR'S MEDAL

For s	ecuring highest grade point in -			
1.	High School Examination, 2023	2200148	Mukti Sahni	9.945
2.	Intermediate Examination, 2023	2200062	Arya Swaroop	9.854
For s	ecuring highest grade point in -			
3.	Technical Diploma Level Examinations, 2023	2003961	Minaz Ali	9.392
4.	Diploma in Elementary Education Examination, 2023	2102146	BHANVI GUPTA	8.826
5.	P.G.D.J.M.C. Examination, 2023	2206074	NETRA GUPTA	10.00
6.	P.G.D.T.D.P. Examination, 2023	2206094	Prachi Singh	8.925
7.	P.G.D.Th. Examination, 2023	2206915	Saran Virdi	9.573
8.	P.G.D.B.L.O.R. Examination, 2023	2204661	Ankit Kumar	8.855
9.	P.G.D.C.S.A. Examination, 2023	2204682	Ashish	7.891
10.	P.G.D.B.E. Examination, 2023	2201999	Shivani Upmanyu	9.485
11.	P.G.D.S.H.E. Examination, 2023	2202256	Preeti Yadav	9.233
12.	P.G.D.U.P.M. Examination, 2023	2202276	Ruchi Rathore	9.693
For se	ecuring highest grade point in CULTURAL EDUCATION &	& COMPARAT	IVE STUDY OF RELIGI	ON in -
13.	Technical Diploma Level Examination, 2023	2001360	Kunal Jaiswar	8.791
14.	Diploma in Elementary Education Examination, 2023	2102168	Ram Chaudhary	8.708
15.	B.A. Examination, 2023	2103874	Greshma Dhakad	9.559
16.	B.Sc. (Home Science) Examination, 2023	2102548	Vanshika Sharma	7.928
17.	B.F.A. Examination, 2023	1900662	Prachi	9.009
18.	B.Com./B.Com.(Online) Examination, 2023	2150254	Disha Sharma	9.000
19.	B.Com. (Transdisciplinary) Examination, 2023	2101086	Sarthak Garg	8.086
20.	B.Com. (Corporate Accounting & Law) Examination, 2023	2101046	Khushi Mittal	8.893
21.	B.Arch. Examination, 2023	164409	Shalini Verma	6.396
22.	B.Tech. Examination, 2023	1901851	Drishti Goel	9.573
23.	B.Tech. (Part Time) in Electrical Engineering Examination, 2023	1806414	Anshul Bhola	7.211
24.	B.Sc. Examination, 2023	2102846	Shivani Pachauri	9.672
25.	B.Sc. Honours Agriculture Examination, 2023	1903823	Chandani Kumari	9.022
26.	B.Sc. Honours in Applied Botany Science Examination, 2023	2002982	Sakshi Sharma	9.574
27.	Int. Dual DipDegree Voc. Dip. in I.T. & B.Sc. Comp. Sc. Exam., 2023	2006210	Sanskriti Gupta	7.845
28.	B.B.A./B.B.A.(Online) Examination, 2023	2101568	Sneha Seth	9.746
29.	B.B.A. (Logistics) Examination, 2023	2101326	Khushi Chhabra	9.517

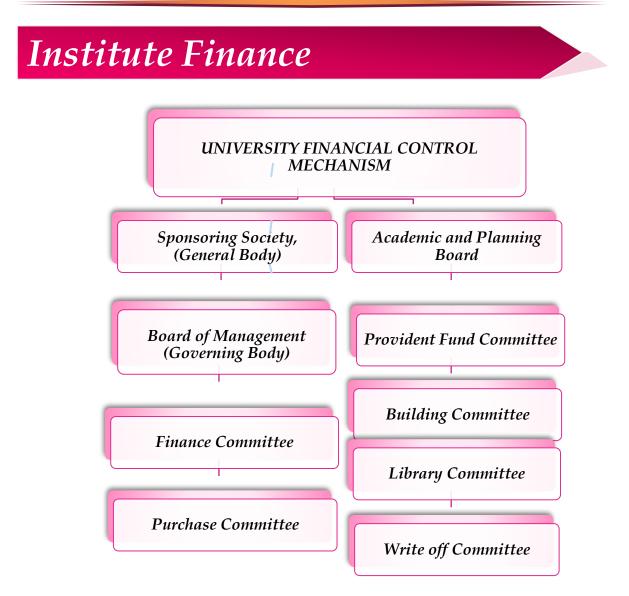
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30.	B.B.A. (Retail) Examination, 2023	2101448	Vidhi Satsangi	8.666
31.	B.A. (Social Science)/B.A.(Social Science)Online Examination, 2023	2101653	Shabd Kavia	9.419
32.	B.A. Social Sciences (Transdisciplinary) Examination, 2023	2101112	Suhani Vats	7.654
33.	B.Voc. (Apparel Design) Examination, 2023	2004939	Nisha Tyagi	8.766
34.	B.Voc. (Food Processing) Examination, 2023	2004965	Mukul Tripathi	8.816
35.	B.Voc. (Textile) Examination, 2023	2005004	Kashish Rohatgi	9.404
36.	B.Voc. (Tourism & Hospitality Management) Examination, 2023	2005061	Taneesha Agarwal	9.076
37.	B.Voc. (Accounting & Taxation) Examination, 2023	2006117	Aryan Gupta	9.121
38.	B.Voc. (Automobile) Examination, 2023	2002581	Abhinav Mohan Bansal	9.281
39.	B.Voc. (Artificial Intelligence & Robotics) Examination, 2023	2002846	Chanchal	9.539
40.	B.Voc. (Digital Manufacturing) Examination, 2023	2003232	Durgesh Kumar	8.798
41.	B.Voc. (Renewable Energy) Examination, 2023	2003283	Divyanshu Tyagi	9.186
42.	B.Voc. (Water, Sanitation & Waste Management) Examination, 2023	2003404	Divya Arora	8.733
43.	B.Voc. (Mgmt. & Manufacture of Ayurvedic Drugs) Exam., 2023	2003691	Km Aditi Rathore	9.766
44.	B.Voc. (Mgmt. & Manufacture of Homoeopathic Drugs) Exam., 2023	2003725	Sofiya Khan	9.562
45.	B.Voc. (Agriculture Technology) Examination, 2023	2003116	Devansh Verma	8.779
46.	B.Voc. (Dairy Technology) Examination, 2023	2003181	Km Rookmanee	8.185
47.	B.Voc. (Greenhouse Technology) Examination, 2023	2003205	Nitin Verma	7.759
48.	B.Voc. (Internet of Things) Examination, 2023	2003390	Vivek Kumar	8.019
49.	B.Voc. (Telecommunication) Examination, 2023	2003424	Anjali Verma	9.519
50.	B.Voc. (Telematics) Examination, 2023	2003474	Mansi Singh Tomar	8.055
51.	B.Voc. (Banking & Finance) Examination, 2023	2002921	Samyak Jain	8.394
For se	curing highest grade point in -			
52.	B.A. Examination, 2023	2103874	Greshma Dhakad	9.559
53.	B.Sc. (Home Science) Examination, 2023	2102548	Vanshika Sharma	7.928
54.	B.Com./B.Com.(Online) Examination, 2023	2101232	Sarthak Jain	9.351
55.	B.Com. (Transdisciplinary) Examination, 2023	2101075	Isha Singh	8.263
56.	B.Com. (Corporate Accounting & Law) Examination, 2023	2101046	Khushi Mittal	8.893
57.	B.Ed. Examination, 2023	2103796	Supriya Verma	9.603
58.	B.Arch. Examination, 2023	1800703	Rakhi	9.116
59.	B.Tech. in Civil Engineering Examination, 2023	1901819	Surbhi Agarwal	8.786

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60.	B.Tech. in Electrical Engineering spz. Computer Science Examination, 2023	1901851	Drishti Goel	9.573
61.	B.Tech. in Footwear Technology Examination, 2023	1901941	Pranshul Gupta	9.010
62.	B.Tech. in Mechanical Engineering Examination, 2023	1901983	Hritav Gupta	9.378
63.	B.Tech. (Part Time) in Electrical Engineering Examination, 2023	1806413	Anand Kumar Sharma	7.962
64.	B.Sc. Examination, 2023	2102846	Shivani Pachauri	9.672
65.	Int. Dual DipDegree Voc. Dip. In I.T. & B.Sc. Comp. Sci. Exam., 2023	2006208	Monika Lawaniya	8.861
66.	B.B.A./B.B.A.(Online) Examination, 2023	2101568	Sneha Seth	9.746
67.	B.B.A. (Logistics) Examination, 2023	2101326	Khushi Chhabra	9.517
68.	B.B.A. (Retail) Examination, 2023	2101448	Vidhi Satsangi	8.666
69.	B.A. (Social Science)/B.A.(Social Science)Online Examination, 2023	2101610	Gurpreet Kaur	9.612
70.	B.A. Social Science (Transdisciplinary) Examination, 2023	2101112	Suhani Vats	7.654
71.	B.A. Honours (English) Examination, 2023	2004829	Sanya Sinha	9.550
72.	B.A. Honours (Hindi) Examination, 2023	2004734	Deeksha Pal	9.475
73.	B.A. Honours (Music) Examination, 2023	2004787	Nargish	9.659
74.	B.A. Honours (Sanskrit) Examination, 2023	2004806	Prerna Punj	9.975
75.	B.F.A. Examination, 2023	1900662	Prachi	9.009
76.	B.Sc. Honours (Home Science) Examination, 2023	2004905	Harshada	9.231
77.	B.Com. Honours Examination, 2023	2050137	Jigyasha Jain	9.688
78.	B.Com. Honours (Corporate Accounting & Law) Examination, 2023	2006032	Sanskriti Singh	9.116
79.	B.Com. Honours (Transdisciplinary) spz. Accounting Examination, 2023	2006096	Vedant Sharma	8.438
80.	B.Sc. Honours (Agriculture) Examination, 2023	1903822	Ayushi Sharma	9.226
81.	B.Sc. Honours in Applied Botany Science Examination, 2023	2002982	Sakshi Sharma	9.574
82.	B.Sc. Honours (Botany) Examination, 2023	2002818	Yogesh Kushwah	9.792
83.	B.Sc. Honours (Chemistry) Examination, 2023	2002667	Arpan Agarwal	9.770
84.	B.Sc. Honours (Cognitive Science) Examination, 2023	2002714	Kashish Baghel	8.650
85.	B.Sc. Honours (Computer science) Examination. 2023	2002681	Binti Srivastava	9.135
86.	B.Sc. Honours (Mathematics) Examination, 2023	2002777	Shikha Kushwah	9.467
87.	B.Sc. Honours (Physics) Examination, 2023	2002736	Nimra Gaddi	8.207
88.	B.Sc. Honours (Zoology) Examination, 2023	2002771	Sanjana Gupta	9.719
89.	B.B.A. Honours Examination, 2023	2004382	Aditi Dixit	9.789
90.	B.B.A. Honours (Logistics) Examination, 2023	2003678	Yamini Sabharwal	9.853

91.	B.B.A. Honours (Retail) Examination, 2023	2005718	Tanupriya Agarwal	9.760
92.	B.A. Honours (Social Science) (Cognitive Science) Examination, 2023	2004640	Vaishnavee Upadhyay	7.750
93.	B.A. Honours (Social Science) (Economics) Examination, 2023	2004565	Anushka Yadav	9.150
94.	B.A. Honours (Social Science) (Political Science) Examination, 2023	2004613	Priyanka Sharma	9.850
95.	B.A. Honours (Social Science) (Psychology) Examination, 2023	2004598	Mansi Dixit	9.800
96.	B.A. Honours (Social Science) (Sociology) Examination, 2023	2004627	Shiva Dixit	9.775
97.	B.A. Social Science Honours (Transdisciplinary) spz. Human Service Mgmt. Examination, 2023	2005668	Tanu Rajput	8.630
98.	B.Voc. (Accounting and Taxation) Examination, 2023	2006138	Pooja Agarwal	9.605
99.	B.Voc. (Agriculture Technology) Examination, 2023	2003116	Devansh Verma	8.779
100.	B.Voc. (Apparel Design) Examination, 2023	2004929	Deepa Srivastava	8.885
101.	B.Voc. (Artificial Intelligence & Robotics) Examination, 2023	2002846	Chanchal	9.539
102.	B.Voc. (Automobile) Examination, 2023	2002581	Abhinav Mohan Bansal	9.281
103.	B.Voc. (Banking & Finance) Examination, 2023	2002899	Deeksha Vikram Singh	9.605
104.	B.Voc. (Dairy Technology) Examination, 2023	2003185	Shipra Singh	9.036
105.	B.Voc. (Digital Manufacturing) Examination, 2023	2003222	Akash Kumar	9.519
106.	B.Voc. (Food Processing) Examination, 2023	2004965	Mukul Tripathi	8.816
107.	B.Voc. (Greenhouse Technology) Examination, 2023	2003210	Sunil Kumar	8.704
108.	B.Voc. (Internet of Things) Examination, 2023	2003358	Khushi Agarwal	9.031
109.	B.Voc. (Mgmt. & Manufacture of Ayurvedic Drugs) Exam., 2023	2003691	Km Aditi Rathore	9.766
110.	B.Voc. (Mgmt. & Manufacture of Homoeopathic Drugs) Exam., 2023	2003725	Sofiya Khan	9.562
111.	B.Voc. (Renewable Energy) Examination, 2023	2003283	Divyanshu Tyagi	9.186
112.	B.Voc. (Telecommunication) Examination, 2023	2003424	Anjali Verma	9.519
113.	B.Voc. (Telematics) Examination, 2023	2003474	Mansi Singh Tomar	8.055
114.	B.Voc. (Textile) Examination, 2023	2005004	Kashish Rohatgi	9.404
115.	B.Voc. (Tourism & Hospitality Management) Examination, 2023	2005061	Taneesha Agarwal	9.076
116.	B.Voc. (Water, Sanitation & Waste Management) Examination, 2023	2003404	Divya Arora	8.733
117.	M.A. (Drawing & Painting) Examination, 2023	2102252	Deepti Kumari	9.270

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118.	M.A. (English) Examination, 2023	2102272	Astha Sharma	9.527
119.	M.A. (Hindi) Examination, 2023	2102293	Arti	9.250
120.	M.A. (Music) Examination, 2023	2102321	Aprajita Jha	9.780
121.	M.A. (Sanskrit & Culture) Examination, 2023	2102345	Preeti Kumari	9.829
122.	M.A.(Theology)/M.A.(Theology)Online Examination, 2023	2105386	G. Maharaj Kumari	9.790
123.	M.Sc. (Home Science) Examination, 2023	2102723	Kanchan	8.195
124.	M.Com./M.Com(Online) Examination, 2023	2101285	Mahima Satsangi	9.656
125.	M.Com. (Corporate Accounting & Law) Examination, 2023	2101023	Shubham Samarthya	8.087
126.	M.Ed. Examination, 2023	2102128	Simran Arora	9.118
127.	M.Tech. (Engineering Systems) spz. Computer Science Exam., 2023	2105598	Vanshika Sharma	9.730
128.	M.Sc. (Botany) Examination, 2023	2103326	Riya Jain	9.790
129.	M.Sc. (Chemistry) Examination, 2023	2103346	Himanshi Sinha	9.089
130.	M.Sc. (Computer Science) Examination, 2023	2103451	Aman Pratap Singh	9.961
131.	M.Sc. (Computer Science) Examination, 2023	2103457	Tanu Kaur	9.961
132.	M.Sc. (Mathematics) Examination, 2023	2103393	Kanha Bindal	9.931
133.	M.Sc. (Physics) Examination, 2023	2103419	Monika Mangal	9.882
134.	M.Sc. (Zoology) Examination, 2023	2103436	Mansi Mahajan	9.520
135.	M.B.A. (Business Management) Examination, 2023	2005583	Nandini Jain	9.457
136.	M.B.A. (General Management) Examination, 2023	2101971	Nikita Satsangi	9.440
137.	M.B.A. (Innovation, Entrepreneurship & Venture Dev.) Exam., 2023	2100871	Zeba	8.776
138.	M.B.A. in Agricultural Management Examination, 2023	2101385	Masooma Rizvi	9.319
139.	M.B.A. (Waste Mgmt. & Social Entrepreneurship) Examination, 2023	2104053	Bharti Kumari	9.104
140.	M.A. (Social Science) (Applied Economics) Examination, 2023	2102049	Priyanshi Agarwal	9.662
141.	M.A. (Social Science) (Political Science) Examination, 2023	2101733	Dipti Sarswat	9.280
142.	M.A. (Social Science) (Psychology) Examination, 2023	2101844	Himanshi Solanki	9.614
143.	M.A. (Social Science) (Sociology) Examination, 2023	2101882	Yasha Gaur	9.616
144.	M.A. (Social Science) spz. Business Management Examination, 2023	2100908	Prachi Varshney	8.940
145.	M.Voc. (Apparel Design) Examination, 2023	2102416	Yatika Agarwal	9.645
146.	M.Voc. (Dairy Technology) Examination, 2023	2103478	Soniya Yadav	9.108

147.	M.Voc. (Food Processing) Examination, 2023	2102376	Sumanpreet Kaur	8.922			
148.	M.Voc. (Renewable Energy) Examination, 2023	2105351	Prashant Pachauri	9.175			
149.	M.Voc. (Textile) Examination, 2023	2102404	Tannu Agarwal	9.303			
PRESIDENT'S MEDAL For securing highest grade point in -							
150.	All Undergraduate Examinations, 2023	2003691	Km Aditi Rathore	9.766			
151. 152.	All Postgraduate Examinations, 2023	2103451	Aman Pratap Singh Tanu Kaur	9.961 9.961			
152.	D.E.I. FOUNDER'S MEDAL						
153.	Best All-Rounder among the First Degree Students of the Institute Graduating in the Year 2023	1901851	Drishti Goel	9.573			



#### Main sources of income

- 1. UGC grant for Salary and Pension
- 2. UP Government for Salary and NSS
- 3. Sponsored Projects from DST, ICSSR, ISRO, AICTE, Ministry of Education and Ministry of Steel etc.
- 4. Other sources of Income
  - a. Fees
  - b. Income from Interest
  - c. Contribution by Trust and other Charitable Societies
  - d. Contribution by Alumni Associations

#### **Sponsored Research Projects**

During the session 2023-24, the Institute received grants for various research projects worth Rs. 309.10 lakh sponsored by DST, ICSSR, ISRO, SERB, AICTE, NABARD,

Ministry of Steel, Ministry of Education and Ministry of Textile. A summary of the project funds is given below -

Sl. No.	Sanctioning Agency	Amount Sanctioned Rupees in lakhs	
1	DST	113.65	
2	SERB	16.02	
3	ICSSR	8.00	
4	ISRO	55.95	
5	AICTE	2.52	
6	NABARD	6.62	
7	Ministry of Textile	6.46	
8	Ministry of Steel	13.42	
9	Ministry of Education	86.46	
	TOTAL	309.10	

#### **Fellowships and Scholarships**

During the session 2023-24, 150 students received fellowship in the form of JRF, SRF and 1530 students received scholarship. A summary of the fellowships and scholarships is given below -

Sl. No.	Sanctioning Agency	No. of Students	Payment Mode
A – FELLOWSHIP			
1	UGC NET JRF	89	Web portal
2	UGC Maulana Azad fellowship	-	Web portal
3	UGC National fellowship for SC & ST	12	Web portal
4	UGC National Fellowship for OBC	11	Web portal
5	DST Inspire	7	PFMS
6	CSIR	3	Through Institute
7	ICSSR	27	PFMS
8	DBT	1	PFMS
	Total Fellowship	150	
B – SCHOLARSHIP			
1	AICTE (J&K)	15	Through Institute
2	UP Govt.	1515	DBT
	Total Scholarship	1530	

# Faculty of Arts

Faculty of Arts was established in 1981. It is an integration of six departments namely Drawing & Painting, English, Hindi, Home Science, Music and Sanskrit. In order to cater to the varied interests of the students, the faculty offers UG/PG/MPhil/PhD and various Certificate as well as diploma programmes. The subjects taught in the faculty help in developing aesthetic sense and awaken finer sensibilities in students. The language courses enhance the eloquence of the students and, at the same time, develop a sense of literary appreciation. The study of Home Science helps the students to acquire various skills, thereby, helping them to get placements in industries and hospitals. The courses in Drawing & Painting and Music inculcate a sense of beauty and harmonious expression.

# Programmes Offered by The Faculty

- Undergraduate: B.A. Honours (Drawing & Painting, English Studies, Hindi, Home Science, Music, Sanskrit)
  B.Sc. Honours (Home Science), B.F.A. (Applied Art, Painting, Sculpture), B.Voc. (Apparel Design) B.Voc (Pottery and Ceramics), B.Voc. (Food Processing and Preservation), B.Voc (Textiles), B. Voc. (Tourism & Hospitality Management)
- Post Graduate: M.A., M.Sc. (Home Science), M.Voc. (AD), M.Voc. (Food Processing and Preservation)
- PhD: in seven subjects including Theology
- PG Diploma Courses: PGDT, PGDJMC, PGDDFM and PGDTDP
- Integrated course in Theology: PGDTDC M.A. M.Phil.
- Modular Courses: Vyavasayik Hindi, Creative Writing, Translation, Traditional Indian Miniature Painting, Folk Songs of India, Repair and Maintenance of Musical Instruments, Gayaki of Agra Gharana, Photography & Photo Journalism, Block Printing.

# Department of Drawing and Painting

The department began its journey as an undergraduate department in 1960 as a part of Women's Training College and was included in DEI in 1981. The department has one Professor, four Assistant Professors, one Instructor and three Guest Faculty. One of the fundamental thrust areas of the fine art department is drawing and painting, through the exploration of different techniques, mediums, and styles, students gain proficiency in expressing their ideas visually. Sculpture, installation, printmaking, new media, history of art, art and aesthetics are the other thrust areas of the department. It offers B.A. Four year course with Drawing & Painting as one major subject in combination with one more subject, B.A. (Hons.) Drawing & Painting, B.F.A. with 3 specializations (Applied Art, Painting, Sculpture), B.Voc. in Textile, B.Voc (Pottery and Ceramics), M.A. Drawing & Painting, M.Voc. in Textiles, Postgraduate Diploma in Textile Design & Printing (PGDTDP), and Ph.D., 4 Work Experience courses at UG level, 1 Certificate

Course for the graduate students and 1 Advanced Certificate Course for the students of B.A. (Hons.), 3 Modular Courses : Miniature Painting; Photography & Photo Journalism; Block Printing. Department of Drawing and Painting has been involved in pioneering efforts towards empowerment and development of students of fine art and has been imparting creativity through the diverse range of creative activities and modes of expression. The teaching program in the department is focused on quality results in both creative painting and research.

#### **Facilities in the Department**

The department is equipped with a Graphics Lab, Miniature Lab, Textile designing and Textile Printing Laboratories, Digital Laboratory, Sculpture Laboratory that are equipped with high end tools like Pottery Wheels, Ball mill, Pot mill, Pug mill, Electric Furnace, Gas Furnace and Slab Roller, for fine art specialization like i-Mac Systems, Digital Camera, Pen Tablet i-ball, Plasma TVs, Lithography Machine and Video Equipment.

## Faculty/Staff Achievements/ Awards

- Kanchan Kumari participated in the Exhibition of Paintings by Women Artists, "Queen of Hearts," organized by the KALAAKAR Foundation at Artizen Art Gallery, Peary Lal Bhawan, New Delhi, from 8 10 March, 2024.
- Kanchan Kumari participated in National Online Art Exhibition and was awarded the Manikarnika Bharat Kala Gaurav Samman 2023, where she won the Silver Award. This exhibition was organized by Manikarnika Art Gallery from October 28 November 10, 2023.

#### **Student Achievements**

- **1.** Pragya Sharma was awarded the 2<sup>nd</sup> Prize, while Nidhi Beragi received the Consolation Prize in the Drawing and Painting Competition for postgraduate and undergraduate students organized by the Shri Ram Child Welfare Foundation, Khandari, Agra on 28 September 2023.
- 2. Eight students from the Bachelor of Fine Arts (BFA) program participated in the 37<sup>th</sup> Inter University Central Zonal Youth Festival, held from 30<sup>th</sup> January to 3<sup>rd</sup> February 2024, organized by Swami Vivekanand Subharti University, Meerut. Among the participants, Muskan won the 2<sup>nd</sup> Prize in the Mehndi Competition, while Astuti Gogia secured the 3<sup>rd</sup> Prize in the On-the-Spot Photography competition, showcasing the talent and creativity of the department's students.
- 3. Muskan won the 2<sup>nd</sup> Prize in Mehndi Competition and Astuti Gogia secured the 2<sup>nd</sup> Prize in the On-the-Spot Photography in t**he** National Youth Festival: Subharti Utsav 2024, organized by Punjab Krishi University, Ludhiana.
- 4. Haney Kumari Gautam won the Consolation Prize in the Wall Painting Competition organized as part of the Indian Swachhata League 2.0 initiative, aimed at promoting the Swachhata Abhiyan. The competition was held by Aligarh Nagar Nigam from 18 19 September 2023.

# Workshops/Conferences/Seminars/Webinars Organized

- The department organized the event 'Meri Maati Mera Desh' from 9-15 August 2023, which featured pottery and sculpture-making competitions. A total of 35 students participated in this event. As part of the 'Meri Mati Mera Desh' campaign, a Kalash Decoration program was organized on 7<sup>th</sup> October 2023. This program was sponsored by the Lalit Kala Academy, Regional Centre, Lucknow, in collaboration with the Department of Drawing and Painting at DEI. 22 students from the Bachelor of Fine Arts program participated in this event. Shri Venugopal Parashar, as an observer from Lalit Kala Academy, Regional Centre, Lucknow, coordinated the program.
- A Poster Making and Slogan Writing competition was held on 11 December 2023 during a medical camp, in celebration of Bhartiya Bhasha Utsav.

# Workshops/Conferences/Seminars/Webinars/Faculty Development Programme Attended

- Sonika presented a paper entitled 'The Thangka Painting-An Asian Heritage of Buddhist Art' in International Seminar on "Indian Impact on Contemporary Asian Art" organized by Department of Drawing & Painting, J.K.P. PG College, Muzaffarnagar, U.P. from 5th to 6th February 2024
- Sonika participated in One-Day Workshop on "IPR-Intellectual Property rights/copyrights" on 3rd February 2024 at DEI
- Sonika participated in One-Day Workshop on Open Book Examination System on 18th April 2024 at SoE, Faculty of Education
- Geetika Gumber, participated in Indian Traditional Textile and Handloom: Past and Future, National Conference (Online) organized by School of Design, Mody University Science and Technology Laxmangarh, Rajasthan in Collaboration with Weavers service Centre (Jaipur), Ministry of Textile, Government of India, from 5 – 7 August, 2023.
- Kanchan Kumari participated in a one-day workshop on " IPR-Intellectual Property right/copyright" organized by Dayalbagh Educational Institute under the aegis of Council of Science and Technology (CST), Lucknow, Uttar Pradesh on February 3 2024.

- Tyagi, Namita and Tiwari, Tulika, सिन्धु सभ्यता में निर्मित लालित्यपूर्ण खिलोनों की कलात्मक परम्परा: एक अध्ययन, Shodkosh: Journal of Visual and Performing Arts, A six Monthly UGC CARE Listed, Peer Reviewed/Refereed Journal 5(1), 331339. doi:10.29121/shodhkosh.v5.i1.2024.882., ISSN (Online): 25582-7472 Jan-June.2024,pp-331-339.
- 2. Anjali Chaudhary and Sonika, 'Rajasthan ki Indradhanushi Sanjhi ka kalatmak vishleshan', International Journal of Research and Analytical Reviews (IJRAR), an International Open Access, Peer-Reviewed, Refereed Journal, March 2024, ISSN: 2349–5138(P)

- Singh, Mahima and Thakur, Meenakshi, (2023). The Timeless Tradition of Mandala Art, Madhya Pradesh, Handicraft and Handloom, Granthalaya. ISBN No- 978-81-967555-5-3, 257-266.
- Nupur Lodhi and Meenakshi Thakur, आधुनिक भारतीय कलाकार धीरज चौधरी की कला में धर्म और समाज, Published in the edited book "कला संस्कृति (कल और आज): कला संस्कृति एवं साहित्य को समर्पित शोध-पुस्तक Editor- Prof. Vandana Verma and Dr Rajesh Gautam, published by Raashi Print-O-Pack, Muzaffar Nagar, 251001, U.P. ISBN No- 978 81-962380-0-1. 2023.
- 5. Renu and Sonika, (2023). विन्सेंट वैन गॉग की मानसिकता का चित्रों पर प्रभाव, International Journal of Research and Analytical Reviews (IJRAR), 10 (3), 107–113.
- 6. Aadesh Kumar Pandey, Vijaya Kumar, (2023). भोपाल के इंदिरा गांधी राष्ट्रीय मानव संग्रहालय में संग्रहीत पोखरण की टेराकोटा कला, International Journal of Creative Research Thoughts, 11(9), 250-253.
- 7. Aadesh Kumar Pandey, Vijaya Kumar, (2023). हिमालय ग्राम में निहित भवन निर्माण कलाएं, International Journal of Research and Analytical Reviews, 10(3), 336-342.
- 8. Kanchan Kumari, (2023). Relevance of folk art contained in malwa miniature Paintings in Indian Art History, Madhya Pradesh's Handicraft and Handloom, Granthalaya Publication, 1<sup>st</sup> Edition, 153-162. ISBN No- 978-81-967555-5-3.
- 9. Kanchan Kumari, (2023). मालवा लघु चित्रण शैली में आधारित रामायण और महाभारत के चित्रों का कलात्मक अध्ययन, Researchopedia, Chapter ID 18194, 17-23. ISBN-978-93-93166-28-9, Social Research Foundation, Kanpur.

# **Department of English Studies**

The Department of English Studies was started in 1947 at the erstwhile Women's Training College. It offers a diverse range of academic programs, including modular courses, an M.A. with a specialization in Journalism and Mass Communication, and a Postgraduate Diploma in Journalism and Mass Communication (PGDJMC).

The department has also made significant strides in comparative and multidisciplinary research, incorporating systems theory, film studies, and innovative approaches to language teaching. A landmark achievement has been its collaboration with the University of Kiel, Germany, fostering constructive and impactful student exchange programs. The department publishes the *DEI News* (monthly) and *DEI Magazine*.

# **Facilities in the Department**

The English Department has a highly advanced Information, Communication, and Neuro-Cognition Technologies Assisted Language Lab (i-c-n-c Tall). In addition, the department has established a state-of-the-art e-classroom and a video conferencing facility, enabling the synchronous transmission of classes for Journalism students. Furthermore, the department houses a Desktop Publishing Lab equipped with nine computers, all with internet access.

#### New Facilities Created in the Department during the year

The Rosetta Stone software for foreign languages and the Wordsworth English Language Lab software were renewed for another year at (i-c-n-c) Tall, Department of English Studies.

#### Faculty/ Staff Awards and Recognition

• Prof. J.K. Verma chaired a session and delivered a talk titled *"The Decolonized Mind: Exploring Identity and Potential Through Folk Drama"* on December 21, 2023, at the All-India English Teachers' Conference held at Meerut University. Additionally, Prof. Verma served as an expert for the Uttarakhand Public Service Commission on September 17–18, 2023, and as a member of the Screening Committee for selecting professors at Magadh University on May 21, 2024.

#### **Student Achievements/ Awards**

Astha Sharma, a Research Scholar, successfully cleared the UGC NET exam in English Literature in December 2023.

#### Workshops/Conferences/Seminars/Webinars Organized

- A Crash Course on Spoken English was organised for Class XI and XII students of DEI Prem Vidyalaya Girls' Inter College and REI Inter College from May 22 to June 4, 2024, under the aegis of Dayalbagh Day Boarding School. The course was conducted with the active support of the i-c-n-c (TALL) lab, where interactive, practical sessions of two hours each were held. Students used the Wordsworth Language software to practice various aspects of English, including language structures, pronunciation, and soft skills. The software's highly interactive features enabled students to identify their mistakes and improve effectively. To make the course more engaging, audio-visual materials were incorporated, such as film screenings, episodes from the Discovery Channel, TED-Ed Talks, and more, which were shown in the lab. Students' performance was evaluated, and the sessions contributed significantly to the success of the course.
- A Two-Day Special Workshop on 'Electronic Media' was organised for students of the Postgraduate Diploma in Journalism and Mass Communication on March 31 and April 1, 2024. The invited resource person for the workshop was Dr. Atul Upadhyay, Assistant Professor at Vivekananda Institute of Professional Studies–Technical Campus, New Delhi.



# Participation in Conference/Workshops/Seminar/Symposia/Webinar

- Dr. Shashi Srivastava participated in a Five-Day National-Level Faculty Development Programme (online) on *"Modern Literary Theories: Trends and Influences"* organised by the Department of Languages, Presidency University, Bangalore, from November 27 to December 1, 2023.
- Dr. Shashi Srivastava presented a paper titled *"Divakaruni's Independence: A Luminous Perspective"* at the International Interdisciplinary Conference on Methods, Aesthetics, and Genres in Language, Literature, and Communication, held on February 2–3, 2024, and organised by the Faculty of Science and Humanities, Poornima University, Jaipur, Rajasthan.
- Dr. Shashi Srivastava also presented a paper titled *"The Indomitable Spirit of Amrita Pritam's Puro as Analogous to Chitra Banerjee's Priya: Reifying Resilience"* at the Two-Day Hybrid International Conference on "Rhetoric of Resilience: Impact of Trauma on Language, Memory, and Cultural Narratives," held on March 8–9, 2024. The Department of English at Shri S.S. Shasun Jain College for Women, Chennai organised the event.
- Neha Maheshwari, presented a paper entitled *"Food as a Symbol of Memory, Culture, and Identity: A Diasporic Study of Rohinton Mistry's Family Matters* at the three-Day National Conference "Food and Culture: Transforming Perspectives and Paradigms," organized by the Department of Humanities, Indian Institute of Space Science and Technology, Thiruvananthapuram, in collaboration with the Indian Sociological Society, from December 13 to 15, 2023.
- Dr. Bani Dayal Dhir attended online Faculty Development Programme organized by AICTE, New Delhi from 2-6 October 2023.
- Neha Maheshwari attended the National Seminar "Savoring Diaspora: Culinary Imagery and Cultural Identity in the Selected Fiction of Indian Diasporic Women Writers," organized by Gokul Global University, Gujarat, in collaboration with Nucleus of Learning and Development, from May 9 to 15, 2024.
- Neha Maheshwari attended the National Seminar "Narratives and Realities: Exploring Modern Literary Theories and Emerging Discourses," organized by Nucleus of Learning and Development with Gokul Global University, Gujarat, from June 7 to 13, 2024.

- Chaturvedi, S., & Singh, S. (2024). Lost childhood: Trauma and loss of identity in the selected works of Khaled Hosseini and Paro Anand. *The Criterion: An International Journal in English*, *15*(2), 413–422.
- Khera, S., & Bhatia, N. (2024). Literature into reel: A study of Linda Costanzo Cahir's film adaptation theory. *International Journal of Novel Research and Development*, 9(1), 156–167.

- Khera, S., & Bhatia, N. (2024). Decoding myth and mystery in the cinematic masterpiece *Angels & Demons* by Ron Howard. *LangLit: An International Peer-Reviewed Open Access Journal, 10*(4),
- Seth, C., & Dhir, B. D. (2024). Systems theory and literature: Application of interpretive structural modelling to Jeet Thayil's *These Errors Are Correct*. *International Journal of Research and Technology Innovations*, 9(7), 8-13.
- Seth, C., & Dhir, B. D. (2024). Systems theory and literature: Application of interpretive structural modelling to Jokha Alharthi's *Celestial Bodies*. *International Journal of Research and Technology Innovations*, 6(3).
- Srivastava, S. (2024). The indomitable spirit of Amrita Pritam's Puro is analogous to Chitra Banerjee's Priya: Reifying Resilience. The Book of Abstracts of the Two-Day Hybrid International Conference on "Rhetoric of Resilience: Impact of Trauma on Language, Memory, and Cultural Narratives" (pp. xx-xx). Chennai, India. ISBN 978-93-340-2426-5.
- Seth, D. (2024, May). Futile quest for perfection: Understanding the aesthetics of Wabi-sabi through Girish Karnad's *Hayavadana*. *Indian Literature Sahitya Akademi Journal*. UGC care listed journal.
- Seth, D. (2023, July). Developing ecological and spiritual consciousness through Girish Karnad's *The Fire and The Rain*: A constructive approach towards sustainability. *Hans Shodh Sudha*. Peer-reviewed, refereed journal, Hansraj College, DU.
- Seth, D. (2023, August). The pursuit of completeness in Girish Karnad's *Hayavadana. Smart Moves Journal, IJELLH*. Peer-reviewed, refereed journal.
- Seth, D. (2023, September). Current recent trends in English literature: A step-by-step guide for pre-doctoral research. *Omniscient Journal*. Peerreviewed, refereed journal, Mahatma Jyotiba Phule Rohilkhand University, Bareilly.
- Seth, D. (2023, July). Developing ecological and spiritual consciousness through Girish Karnad's *The Fire and The Rain*: A constructive approach towards sustainability. *Hans Shodh Sudha*. Peer-reviewed journal.
- Singh, S. (2023, December). Insights into violence and aggression: A critical study of Taslima Nasrin's novel *Lajja*. *Langlit: An International Journal*. Peerreviewed, open access journal.
- Satsangi, S. (2023, August). Application of personality theory of criminal psychology to Nordic Noir: A study. *International Journal of English Literature and Social Sciences*. Peer Reviewed

#### **Placements**

• Saumya Saxena, from the M.A. English (2021–23) batch, has joined as a Content Writer at School Saarthi, a digital marketing company for schools based in Noida, Uttar Pradesh.

- Atira Joseph, from the M.A. English (2021–23) batch, has joined as an English Teacher at Queen Victoria Girls' Inter College, Agra.
- Sakshi Devnani, from the M.A. English (2021–23) batch, has joined as an English Teacher (Middle School) at Neerja Modi School, Jaipur, Rajasthan.

# Department of Hindi

The Department of Hindi offers various courses on हिन्दी भाषा एवं साहित्य. An optional two semester work experience certificate course is offered for the Honours students in जनसंचार एवं पत्रकारिता. At the post graduate level, it also offers courses on अनुवाद विज्ञान and ब्रजभाषा and several electives like प्रेमचंद, निराला, मुक्तिबोध, समकालीन हिन्दी विमर्श, समकालीन हिन्दी कविता, स्त्री विमर्श, दलित विमर्श, सन्त साहित्य और हिन्दी नाटक. The thrust areas of research are हिन्दी काव्य, हिन्दी गद्य, काव्य शास्त्र एवं आलोचना

# Faculty/Staff Achievements/ Awards

- डॉ. सूरज प्रकाश, विजिटिंग एसोसिएट प्रोफेसर, टोक्यो यूनिवर्सिटी ऑफ फ़ॉरेन स्टडीज, टोक्यो, जापान -1<sup>st</sup> October, 2021- March 2024.
- 2. डॉ. सूरज प्रकाश, अतिथि संपादक हिन्दी साहित्य पत्रिका, स्वामित्व प्रोफेसर हिदेआकी इशिदा, हिन्दी जापानी साहित्य परिषद, टोक्यो, जापान – 2023-2024.

# Workshops/Conferences/Seminars/Webinars Organized

- दिनाँक 5 मार्च 2024 को 'साहित्य का समाज शास्त्र : स्त्रीवादी दृष्टि' विषय पर अतिथि व्याख्यान -डॉ. अवंतिका शुक्ला स्त्री अध्ययन विभाग, महात्मा गांधी अंतरराष्ट्रीय हिन्दी विश्वविद्यालय, वर्धा, महाराष्ट्र।
- महिला दिवस (08 मार्च) के उपलक्ष्य में गुरुवार 07 मार्च को दयालबाग़ एजुकेशनल इंस्टीट्यूट की एनएसएस इकाई द्वारा अतिथि व्याख्यान का आयोजन किया गया। मुख्य वक्ता डॉ अवंतिका शुक्ला, स्त्री अध्ययन विभाग, महात्मा गांधी अंतरराष्ट्रीय हिन्दी विश्वविद्यालय, वर्धा, महाराष्ट्र ने अंतरराष्ट्रीय महिला दिवस के इतिहास को केन्द्रित करते हुए इसकी प्रासंगिकता पर प्रकाश डाला। उन्होने वैश्विक स्तर पर महिला अधिकारों के लिए होने वाले आंदोलनों का जिक्र करते हए भारत के प्रमुख महिला आंदोलनों के बारे में



विस्तार से बात की। डॉ अवंतिका शुक्ला ने विद्यार्थियों को संबोधित करते हुए उन्हें अपने अधिकारों के प्रति सजग रहने एवं अन्याय या भेदभाव के विरुद्ध प्रतिरोध करने की प्रेरणा दी, उन्होंने कहा कि आज स्त्री को जो अधिकार या बराबरी का दर्जा मिला है वह लंबे संघर्ष और अनेक बलिदान के बाद मिला है। हमें इसके महत्व को समझना चाहिए तथा इस परंपरा को जिम्मेदारी पूर्वक आगे बढ़ाना भी चाहिए।

- राष्ट्रीय संगोष्ठी 12-13 अप्रैल 2024 दयालबाग़ एजुकेशनल इंस्टीट्यूट (मानित विश्वविद्यालय) दयालबाग़,
- आगरा, भारतीय संत मत : दर्शन एवं सामाजिक उपयोगिता सहयोग: भारतीय दार्शनिक अनुसंधान परिषद, नई दिल्ली इस अवसर पर देश के कोने-कोने से पधारे प्राध्यापकों और शोधार्थियों ने सहभागिता की एवं शोध पत्र का वाचन किया।संगोष्ठी का प्रारम्भ प्रार्थना और विश्विद्यालय गीत के साथ हुआ। तत्पश्चात संगोष्ठी संयोजक डॉ. बृजराज सिंह ने स्वागत वक्तव्य और विषय की प्रस्तावना रखी। उद्धाटन सत्र को सम्बत करते हुए हुए केरल से पधारे प्रो. ए.अरविंदाक्षन ने



कहा कि संत साहित्य वर्तमान समय का प्रासंगिक और महत्वपूर्ण विषय है। इसका लक्ष्य इसमें निहित विश्व मानवता है। वस्तुतः भारतीयता को मैं वैश्विक दृष्टिकोण से देखता हूँ। काशी हिन्दू विश्वविद्यालय, वाराणसी के पूर्व हिन्दी विभागाध्यक्ष सदानंद साही ने कहा कि संत कविता नवीन न होते हुए भी नवीन है। भारतीय परंपरा में एक आंतरिक शक्ति है जो इसे नया करती रहती है। संत कविता हमें निर्भय बनती है।कार्यक्रम की अध्यक्षता कर रहे संस्थान के निदेशक प्रो. सी. पटवर्धन ने कहा कि यह संगोष्ठी संस्थान के अकादमिक विकास की दिशा में महत्वपूर्ण कदम है। संतमत भारतीय दर्शन का मूल है। विश्वविद्यालय का गीत हमारे उद्देश्य को स्पष्ट करता है। हमारा प्राचीन साहित्य और दर्शन विज्ञान का आधार है। यह सही मायने में हमें जीने के तरीके सिखाते हैं। मथुरा से पधारे डॉ. विजय शर्मा ने कबीर पर चर्चा करते हुए कहा कविता में भय का बिल्कुल स्थान नहीं है। संगोष्ठी के समापन सत्र के अध्यक्ष रूप में प्रो.आनंद मोहन, कुलसचिव डीईआई तथा विशिष्ट अतिथि के रूप में प्रो. सदानंद शाही, पूर्व हिन्दी विभागाध्यक्ष, काशी हिन्दू विश्वविद्यालय मंचस्थ रहे। संगोष्ठी के अंतिम सत्र का संचालन करते हुए संयोजक डा. बृजराज सिंह ने बताया कि संगोष्ठी में कुल तीस से अधिक विद्वानों ने भाग लिया तथा तथा पचास से अधिक शोध पत्र पढ़े। अध्यक्षीय उद्बोधन देते हुए कुलसचिव प्रो. आनंद मोहन ने आये हुए अतिथियों के प्रति आभार जताया और यह इच्छा प्रकट की कि ऐसी संगोष्ठियां लगातार होती रहनी चाहिए।

## • कार्यशाला-राष्ट्रीय शिक्षा नीति 2020

कार्यशाला-राष्ट्रीय शिक्षा नीति 2020 की सिफ़ारिशों को ध्यान में रखते हुए हिन्दी भाषा एवं साहित्य के पाठ्यक्रम को अद्यतन करने हेतु हिन्दी विभाग ने 9 मार्च 2024 को एक कार्यशाला का आयोजन किया। इस कार्यशाला में हिन्दी विभाग के सदस्यों के अलावा बाह्य विशेषज्ञ के रूप में प्रो.देवेंद्र कुमार चौबे, हिन्दी विभाग, भारतीय भाषा केंद्र, जवाहर लाल नेहरू विश्वविद्यालय, नई दिल्ली एवं प्रो कमलानन्द झा, हिन्दी विभाग, अलीगढ़ मुस्लिम विश्वविद्यालय, अलीगढ़ शामिल हुए।



#### • टोक्यो जापान में अंतरराष्ट्रीय हिन्दी सम्मेलन संपन्न

टोक्यो यूनिवर्सिटी ऑफ फॉरेन स्टडीज, टोक्यो, जापान , भारत सरकार एवं भारतीय राजदूतावास, जापान के संयुक्त तत्वावधान में 'दक्षिण, पूर्व और मध्य एशिया में हिन्दी की स्थिति ' विषय पर आयोजित तीन दिवसीय अंतरराष्ट्रीय हिंदी सम्मेलन 2 से 4 फरवरी 2004 को टोक्यो जापान में सफलतापूर्वक संपन्न हुआ। इस आयोजन में

#### 44 | Dayalbagh Educational Institute (Deemed to be University), Agra

सौ से अधिक भारत, साउथ कोरिया,श्रीलंका , वियतनाम एवं हिन्दी के जापानी विद्वान और छात्रों ने प्रतिभागिता की।

2 से 4 फरवरी तक चलने वाले इस अंतर्राष्ट्रीय हिन्दी सम्मेलन का उद्घाटन भारतीय दूतावास टोक्यो जापान में किया गया था। जिसमें सांस्कृतिक कार्यक्रम एवं हिन्दी की एक काव्यगोष्ठी का आयोजन भी हुआ। उद्घाटन सत्र के विशेष अतिथि महामहिम राजदूत श्री सि बी जॉर्ज, टोक्यो यूनिवर्सिटी ऑफ फॉरेन स्टडीज, टोक्यो, जापान की अध्यक्ष प्रोफेसर कयोको हयाशि, भारत के विदेश मंत्रालय के संयुक्त सचिव श्री रवींद्र जयसवाल, डिप्टी चीफ मिशन श्री मयंक जोशी जी, दूतावास में प्रथम सचिव श्री मनोज सिंह नेगी, पदम श्री अवार्ड से सम्मानित जापानी प्रोफेसर तोमिओ मिज़ोकामि, टोक्यो



यूनिवर्सिटी ऑफ फॉरेन स्टडीज, हिन्दी विभाग के अध्यक्ष प्रोफेसर मिजुनो, प्रोफेसर आदाचि और सम्मेलन के संयोजक प्रोफेसर सुरज प्रकाश बड़त्या इत्यादि उपस्थित थे।

इस अंतरराष्ट्रीय हिन्दी सम्मेलन के अवसर पर विशेष रूप से पिछले सौ वर्षों में जापान में हिन्दी की स्थिति पर जापानी विद्वानों और छात्रों द्वारा लिखे गए शोध पत्रों का संकलन, संपादन करके तैययार की गयी स्मारिका का विमोचन भी किया गया। इस स्मारिका का संपादन, टोक्यो यूनिवर्सिटी ऑफ फॉरेन स्टडीज, टोक्यो के हिन्दी

विभाग में विजिटिंग प्रोफेसर सूरज प्रकाश बड़त्या ने किया था। इसके अतिरिक्त टोमिओ मिज़ोकामि पर ओसाका के भारतीय प्रोफेसर वेदप्रकाश द्वारा संपादित पुस्तक एवं पिछले चालीस वर्षों से दाइटों बुनका यूनिवर्सिटी, जापान में हिन्दी के प्रोफेसर हिदेआकी इशिदा द्वारा निलने वाली पत्रिका हिन्दी साहित्य के विशेष अंक का भी विमोचन किया गया।

उद्घाटन सत्र में भारत के राजदूत श्री सि बी जॉर्ज ने वैश्विक स्तर पर हिन्दी के प्रचार-प्रसार के महत्व पर अपनी बात रखी। उन्होंने जापान में हिन्दी के अध्ययन-अध्यापन के लिए टोक्यो युनिवर्सिटी ऑफ फॉरेन स्टडीज, टोक्यो के योगदान



की सराहना की। इस अवसर पर विशिष्ठ अतिथि TUFS की अध्यक्ष प्रोफेसर कयोको हयाशि ने बताया की टोक्यो यूनिवर्सिटी ऑफ फॉरेन स्टडीज, लगभग सौ वर्षों से अधिक हिन्दी एवं अन्य हिन्दुस्तानी भाषाओं के अध्ययन-अध्यापन में संलग्न है। हिन्दी विभाग के अध्यक्ष प्रोफसर युशीफुमि मिजुनो ने स्वागत भाषण में भारत जापान एवं विदेशों से आयें हिन्दी के विद्वानों का ध्यान किया। भारत सरकार, भारतीय दूतावास के सहयोग की सराहना की। प्रोफेसर मिजुनो ने बताया की इस अंतरराष्ट्रीय हिन्दी सम्मेलन की हम वर्षों से प्रतीक्षा कर रहे थे। इसकी परिकल्पना को मूर्त रूप प्रोफेसर सूरज प्रकाश बडत्या के जापान आने के बाद देना शुरू किया। उन्होंने बताया कि वर्षों से हम इसके लिए कोशिश कर रहे थे सन 2012 के बाद से जापान में कोई भी हिन्दी का कार्यक्रम नहीं हो पाया था। वर्षों के इंतजार के पश्चात आज हमारा इंतजार खत्म है।

सांस्कृतिक कार्यक्रम में जापान में इंटरनेशनल स्कूल के बच्चों ने हिन्दी गीत एवं हिन्दी नाटक की प्रस्तुति की। काव्य गोष्ठी में जापान में बीस वर्षों से कार्यरत पर्यावरण विद एवं अर्थशास्त्री श्री संतोष पांडेय, श्री रवि रंजन, भारत से आये प्रो. नामदेव, प्रो. हरीश अरोड़ा श्री यशवंत, प्रो. मिजुनो इत्यादि ने अपनी कविताओं से श्रोताओं का मनोरंजन किया।

2-3 फरवरी 2024 को यह हिन्दी सम्मेलन टोक्यो यूनिवर्सिटी ऑफ फॉरेन स्टडीज, के सकुरा हॉल में जारी रहा। लगभग आठ सत्रों में विभाजित इस हिन्दी सम्मेलन में जापान, भारत साउथ कोरिया, वियतनाम इत्यादि देश के हिन्दी के विद्वानों ने वैश्विक सत्र पर हिन्दी की स्थिति पर परिचर्चा की। इसमें वियतनाम से श्री फाम दिन्ह हुना जी, जापान से पद्मश्री आदरणीय प्रो. मिजोकामी सेंसेई जी, सम्माननीय प्रो हिदेआकि इशिदा जी, चिहीरो कोइसो जी, मिकी फुजि जी, प्रसिद्द यू ट्यूबर मायो, श्रीमती प्रोफेसर इंदिरा भट्ट जी, ओसाका यूनिवर्सिटी से प्रो वेदप्रकाश जी, दक्षिण कोरिया से प्रो. थेजिन खो जी, डॉ ज्ञान प्रकाश जी, प्रो. सूर्य जी, भारत से प्रो. हरीश अरोड़ा, प्रो. प्रमोद कुमार जी, प्रो. श्यामसुन्दर पांडेय जी, प्रो. अमरजीव लोचन जी, श्री संतोष पांडेय जी, श्री जवाहर कर्णावत जी, संजीव कुमार डांडा जी, प्रो नामदेव जी, जापान में भारतीय राजदूतावास के अधिकारीगण, विभिन्न शोधार्थियों और विद्यार्थियों ने भाग लिया।

वर्षों से जापान में प्रतीक्षारत इस अंतरराष्ट्रीय हिन्दी सम्मेलन का श्रेय प्रोफेसर मिज़नों, प्रो आदाचि और विशेष रूप से दूतावास के प्रथम सचिव श्री मनोज सिंह नेगी और विजिटिंग प्रो सूरज प्रकाश बड़त्या को दिया जाना चाहिए।

# Workshops/Conferences/Seminars/Webinars/ Faculty Development Programme Attended

- सूरज प्रकाश, मुख्य अतिथि वक्तव्य दो दिवसीय अंतरराष्ट्रीय हिन्दी संगोष्ठी ( 24- 25 , 2024 ), विषय ' हिन्दी शिक्षण- अंतरराष्ट्रीय परिपेक्ष्य' आयोजक – केन्द्रीय हिन्दी संस्थान, आगरा।
- सूरज प्रकाश, बीज वक्तव्य दो दिवसीय अंतरराष्ट्रीय हिन्दी संगोष्ठी ( 5-6 मार्च 2024 ), विषय 'विदेश में व्यापार के क्षेत्र में हिन्दी' आयोजक – प्रताप कॉलेज, अमलनेर, जिला जलगांव, महाराष्ट्र।
- प्रतिभा ने दो दिवसीय राष्ट्रीय संगोष्ठी (14-15 सितंबर,2023, माथुर वैश्य महासभा भवन, पंचकुइया, आगरा), विषय- 'शैक्षणिक विषयों के विविध आयाम तथा सामाजिक व राष्ट्रीय भूमिका' में भागीदारी की तथा वीरेंदर जैन के डुब उपन्यास में विस्थापन की समस्या शोध पत्र का वाचन भी किया ।
- 4. प्रतिभा -दो दिवसीय अंतरराष्ट्रीय संगोष्ठी,29-30 मई ,2024,नेपाल भारत पुस्तकालय सभागार, भारतीय राजदूतावास, काठमांडू नेपाल विषय- शैक्षणिक विषयों में शोध की अवधारणा तथा राष्ट्रीय एवं अंतरराष्ट्रीय संदर्भ में हिंदी भाषा तथा साहित्य मैं शोध की अवधारणा आवश्यकता तथा महत्त्व विषयक शोध पत्र का वाचन किया।
- नीतू कुमारी ने राष्ट्रीय संगोष्ठी विषय –'भारतीय संत मत की सामाजिक उपादेयता' दिनांक 12.04.2024 -13.04.2024 में 'संत मत में श्रम की संस्कृति' शीर्षक से शोध पत्र वाचन किया आयोजक - दयालबाग़ एजुकेशनल इंस्टीट्यूट, आगरा एवं भारतीय दार्शनिक अनुसंधान परिषद, नई दिल्ली के संयुक्त तत्वाधान में।
- सोनिया यादव -दो दिवसीय राष्ट्रीय संगोष्ठी 14-15 सितंबर, 2023, माथुर वैश्य महासभा भवन, पंचकुइया,आगरा विषय-शैक्षणिक विषयों के विविध आयाम तथा सामाजिक व राष्ट्रीय भूमिका सोनिया यादव में हिंदी भाषा तथा साहित्य के विविध आयाम विषयक शोध पत्र का वाचन किया।
- सोनिया यादव दो दिवसीय अंतरराष्ट्रीय संगोष्ठी 29-30 मई, 2024, नेपाल भारत पुस्तकालय सभागार, भारतीय राजदूतावास, काठमांडू नेपाल विषय- शैक्षणिक विषयों में शोध की अवधारणा तथा राष्ट्रीय एवं अंतरराष्ट्रीय संदर्भ में हिंदी भाषा तथा साहित्य में शोध की अवधारणा तथा महत्त्व विषयक शोध पत्र वाचन किया।
- 8. रविकांत मीणा ने हिंदी विभाग, डी. ई. आई. दयालबाग़ , आगरा,भारतीय संत मत : दर्शन एवं सामाजिक उपयोगिता,आयोजक - दयालबाग़ एजुकेशनल इंस्टीट्यूट, आगरा एवं भारतीय दार्शनिक अनुसंधान परिषद, नई

दिल्ली के संयुक्त तत्वाधान में राष्ट्रीय संगोष्ठी में दिनांक 12 से 15 अप्रैल 2024 तक भागीदारी की तथा 'संत कविता और सामाजिक सुधार आन्दोलन' विषयक शोध पत्र का वाचन भी किया।

- दिगंबर सिंह-1 हिंदुस्तान अकादेमी और सी एम पी कॉलेज, प्रयागराज में आयोजित राष्ट्रीय संगोष्ठी (27-29 फरवरी 2024) में प्रतिभाग एवं 'धर्मवीर भारतीय के यात्रावृत्तांतों में अभिव्यक्त संस्कृति और समाज' पर शोध आलेख प्रस्तुत किया।
- 10. रागिनी जैन,ने अंतर्राष्ट्रीय संगोष्ठी, 13-14 फरवरी, 2024 'संस्कृतवांड्मयस्थ-कथासाहित्यस्य सर्वगामिता' केंद्रीय संस्कृत विश्वविद्यालय, लखनऊ में 'संस्कृत कथा साहित्य का हिंदी कथा साहित्य पर प्रभाव', विषयक शोध पत्र वाचन किया।
- 11. सुखवेंद्र कुमार , 27–29 फरवरी 2024 को इलाहाबाद विश्वविद्यालय में राष्ट्रीय संगोष्ठी में भाग लिया, शोध पत्र का विषय – 'भाषा ,साहित्य,कला,और संस्कृति शिक्षण के नए आयाम :संदर्भ राष्ट्रीय शिक्षा नीति 2020' था।
- 12. सुखवेंद्र कुमार ने 12–13 अप्रैल 2024 को दयालबाग़ एजुकेशनल इंस्टीट्यूट में राष्ट्रीय संगोष्ठी में भाग लिया। विषय "कबीर के साहित्य में दार्शनिक चेतना।"
- 13. अर्चना चिटावत, 12-13 अप्रैल 2024 को दयालबाग़ एजुकेशनल इंस्टीट्यूट में राष्ट्रीय संगोष्ठी 'भारतीय संत मत : दर्शन एवं सामाजिक उपयोगिता' में भाग लिया तथा शोध पत्र विषय - संत साहित्य की सामाजिक उपयोगिता का वचन किया।
- 14. रागिनी जैन, अंतर्राष्ट्रीय संगोष्ठी 21-22 फरवरी, 2024, दिल्ली विश्वविद्यालय, दिल्ली 'भारतीय संस्कृति एवं ज्ञानपरंपरा - प्राचीन एवं आधुनिक परिप्रेक्ष्य' में शोध पत्र वाचन – 'पुष्पा सक्सेना के कहानी साहित्य का भाषिक सौंदर्य'।
- 15. रागिनी जैन, राष्ट्रीय संगोष्ठी साहित्य के विविध विमर्श, गुरुनानक गर्ल्स कॉलेज, हरियाणा, 15 मार्च, 2024, 'साहित्य और सिनेमा' विषयक शोध पत्र वाचन।
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- 17. डॉ. बृजराज सिंह ने 7 से 10 अक्टूबर 2023 तक कुशीनगर स्थित राजकीय बौद्ध संग्रहालय में आयोजित राष्ट्रीय संगोष्ठी में एक शोध पत्र प्रस्तुत किया।

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# **Department of Music**

The Department of Music was started in the year 1955. The Department was part of Women's Training College Dayalbagh, affiliated to Agra University (Dr. Bhim Rao Ambedkar University). Since 1981, as part of the newly established Dayalbagh Educational Institute (Deemed to be University), Dayalbagh Agra it has become an integral part of the Faculty of Arts. The department was opened in the beginning with only one stream, i.e. Indian Classical Vocal Music, for undergraduate classes. Later on, undergraduate courses in Sitar and Tabla were also introduced. In 1976, postgraduate classes in Sitar and Vocal Music were introduced, and later on, post-graduation classes in Tabla were also introduced.

The department has sufficient musical instruments and a good digital recording and audio-visual library. The thrust areas of research of the department are Music and Consciousness Studies, Folk Music, Devotional Music, Music Therapy, Multidimensional Approaches to Music Education etc.

## Faculty/Staff Achievements/ Awards

- Prof. Lovely Sharma performed as part of a group featuring the sitar, synthesiser, and guitar at Bhavan's College, London, on August 19, 2023. She also performed solo sitar at Nordic, London, on October 15, 2023. Additionally, she participated in a group sitar and vocal recital at the Book Fair in Agra on November 28, 2023. Prof. Sharma performed on the sitar at the Taj Mahotsav, Agra, on February 23, 2024, and delivered another sitar performance in Prayagraj on February 27, 2024.
- Prof. Neelu Sharma participated as an invited expert in an international webinar organized by S. S. Khanna Degree College, Prayagraj, on October 13, 2023. She performed a tabla recital at the Taj Mahotsav, Agra, on February 21, 2024, and took part in a tabla group recital at Ayodhya Ramotsav, organized by Sangeet Natak Academy, Lucknow, on February 26, 2024.
- Dr. Gautam Tiwari performed a classical vocal recital at Taal Sargam Academy, Agra, on March 9, 2024.
- Dr. Shivendra Pratap Tripathi gave a tabla solo performance at the Malhar Sringar Mahotsav, organized by Sangeet Kala Kendra, Agra, on September 30, 2023. He also participated in a tabla group recital at Ayodhya Ramotsav, organized by Sangeet Natak Academy, Lucknow, on February 26, 2024.
- Dr. Darash Adhari received the Sangeet Manishi Raghunath Talegaonkar Award from Sanskar Bharti Natya Kendra, Agra, on October 24, 2023. She was also honored with the International Women Achiever Award by the Utthan Foundation, New Delhi, on March 8, 2023. Dr. Adhari was invited as a keynote speaker for a three-day national workshop organized by the Department of Sanskrit, Faculty of Arts, D.E.I. Dayalbagh, Agra, from November 1–3, 2023. Additionally, she served as a speaker in a national workshop organized by Vimla Devi Deshmukh Mahavidyalaya, Amravati, Maharashtra, on January 25, 2024.

• Dr. Bhanu Pratap Singh accompanied Pt. Sameer Bhalwrao on the tabla during the *Sur Rangotsav* organized by Sangeet Kala Kendra, Agra, on March 9, 2024. He also performed a Tabla solo and received the *Naad Gaurav Award* from the Pt. Raghunath Talegaonkar Foundation Trust, Sangeet Kala Kendra, Agra, on May 26, 2024.

## Workshops/Conferences/Seminars/Webinars Organized

- Malhar Utsav was organised on August 9, 2023, featuring performances by students from various faculties and departments.
- An Instrument Repair Workshop was conducted from August 10 14, 2023, led by the renowned sitar maker, Mr. Tapan Roy from Kolkata.
- A Workshop on Carnatic Music and Mridangam was held on September 6, 2023, conducted by the expert Guru Sadguru Charan.
- A Workshop on Yoga and Music took place on September 13, 2023, facilitated by Acharya Niransh Chaitanya from Rishikesh, Uttarakhand.
- Renowned tabla maestro Pt. Hindole Majumdar was invited for a Lecture-Demonstration on March 10, 2024.
- A Three-Day International Seminar was organised from January 16 -18, 2024. The resource persons included Prof. Mandvi Singh (Vice Chancellor, BSS, Lucknow), Pt. Gouri Shankar Karmarkar (Tabla Artist, USA), Pt. Indradeep Ghosh (Violin Artist, USA), and Mrs. Veena Chandra (Sitar Artist, USA).

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- 5. Tripathi, Shivendra Pratap (2024). "भारतीय संगीत का पर्यायवाची है घराना एवं गुरु-शिष्य परंपरा" published in a book by S.R. Scientific Publication, Agra, ISBN: 978-93-93483-225.
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- 27. Kulshresth, K. (2023). "तबला वादन में कायदा: अर्थ, प्रकार और महत्त्व", Samdarshi, 16(5), ISSN: 2581-3986.
- 28. A book published from Music department entitled "भारतीय संगीत शिक्षण के विविध आयाम" in January 2024.

#### **Placements**

- Divyanshi Saini has been appointed as a Teacher at PM Shri Kendriya Vidyalaya, Kathua, Jammu & Kashmir.
- Soniya Kumari was appointed as a Teacher at PM Shri Kendriya Vidyalaya, Chandigarh.
- Arti Gupta was appointed as a Teacher at PM Shri Kendriya Vidyalaya, Bhubaneswar, Odisha.
- Pranali Singh was appointed as a Teacher at PM Shri Kendriya Vidyalaya, Hyderabad.

# **Department of Home Science**

Home Science education aims to maximize satisfaction for individuals and their families through the efficient and scientific use of available resources. Over the years, the Department of Home Science at DEI has made significant strides, establishing itself as one of the leading Home Science programs in the country. It offers a range of academic programs, including B.Sc., B.Voc., M.Sc., M.Voc., and Ph.D. The department's syllabus is designed with a practical orientation, equipping students with the knowledge and skills needed for specialized areas of study.

The department comprises 1 Professor, 10 Assistant Professors, and 1 Emeritus Professor. The scope of Home Science has broadened significantly in recent years, expanding into areas such as extension and outreach activities, skill development, and entrepreneurship. In line with the objectives of the Ministry of Skill Development and Entrepreneurship, Government of India, the department has introduced vocational programs such as B.Voc. and M.Voc. in Apparel Design and Food Processing and Preservation.

The department is at the forefront of state-of-the-art research in various fields of Home Science. The major thrust areas of the department include Development of Occupational/Functional Clothing, Zero Waste Designing Techniques, Upcycling of Textile and Apparel Waste, Processing of Minor Millets, Processing and Development of Herbal products, Green Diet practices, Family Finances, Consumer Education, Community Development and women enterprise, Stress coping strategies and Parenting techniques. The department has signed an MOU with the Department of Biotechnology for a foldoscope project. Additionally, the Food Processing and Preservation Lab has received FSSAI Certification from the Department of Food and Drug Administration, Government of Uttar Pradesh, under the Food Safety and Standards Act, 2006 (License Number: 12718001000446). The department focuses on Food Processing & Preservation, Sustainable Food Processing: Exploring environmentally-friendly practices in food processing and preservation, Emerging Technologies: Staying updated on the latest advancements in food processing technology, like high-pressure processing or nanotechnology applications, Food waste reduction, Food safety and security, Empowering women by imparting skills, Occupational clothing for various industries, Sustainable Designing practices, Research and practice of sustainable materials, eco-friendly production processes, and responsible consumption to address environmental and ethical concerns in the apparel industry, Empowerment of rural women through small scale skill-based model to establish self-sustainable enterprises having linkages from rural economic zone to special economic zone. Providing in-depth training in garment construction techniques and pattern making, ensuring proficiency in creating high-quality garments, Emphasizing digital design tools, computer-aided design (CAD) software to keep up with technological advancements, Analysing and incorporating cultural diversity, inclusivity, and contemporary apparel trends into design concept, Exploring new materials and technologies in textiles, including smart textiles, biodegradable fabrics, and innovations in dyeing and printing, Incorporating Integrated waste minimization techniques such as zero waste designing, recycling and upcycling in apparel design, Focusing on retail strategies for marketing of products developed by the students through online portals and in-house displaycum-selling counters. Offering opportunities for students to gain practical experience through internships in apparel companies or design studios.

The department has labs pertaining to Food Processing & Preservation, Apparel Design, Human Development lab and Extension Education lab. The labs are equipped with an OXY fryer, OTG, Microwave oven, Hot air oven, Refrigerators, Deep Freezers, Lug capping machine, Insulates filling machine, Fruit mill, Hydraulic press, etc.

#### Staff Achievements/Awards/Recognitions

• Saraswat, S. received a Certificate of Appreciation for serving as a Judge at the 31<sup>st</sup> KVS National Children's Science Congress, held at the Air Force Station, Agra, in November 2023.

## **Student Achievements/ Awards**

• Bhatnagar, G. was awarded the Best Oral Presenter Award for the paper titled *"Plant-Centric Diet for India: A Trifecta of Public Health, Planetary Wellbeing, and Sustainability – A Review"* at the 2<sup>nd</sup> International Conference on Clinical and Nutritional Dietary Lifestyle, organised by the Universal Society of Foods and Nutrition, held from 22 - 23 February 2024.

#### **Projects Sanctioned**

1. Saraswat, S. received seed money from DEI for a Project on Dose-response effect of Vitamin D3 fortified chocolate supplementation on Vitamin D metabolites and body composition in children

#### Seminar/Symposia/Conference/Webinar Organized

• The Department of Home Science organised a one-day Curriculum Development Workshop in hybrid mode for a new graduation degree on "*BSc Sustainable Community Science*" on July 15, 2023. Experts from the fields of community science/home science, food science and nutrition, agriculture, and human development/psychology were invited from academic institutions and industries. 14 External Experts and staff from various DEI departments were present in the Workshop, whose suggestions guided in designing the course. DEI's Academic Council has approved this course, and it has been introduced in the current academic session 2023-24.

# Workshops/Conferences/Seminars/Webinars/Faculty Development Programmes Attended

- 1. Swami, C. participated in the Refresher Course on Teacher Education from 23 June 8 July, 2023, organised by the UGC Human Resource Development Centre Aligarh Muslim University, Aligarh and obtained an A+ Grade.
- 2. Swami, C. participated in the 8 Day National level Online Faculty Development Program on Research Methodology using ChatGPT and Al tools organised by the PG Department of Computer Applications, The Internal Quality Assurance Cell (IQAC) and Lincoln University College Marian Research Centre (LUC MRC) of Marian College Kuttikanam (Autonomous) in association with The Kerala State Higher Education Council (KSHEC) from 21 to 29 September, 2023.
- 3. Samrin Gupta presented a paper entitled "Effect of Blanching Treatment on Antinutritional Content and Storage Stability of Biofortified Pearl Millet Flour at Different Temperatures" at the International Conference on Climate Change and Agriculture: Impacts, Mitigation, and Adaptations for Sustainable Food Security and Livelihood Improvement (ICCA 2024) organised by Acharya Narendra Dev University of Agriculture and Technology, Ayodhya, UP, from March 1- 2, 2024.
- 4. Khushbu Tyagi presented a paper entitled "A Review Gender Inequality of Women in Tribal Communities" at the National Seminar on the Role of Tribal

Women in Nation Building after 75 Years of Independence, organized by Mahavidyalaya BHU, Varanasi (UP), India, from August 4 -5, 2023.

- 5. Neha Agarwal participated in and successfully completed a 12-hour course on Basic and Advanced Excel, organised by the ICT Continuing Education Centre, DEI Dayalbagh, from September 10th to November 5, 2023.
- 6. Rimjhim Pathak participated in a 1-week workshop on "Python for Biologists" from April 3-10, 2024.
- Garima Bhatnagar presented a paper entitled "Plant-Centric Diet for India: A Trifecta of Public Health, Planetary Wellbeing, and Sustainability – A Review" at the 2<sup>nd</sup> International Conference on Clinical and Nutrition Dietary Lifestyle, organised by the Universal Society of Foods and Nutrition, on February 22 -23, 2024.
- 8. Garima Bhatnagar participated in a webinar on "Exploring Missing Links in the Nutritional Management of Chronic Diseases" organised by the IAPEN India Association, Bangalore, on June 4, 2024.
- 9. Garima Bhatnagar participated in the "Introduction to Ayurveda Dietetics Course" organised by TDU, Bangalore, in May 2024.
- 10. Bhawna Sharma presented a paper entitled "Self-Help Groups as an Income Generation Source in Sambhar Block, Jaipur" at the National Seminar on the Role of Tribal Women in Nation Building after 75 Years of Independence, organised by Mahila Mahavidyalaya, Banaras Hindu University, Varanasi, from August 4-5, 2023.
- 11. Samrin and Sangita Saini presented a paper entitled "Contribution of Tribal Women to the Economic Status of the Family" at the National Conference on the Role of Tribal Women in Nation Building after 75 Years of Independence, at Mahila Mahavidyalaya, BHU Varanasi, from August 4 -5, 2023.
- 12. Ayasha Beg, Bansal S., and Swami C. presented a paper entitled "Revolutionizing Sustainability: Innovative Utilization of Fabric Waste in Eco-Friendly Brick Production" at the 7<sup>th</sup> International Conference on Technical Textiles and Nonwovens: Sustainable Technologies and Entrepreneurship -Pioneering the Future of Technical Textiles, organised by the Indian Institute of Technology Delhi, India, from December 12-14, 2023.
- 13. Ayasha Beg and Charu Swami presented a paper entitled "Green and Sustainable Extraction of Dyes from Water Hyacinth (Eichhornia Crassipes) Leaves for Environmental Remediation" at the Symposium on Climate Change and Khadi, organized by Lady Irwin College, Delhi, India, on October 7, 2023.
- 14. Subhra Saraswat presented a poster entitled "Prevalence of Malnutrition Among Rural Children Under 5 Years in Rural Areas of Agra District" at NIN 2023.
- 15. Ayasha Beg participated in an "IPR Intellectual Property Rights / Copyrights" workshop at Dayalbagh Educational Institute on February 3, 2024.

- 16. Ayasha Beg presented a paper entitled "Revolutionizing Sustainability: Innovative Utilization of Fabric Waste in Eco-Friendly Brick Production" at the International Conference on ICTN 2023, 7<sup>th</sup> International Conference on Technical Textiles and Nonwovens, held at the Indian Institute of Technology, Delhi, from December 12- 14, 2023.
- 17. Ayasha Beg presented a paper entitled "Green and Sustainable Extraction of Dyes from Water Hyacinth (Eichhornia Crassipes) Leaves for Environmental Remediation" at the symposium on "Climate Change and Khadi," at Lady Irwin College, Delhi, on October 7, 2023.

- 1. Samrin, J., Jadon, P., & Saini, S. (2024). Empowering women: Examining the performance and sustainability of self-help groups in social systems. International Journal of Home Science.
- 2. Subhra, S. (2024). Prevalence of malnutrition among rural children under 5 years in rural areas of Agra district. International Journal of Multidisciplinary Research. [Abstract published].
- 3. Verma, R., Sharma, A., & Kumari, P. (2024, October). Role of CHATGPT in divergent production abilities among PG students and research scholars. *International Journal of Creative Research Thoughts (IJCRT)*. International peer-reviewed & refereed journal.
- 4. Pathak, R., Tirumalai, P. S., & Kashyap, S. (2023). Exploring the microbiome through probiotics and psychobiotics: Deciphering the gut-brain link. Acta Scientific Microbiology, 6(12).
- 5. Pathak, R., Kashyap, S., & Tirumalai, P. S. (2023). Time-dependent growth pattern study of Lactobacillus spp. and Bifidobacterium spp. in the presence of Tartrazine, an azo dye. Journal of Microbiology and Experimental Biology, 11(1), 20-24.
- 6. Sharma, B., Kashyap, S., & Sharma, J. (2023). Self-help groups contribute to sustainable development. Journal of Emerging Technologies and Innovative Research, 2349-5162.
- 7. Awasthi, A., & Swami, C. (2023). Sustainable fashion in the Indian context: An analysis. International Journal for Multidisciplinary Research, 5(5), 1-9.
- 8. Awasthi, A., & Swami, C. (2023). Sustainable practices in the apparel industry: A comparative analysis. International Research Journal of Management, Sociology & Humanity, 14(10), 11-18.
- 9. Varshney, P., & Swami, C. (2023). Modularity approach in apparel design: A step towards sustainable clothing. International Journal of Textile and Fashion Technology, 13(2), 1-10.
- 10. Varshney, P., & Swami, C. (2023). Promoting sustainability in apparel design through a modular approach. International Journal for Research Trends and Innovation, 8(11), 446-451.

- 11. Varshney, P., & Swami, C. (2023). Development of innovative pockets for women's workwear. International Journal of Home Science, 9(3), 255-261.
- 12. Beg, A., & Swami, C. (2023). Green and sustainable extraction of dyes from water hyacinth (Eichhornia crassipes) leaves for environmental remediation. Symposium on Climate Change and Khadi, Lady Irwin College, Delhi.
- 13. Beg, A., & Swami, C. (2023). Revolutionizing sustainability: Innovative utilization of fabric waste in eco-friendly brick production. ICTN 2023, Indian Institute of Technology, Delhi.
- 14. Verma, R., & Sharma, A. (2023). Dream analysis: Insights into the unconscious mind. Journal of Emerging Technologies and Innovative Research (JETIR). Peer-reviewed, refereed journal.

#### **Book Chapter**

1. Samrin, & Saini, S. (2024). Contribution of tribal women in the economic status of the family. In Wisdom World Publication.

#### **Placements**

- Arushi Sharma has been appointed Assistant Merchandiser at Magnolia Martinique Clothing Pvt. Ltd., Noida.
- Deepa Srivastava has been appointed as an Assistant Merchandiser at Kishore Export, Agra.
- Nidhi has been appointed Assistant Designer at Radiant Export Private Limited, Noida.
- Nisha Tyagi has been appointed Assistant Merchandiser at Radiant Export Private Limited, Noida.
- Prerna Gupta has been appointed Assistant Designer at Rainbow Fabart Pvt. Ltd., Noida.
- Dr. Indresh Kumar has been appointed as the Programme Coordinator for the Regional Centre of Excellence in Nutrition Rehabilitation Resource and Training at the Department of Paediatrics, AIIMS Bhopal, Madhya Pradesh.

# Department of Sanskrit

The Dept. of Sanskrit was established in the erstwhile Women's Training College, offering Sanskrit language and literature courses at the undergraduate level in 1968 and became a part of the Faculty of Arts with the establishment of the Dayalbagh Educational Institute as a Deemed to be University in 1981. In 1986, regular postgraduate degree classes started with courses offered in 'Sanskrit and Culture'. From the session 2013-14, the department also offers specialisation in Grammar at the postgraduate level. M.Phil in Sanskrit started in January 2009. Integrated programmes in theology (P.G. Diploma, M.A., M. Phil & Ph. D.) have also been run by the department since 2009-10. The PG diploma on Theology is run internationally

through its Centres in New York, Chicago, Toronto, San Francisco, London and Waterloo, Canada. The department also offers two core courses, 1) Indian Culture and 2) Comparative Study of Religion, each of which is one semester long. These courses are compulsory for all Undergraduate students and students pursuing technical education (Technical College). The department also offers a six-semester work experience course on Applied Sanskrit, which imparts basic knowledge of computers to Sanskrit students. The department is trying to facilitate spoken Sanskrit and incorporate ethics and Indian culture into the curriculum. The department has also published the book on Indian Culture and Comparative Study of Religion, which is the textbook for these Core Courses of the Institute. The department's research areas are Sanskrit literature (traditional and Modern), Puranas, Ethics, religion, Indian Philosophy, Grammar and Interdisciplinary topics related to Sociology, Economics, Management and Science. The members of the department have also authored several chapters like many सुश्लोक-कलापम्, आरुण्या, मेघा, संस्कृत-शिक्षणम्, वर्णोच्चारणम् in the I.C.N.C Tall (Information communication Neuro cognitive Technologies Assisted language lab).

# **Staff Achievements and Awards**

- Dr. Anita was awarded the Nari Shakti Gaurav Samman by Maharaja Vikramaditya Shodhpeeth, Ujjain. She was appointed Chairperson for the International Conference at Vikramaditya Shodhpeeth, MP held from 7-9 April 2024.
- Dr Nishith Gaur was awarded the Aacharya Chanakya Samman 2023 by Vilakshana Ek Sarthak Pahal Samiti, Ajayab, Haryana. She was also awarded the Rashtraputri Samman 2023 by Gugan Ram Educational & Social Welfare Society, Bhohal, Haryana. Dr. Gaur chaired a session and delivered a lecture at the International Conference on the Philosophy of Vaishnav Vedanta entitled "Vaishnav Bhakti Dhara" at Jawaharlal Nehru University, New Delhi, from 26 - 27 August 2023. Additionally, she was invited as the Guest Editor for the special issue on Bohal Shodh Manjusha, an International Peer-Reviewed, Refereed, Multi-disciplinary and Multiple Languages Research Journal (July 2023 issue). She delivered a lecture on the topic, "मुनिश्री प्राणम्यासागर विरचित

'अनासक्त महायोगी महाकाव्य' में रसाभिव्यक्ति" at National Conference on भारतीय ज्ञान परंपरा एवं

श्रमण संस्कृति: एक अनुशीलन organised by Shree Syadvad Mahavidyalaya, Varanasi, UP, from 1 - 2 October 2023. She was also a Judge in District and Mandal (sub-district) level Sanskrit Song Competitions organised under the Bharatiya Bhasha Utsav Sanskrit Talent Exploration Programme by Uttar Pradesh Sanskrit Sansthan, Lucknow, on October 10, 2023.

- A book titled Sound Consciousness in Various Religions, edited by Prof. Agam Kulshrestha (Ex-Head, Department of Sanskrit, DEI) and co-edited by Dr. Nishith Gaur, was published by Shivalik Prakashan, New Delhi (ISBN 978-81-96100-55-1).
- Dr. Nishith Gaur was invited to deliver the मुनीश्री प्रणाम्य सागर विरचित अनसक्त महा Lecture at the National Conference on बहुभाषिक परिवेश में मातृ भाषा शिक्षण: चुनौतियाँ एवं

संभावनाएँ" organized by Kendriya Hindi Sansthan on 28 and 29 March 2024. She was invited to deliver a lecture at the पंचदश दिवसीय संस्कृत संचारण शिविर at Dr. B.R. Ambedkar University, from 20 June - 5 July 2023. She was also invited to lecture at the सङ्गीत-संभाषण-शिविरम् at Dr. B.R. Ambedkar University, from 28 May to 4 June 2024.

# **Ongoing Research Projects**

The project titled "A Study on the Impact of Chanting in Raising State of Consciousness in Major Indian Religions" was coordinated by Dr. Rubina Saxena. The project was funded by a Seed Money Grant of two lakhs from the Non-Government Fund of Dayalbagh Educational Institute (DEI).

# Workshops/Conferences/Seminars/Webinars Organized

1. A three-day workshop on 'Chanting Practices in Various Religions' was organised from 1-3 November, 2023.

## Workshops/Conferences/Seminars/Webinars Attended

- Dr. Shobha Bhardwaj attended FDP for Pedagogical Innovations and Strategies in Higher Education from A.C.T. Academy, Tamil Nadu, India, from 31-07-2023 to 7-08-2023.
- Dr. Rubina Saxena participated in National Seminar on "Sāṅkhya System in ŚrīmadBhāgavatam", organised by the Institute for Science and Spirituality Delhi in collaboration with the Indian Council of Philosophical Research (ICPR) and School of Sanskrit and Indic Studies, Jawaharlal Nehru University on 20 April 2024 at SSIS, JNU, New Delhi, India.
- Dr. Rubina Saxena attended one week of FDP on 'Management Development and Academic Leadership' conducted by ACT Academy Tamil Nadu from 1-12-2023 to 7-12-2023.

- 1. Anita, D. (2024). भारतीय संस्कृति के विविध आयाम, भारतीय संस्कृति का प्राणभूत तत्व: दाहर विद्या ISBN 978-93-91297-86-2.
- 2. Bhardwaj, S. (2024). Higher Education in India, उच्च शिक्षा में स्वतंत्रता या स्वच्छंदता. ISBN 978-93-88361-59-0.
- 3. Saxena, R. (2023). Significance of Religious Chanting in Various Religions. International Journal of Creative Research Thoughts, 11(12).
- 4. Saxena, R. (2023). Significance of Teachings of Srimad Bhagvad Gita in Contribution to Better Worldliness. International Journal of Creative Research Thoughts, 11(12)
- 5. Gaur, N. (2024). वेदों में जल संरक्षण. PARITANTRA Journal of Systems Science and Engineering, 28(1),
- 6. Gaur, N. (2024). भारतीय ज्ञान परंपरा में पर्यावरण के सूत्र। इन भारतीय ज्ञान परंपरा के विविध संदर्भ (Special Issue), 1,

- 7. Bhardwaj, S. (2023). दशकुमाचारितम्, विश्रुतचारितम्. Yuvraj Publication.
- 8. Bhardwaj, S. (2023). श्रीमद्भगवद्गीता (महत्त्वपूर्ण अध्यायों का विवेचन) Yuvraj Publication.
- 9. Bhardwaj, S. (2023). कंप्यूटर का सामान्य परिचय. Yuvraj Publication. ISBN 978-93-84560-83-4.
- 10. Anita, D. (2023). कीर्तार्जुन्यम्, प्रथमसर्ग. Yuvraj Publication.
- 11. Anita, D. (2023). शिशुपालवधम्, प्रथमसर्ग. Yuvraj Publication.
- 12. Kulshrestha, A., & Gaur, N. (2023). Sound Consciousness in Various Religions. Shivalik Prakashan. ISBN 978-81-96100-55-1.
- 13. Kulshrestha, A., & Gaur, N. (2023). संस्कृत वाङ्मय में पारंपरिक ज्ञान-विज्ञान. Yuvraj Publication. ISBN 978-93-84506-82-7.
- 14. Gaur, N. (2023). Vaishnav Bhakti Dhara, Philosophy of Vaishnav Vedanta. Institute for Science and Spirituality, IKS Research Centre, ISKCON, New Delhi. ISBN 978-91-0084951-958.
- 15. Gaur, N. (2023). वाक् चेतना, Sound Consciousness in Various Religions. Shivalik Prakashan, New Delhi. ISBN 978-81-96100-55-1.
- 16. Gaur, N. (2023). संस्कृत की भारतीय परंपरा, भारतीय ज्ञान परंपरा विविध आयाम. Insha Publications, New Delhi. ISBN 978-93-88647-36-6.

# **Faculty of Commerce**

The Faculty of Commerce at Dayalbagh Educational Institute (DEI), originally established as part of erstwhile REI Degree College, holds the distinction of being the oldest faculty within the Institute. Since the commencement of Bachelor of Commerce (B.Com.) in 1947, the Faculty has consistently advanced its academic pursuits to remain aligned with the dynamic economic landscape of India. It functions through two distinct departments: **Accountancy and Law** and **Applied Business Economics**, both meticulously designed to address the multifaceted demands of the national and global economies.

#### **Milestones and Academic Initiatives:**

**1. Expansion through Open and Synchronous Learning**: In July 2008, the Faculty broadened its reach by offering the B.Com. (Hons.) program nationwide, extending educational opportunities to underprivileged and tribal regions. This initiative aligns with DEI's overarching philosophy of providing inclusive and holistic education.

#### 2. Curricular Innovation and Relevance:

- The Faculty's curriculum incorporates a judicious blend of theoretical knowledge and practical project work, fostering a comprehensive understanding of Commerce.
- The syllabus is periodically updated to reflect contemporary academic and industry requirements, as exemplified by the National Workshop on Commerce Curriculum in Changing Scenario, convened in March 2008.

#### 3. Career Development and Placement Excellence:

- The Faculty's Placement Cell has consistently facilitated student recruitment in esteemed organizations, including IBM Daksh, American Express Bank, and HDFC.
- Complementary personality development programs enhance students' employability and professional competencies.

#### 4. Research and Scholarly Contributions:

- The Faculty is actively engaged in national and international conferences, seminars, and academic publications.
- Research priorities encompass critical domains such as:
  - Macro-Economic Analysis
  - International Trade
  - Financial Reporting
  - Accounting Standards
  - Corporate Governance

 Several UGC-funded research projects are underway, and additional proposals have been submitted to further advance scholarly endeavors.

# **Dedication to Academic Excellence:**

Through its integration of rigorous academic programs with real-world application, the Faculty of Commerce exemplifies its commitment to fostering well-rounded and industry-ready graduates. Its sustained focus on curricular innovation, research excellence, and career development ensures its enduring contribution to commerce education and the broader economic framework of the nation.

The **Faculty of Commerce**, with its commitment to continuous improvement, is dedicated to equipping students and researchers with advanced knowledge and practical skills, preparing them for impactful careers and significant contributions to the field of commerce. The faculty offers a range of **programs** designed to cater to diverse interests and specializations:

Undergraduate Programmes:

- **B.Com. (Hons):** A comprehensive program offering in-depth knowledge of commerce fundamentals.
- **B.Com. (Hons) (Corporate Accounting and Law):** Focuses on specialized areas of corporate accounting practices and legal frameworks.
- **B.Com. (Hons) (Transdisciplinary Accounting):** Integrates accounting with interdisciplinary approaches for broader perspectives.
- **B.Voc.** (Accounting and Taxation): A skill-oriented program aimed at building expertise in accounting and taxation practices.

Postgraduate Programmes:

- **M.Com. (General):** Provides a broad understanding of commerce with advanced theoretical and practical insights.
- **M.Com. (International Business):** Specializes in global business operations, trade practices, and international market strategies.
- **M.Com. (Corporate Accounting and Law):** Concentrates on advanced corporate financial reporting and legal studies.

Doctoral Programme:

• **Ph.D.**: Advanced research opportunities in various areas of commerce, economics, and accounting to contribute to academia, policy-making, and industry advancements.

The diverse program offerings reflect the faculty's vision to foster academic excellence and professional competence.

#### **Faculty Members:**

The faculty is served by 13 (7 Professors, 1 Associate Professor, and 5 Assistant Professors) who are highly qualified (All PhDs) and experienced (minimum

experience of 14 years of teaching and research). Apart from teaching and research, the faculty members are regularly involved in participating in and organizing the Student Development Programs, Workshops, and seminars.

The faculty members are also contributing at the national level as members of interview boards & Screen Committees, (Guru Gashidas Central University, Bilaspur, GJUST, Hisar, CCS University Meerut, members of Boards of studies & Faculty boards of different universities (CCS University, Meerut, M.S. University Varadora, Jiwaji University Gwalior, Member coordinators of Peer Team Visit of NAAC, etc. Evaluators and paper setters of ICAI, Institute of Cost Accountants of India, ICSI, Life members of Indian Commerce Association, Indian Economics Association, Indian Accounting Association, and System Society of India. Faculty is also involved in evaluating the research proposals and Ph.D. thesis of reputed institutes.

## **Student Achievements/ Awards**

- Priyanshi Saraswat Qualified UGC NET Examination in December 2023.
- Nagina Qualified UGC NET Examination in December 2023.
- Kajol Verma was Awarded an ICSSR Research Fellowship in December 2023.
- Aakrati Agarwal was Awarded an ICSSR Research Fellowship in December 2023.
- Sakshi Chauhan Qualified UGC JRF Examination in December 2023.
- Swati Gautam qualified UGC NET Examination in December 2023.
- Mohini qualified UGC NET Examination in December 2023.

#### **Placements**

- Dr. Shivam Agnihotri was appointed Assistant Professor in the Department of Commerce, Shaheed Bhagat Singh College, Delhi (Delhi University).
- Dr. Akanksha Pathak joined GLA University Mathura, as an Assistant Professor in the Management Department.
- Dr. Shubhi Jain Pathak joined GLA University Mathura, as Assistant Professor in Commerce Department.
- Dr. Khushboo Jain joined Uttam Institute of Management Agra, as Assistant Professor.
- Prince Upadhyay joined as an International Purchase Executive in Retrotech Business Solutions Pvt. Ltd.
- Arpit Sharma joined as a Business Analyst in Light speed Logistics.
- Ishan Mittal joined as an Origination Associate in Marquee Equity.
- Sumit Chaudhary joined as a management trainee at Genpact.
- Nandini Parmar joined as Assistant manager at Axis Bank.
- Prashun Dwivedi joined as Marketing Data Analysis in Oswal Books.

# Department of Accountancy and Law

The Department is at the forefront of delivering high-quality, up-to-date education tailored to meet contemporary needs. By offering a range of work-based vocational courses such as Tax Planning and Management **and** Computer Applications in Accounting, the department ensures that its programs remain relevant and practical. The department's focus on innovative, value-based education, supported by a team of highly qualified and dedicated faculty, attracts meritorious students from across the country.

# **Key Highlights**:

## 1. Academic Excellence and Recognition:

The department's reputation facilitates student admissions to prestigious higher degree programs and professional courses at leading institutions nationally and internationally.

## 2. Employment Opportunities:

Graduates secure positions in government and reputed corporate organizations, often through campus placements before results are declared. Alumni have achieved distinguished positions across sectors such as government, banking, finance, academia, media, and business.

#### 3. Resources and Support:

Various forums and facilities enhance learning and professional growth, including:

- Institute-Industry Participation Cell (IIPC)
- DEI Alumni Placement Assistance Cell (DEIAPAC)
- Central Library and Faculty Library
- DEI Computer Centre
- USIC, Multimedia Centre, and INFLIBNET
- Access to databases like PROWESS and PROQUEST and software tools such as SPSS and STATA.

#### 4. Research Contributions:

The department emphasizes research and has achieved significant milestones. 49 PhDs are ongoing. During the last academic session, the department produced 7 Ph.Ds. Presently 6 research scholars are JRF awardees in the department.

#### **Facilities in the Department**

The Computer lab is well equipped. Students receive instruction and direction in computerized accounting, Tally, Excel, PowerPoints, Project preparation, and Data Management. This helps create an environment conducive to online education so that students can learn the concept practically.

# Faculty/Staff Achievements/ Awards During the Academic Session 2023-24

- Prof. Pramod Kumar, Prof. Praveen Saxena, and Prof. L. N. Koli were Member Coordinators of the Peer Team Visits of NAAC.
- Prof. Pravin Saxena received the Best Paper Award at the International Conference on Dimensions of Accounting organized by Dr Hari Singh Gour Vishwavidyalaya, Sagar in association with the Indian Accounting Association, 14-16 February, 2024.
- Prof Praveen Saxena acted as an expert for evaluation of proposal under minor and major research project at ICSSR New Delhi.
- Prof. Praveen Saxena was invited as a subject expert at the M.S. University Vadodara on the Board of Studies and Faculty Board.
- Prof. Praveen Saxena was invited as a Subject Expert to the screening committee for the promotion (CAS) at BRA University, Agra.
- Prof. Pravin Saxena acted as an Evaluator at the Screening committee formed by ICSSR, New Delhi for awarding the Major Research projects.
- Prof. Pramod Saxena was invited as a Subject Expert to the Screening Committee for the promotion (CAS) at BRA University, Agra.

## Workshops/Conferences/Seminars/Webinars Organized

• The 5<sup>th</sup> Multidisciplinary International Conference on Pre and Post – Doctoral Research in India was organized on 18 September, 2023.

# Workshops/Conferences/Seminars/Webinars/Faculty Development Programmes Attended

- Kumar, P. attended the 3-Days National Workshop on Learning Outcomes: Formulation, Mapping, and Assessment, organized by the Association of Indian University (AIU-DEI-AADC), at the Faculty of Education, from October 26-28, 2024
- Kumar, P. attended the International Conference on Advances in Management and Technology (ICAMT-2024) organized by Jaypee Business School, Noida from February 22-24, 2024, and presented a paper titled- Assessing the Effect of Banking Measures on Credit Risk in Regional Rural Banks in India.
- Kumar, P. attended a day International Multidisciplinary Conference organized by the International Council for Education Research and Training and PGDAV College (evening), University of Delhi on January 12, 2024, and presented a paper entitled Study on the Investment Behavior of working women investors in Agra City.
- Kumar, P. attended One Day International Multidisciplinary Conference organized by the International Council for Education Research and Training and PGDAV College (evening), University of Delhi on January 12, 2024, and presented a paper on-Credit Risk Disclosure Practices under Basel III: A Study of Private Sector Banks in India.

- Prof. L.N. Koli and Arti participated in the 74 All India Commerce Conference from 13 15 December 2023, organized by the Indian Commerce Association, and hosted by the University of Delhi, Delhi in association with knowledge partner O.P. Jindal Global University, Sonipat, Haryana.
- Prof. L.N. Koli and Arti (Research Scholar) participated in the 45th All India Accounting Conference & International Seminar on Accounting Education and Research from 9 - 10 December 2023, organized by the Department of Commerce, University of Kerela, Thiruvananthapuram & IAA Kerela Branch.
- Kumar, P. attended ICSSR Sponsored 6th International Conference of Multinational Enterprises and Sustainable Development Association organized by Department of Commerce, Delhi School of Economics, University of Delhi during November 29-30, 2023 and presented a paper Entitled-Bibliometric analysis of Environmental, Social and Governance: A Systematic review, research contributions and influence.
- Kumar, S. presented a paper entitled "An Empirical Analysis of Compliance level of Corporate Governance Disclosure Practices of Banks of India" in the Virtual International Conference on Sustainable Evolution of Indian Economy organized by PG & Research Department of Commerce on 30 August 2023.
- Kumar, R. presented a paper entitled "A Study on Risk and Return analysis of selected Nifty Small Cap Companies" in the Virtual International Conference on Sustainable Evolution of Indian Economy organized by PG & Research Department of Commerce on 30 August 2023.
- Kumar, R. presented a paper entitled "Stock Market Co- Integration: An investigation south SAARC Countries" in the Virtual International Conference on Sustainable Evolution of Indian Economy organized by PG & Research Department of Commerce on 30 August 2023.

- 1. Pramod, K. (2024). A comparative study of business responsibility and sustainability reporting practices: Evidence from Indian gas industry. International Journal for Research Trends and Innovation, 9(9).
- 2. Pramod, K. (2024). New developments in environmental, social, and governance (ESG): A corporate disclosure about India's top ESG scorer. International Journal for Multidisciplinary Research, 6(1).
- 3. Pramod, K. (2024). Impact of macroeconomic factors on initial public offer: An analytical study of investor's decision. International Journal for Multidisciplinary Research, 6(1).
- 4. Sharma, P. (2024). The ecosystem of start-ups: A bibliometric overview. IOSR Journal of Business and Management (IOSR-JBM).
- 5. Goyal, P., Kumar, S., Ayushman, & Arya, V. V. (2024). Value relevance and share price dynamics: An empirical analysis of Indian multinational corporations. The Indian Economics Journal, *72*(5).

- 6. Arti, & Koli, L. N. (2023). Impact of COVID-19 on financial performance of selected NSE-listed FMCG companies. Journal of Research and Development: A Multidisciplinary International Level, 15(1), ISSN: 2230-9578.
- 7. Goyal, P., & Kumar, S. (2023). An empirical analysis of compliance level of corporate governance disclosure practices of banks of India. *Humanities and Social Science Studies Journal*, *12*(2), ISSN: 2319-829X.
- 8. Kumar, R., & Verma, K. (2023). An analytical study of pre- and post-impact of COVID-19 on foreign direct investment equity inflow in India. International Journal of Research in Business Studies, 8(1), 91-104.
- 9. Ayushman, Verma, K., & Kumar, R. (2023). An analytical study of the impact of macroeconomic variables on the performance of the Indian stock market with special reference to NSE and BSE. International Journal of Banking, Risk, and Insurance, 11(1), 30-36.
- 10. Kumar, R., Ayushman, & Agarwal, R. (2023). COVID-19 lockdown announcement and stock market volatility of selected industries: An event study. Pacific Business Review International, *16*(4), 72-77.
- 11. Verma, K., & Kumar, R. (2023). A study on risk and return analysis of selected Nifty small cap companies. *Humanities and Social Science Studies, 12*(2), ISSN: 2319-829X.
- 12. Jaduvansh, & Kumar, R. (2023). A study of integration of BRICS stock market. International Journal of Creative Research Thoughts, 11, ISSN: 2320-2882.

# **Department of Applied Business Economics**

The Department of Applied Business Economics has consistently practiced the policy of continuously updating, particularly when the time comes to reinvent itself in the context of the changing global scenario.

The faculty members of the department have completed many research projects sanctioned by the University Grants Commission. The faculty members of the department continue to enrich and broaden their knowledge with regular contributions/participation in National and International conferences, Seminars, Workshops, etc. The Department focuses comprehensively on training and research that is an integral part of the core teaching activity.

Faculty members have a considerable number of books and research papers/ articles published in journals of national and international repute over some time. The research carried out in the department covers a wide variety of topics from the areas of Macro Economic Analysis, Economic Modelling, Banking, Insurance, Finance, International Business, and Econometrics. The members of the Department have been instrumental in organizing various conferences/ seminars/ workshops within the Department and outside at the university level. Presently the department has 42 research scholars out of which 7 JRF are JRF awardees. The department enjoys wide recognition which enables the graduating students to secure admission in the higher degree/ professional courses within the institute as well as other renowned universities/ institutions of the country and abroad. The students of the department have been toppers of ICSI, rank holders of ICAI, ICSI, and also qualified for civil services examinations. The alumni of the Department occupy distinguished positions in almost all spheres of society, government, bureaucracy, banking, insurance, finance, general management, civil services, academics, business, journalism, and mass media. Many of them are also successfully managing their own business / professional establishments in India and abroad.

#### Faculty/Staff Achievements/ Awards

- Prof. V.K. Gangal was invited as the Guest of Honor for the Valedictory Session of the National Seminar titled "Making India a Superpower in Amrit Kaal: Prospects and Challenges", sponsored by the Directorate of Higher Education, Uttar Pradesh, and hosted by Shri Rameshwerdas Agarwal Girls (PG) College, Hathras, on 29 March 2024.
- Prof. V.K. Gangal was invited as the Keynote Speaker at the International Conference on "Global Advancement in Compliance with G-20 Resolutions", organized by the Department of Commerce and Management, Career College (Autonomous), Bhopal, on 14-15 June 2024.
- Prof. V.K. Gangal was invited as a subject expert at the Guru Ghasidas Vishwavidyalaya Central University Bilaspur (CG) on the interview panel.
- Prof. V.K. Gangal was invited as a subject expert at the Guru Jambeshwer University of Science and Technology Hisar on the interview panel.
- Prof. V.K. Gangal was invited as a subject expert at the M.S. University Varodara on the interview panel.
- Prof. V.K. Gangal was invited as a subject expert at the M.S. University Varodara on the Board of Studies and Faculty Board.
- Prof. V.K. Gangal was invited as a subject expert at CCS University Meerut on the Board of Studies and Faculty Board.
- Prof. V.K. Gangal was invited as a subject expert to the screening committee for the promotion (CAS) at BRA University, Agra.
- Prof. V.K. Gangal was invited as a subject expert to the screening committee for the promotion (CAS) at CCS University, Meerut.
- Prof. V.K.Gangal is appointed by Sampann Utpadan India Limited, New Delhi as Independent Director.
- Prof. Swami P. Saxena acted as an evaluator at the screening committee formed by ICSSR, New Delhi for awarding the Major Research projects.
- Prof Vijay Gangal acted as resource person in 'Short Term Capacity Building Programme on Statistical Analysis: Theory and Practice (Applications of SPSS and R Software in Research) organized by AIU-DEI-AADC from November 28-December 05, 2024, at Dayalbagh Educational Institute, Dayalbagh Agra.

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- Prof Swami Prasad Saxena acted as resource person in 'Short Term Capacity Building Programme on Statistical Analysis: Theory and Practice (Applications of SPSS and R Software in Research) organized by AIU-DEI-AADC from November 28-December 05, 2024, at Dayalbagh Educational Institute, Dayalbagh Agra.
- Prof Swami Prasad Saxena acted as an expert for evaluation of proposal under minor and major research project for the session 2023-24 at ICSSR New Delhi
- Dr. Saurabh Mani acted as resource person in 'Short Term Capacity Building Programme on Statistical Analysis: Theory and Practice (Applications of SPSS and R Software in Research) organized by AIU-DEI-AADC from November 28-December 05, 2024, at Dayalbagh Educational Institute, Dayalbagh Agra.
- Prof. V.K. Gangal was invited as the Guest of Honor for the Valedictory Session of the National Seminar titled "Making India a Superpower in Amrit Kaal: Prospects and Challenges", sponsored by the Directorate of Higher Education, Uttar Pradesh, and hosted by Shri Rameshwerdas Agarwal Girls (PG) College, Hathras, on 29 March, 2024.
- Prof. V.K. Gangal was invited as the Keynote Speaker at the International Conference on "Global Advancement in Compliance with G-20 Resolutions", organized by the Department of Commerce and Management, Career College (Autonomous), Bhopal, on 14-15 June, 2024.
- Prof. Shalini Dubey received the Best Paper Award for her work on E-Commerce in India: Experiments & Opportunities, conferred by the Koshambi Foundation, India, and the Department of History & Culture, Dr. Bhim Rao Ambedkar University, Agra, in December 2023.
- Prof. Shalini Dubey was awarded the Best Environmentalist Award by the Koshambi Foundation, India, and the Department of History & Culture, Dr. Bhim Rao Ambedkar University, Agra, in December 2023.
- Dr. Bhawna Johri was invited as a Resource Person at the One-Day National Seminar on Entrepreneurship and Innovation, organized by the PG Department & Research Centre in Commerce, Rajapalayam Rajus' College, Rajapalayam, on 25 April 2024.

#### Workshops/Conferences/Seminars/Webinars Organized

• A two-day workshop was organized in collaboration with the Indian Council of Social Science Research (ICSSR), New Delhi on "Role of Digitalization in MSME Creation and Growth" from 12 to 13 April, 2024.

#### Workshops/Conferences/Seminars/Webinars/Faculty Development Programme Attended

• Prof. Shalini Dubey presented a paper entitled "Bringing "Rag Pickers" into the Mainstream: In Special Reference to Agra City" at the national conference on Business Transformation: Challenges and Opportunities for Sustainable

Growth on 2023, 04-Nov. organized by Shri Ram College of Commerce, University of Delhi & sponsored by ICSSR.

- Prof. Shalini Dubey presented a paper entitled "Impact of DEI's frugal and flexible approach (Jugaad) on employment and student entrepreneurship" in the 45<sup>th</sup> (Inter) National System Conference on Global Sustainability through Lacto-Vegetarian Agroecology Systems from 26 to 29 September, 2023 organized by DEI.
- Prof. Shalini Dubey presented a paper entitled "Assessing the sustainability awareness of students in DEI and a model to increase the student awareness" in 45<sup>th</sup> (Inter) National System Conference on Global Sustainability through Lacto-Vegetarian Agroecology Systems from 26 to 29 September, 2023 organized by DEI.
- Prof. Swami Prasad Saxena presented a paper entitled "Trend and determinants of dividend policy of Indian energy sector firms: A panel data analysis" at the International Conference on Financial Markets & Corporate Finance in July 2024 organized by the Indian Institute of Technology (ISM), Dhanbad.
- Prof. Swami Prasad Saxena presented a paper entitled "Dynamics of women start-ups: A study of its roadblocks" in the International Conference on Creating and Managing Responsible Organisations - An Emerging Economy Perspective in October 2023 organized by Management Development Institute, Gurgaon
- Prof. Swami Prasad Saxena presented a paper entitled "A study on the impact of climate change on wheat yield in Indo-Gangetic plains (IGP) region of India with special reference to Meerut district" in International Conference in October 2023 organized by GL Bajaj Institute of Technology and California State University, USA.
- Prof. Swami Prasad Saxena presented a paper entitled "A study on financial literacy and financial behavior of people in Agra – The city of Taj" in the International Conference on Multidisciplinary Concepts in Management in July, 2023 organized by GL Bajaj Institute of Technology and California State University, USA.
- Dr. Bhawna Johri attended a 5-day online Faculty Development Program (FDP) on the theme "Inculcating Universal Human Values in Technical Education", organized by the All India Council for Technical Education (AICTE) from 2-6 October, 2023.

#### **Publications**

1. Gangal, V. K., & Saraswat, S. (2024). An analysis of COVID-19 pandemic management policies: Effectiveness and challenges in Agra district. Educational Administration Theory and Practice.

- 2. Gangal, V. K., & Yadav, A. (2024). Adoption of online payment services based on perceived risk and customer awareness. Educational Administration Theory and Practice.
- 3. Gangal, V. K., & Pathak, A. (2023). Advancements and challenges in electric vehicle adoption in India. Journal of Science & Technology by The Science Brigade (Publishing) Group, 4(4). ISSN: 2582-692.
- Kumar, A., & Saxena, S. P. (2024). An assessment of the impact of climate on wheat yield in the Indo-Gangetic plain region of India: A panel data analysis. Journal of Agrometeorology, 26(2). https://doi.org/10.54386/ jam.v26i2.2535
- 5. Agrawal, P., & Saxena, S. P. (2024). Impact of ECB regulations on ECB inflows in India. IPE Journal of Management, *14*(2). ICI,
- 6. Kumar, A., & Saxena, S. P. (2024). Econometric analysis of the impact of climate change on wheat yield in Indo-Gangetic plains (IGP) of India: A study of Meerut district. Arthshastra: Indian Journal of Economics & Research, *13*(1).
- 7. Mani, S. (2024). Embracing or evading? A two-dimensional scrutiny of deglobalization's opportunity and threats. Empirical Economics Letters. ABDC, EconLit.
- 8. Kulshreshtha, P., Swarup, K. S., & Saxena, S. P. (2023). A study on assessing the forecasting performance of ARIMA and regime switching model for AUM of various types of mutual funds in India. Abhigyan: Management Journal, 41(2).
- 9. Saxena, S. P., & Kumar, A. (2023). Causality between carbon dioxide emission and agriculture production: Evidence from India. Asian Journal of Economics and Finance, 5(2).
- 10. Agrawal, P., & Saxena, S. P. (2023). Role of socio-physical infrastructure in regional economic growth: A case study with special reference to education and healthcare sector of Uttar Pradesh. Journal of Economics, Finance and Management Studies, 6(8).
- 11. Mani, S. (2023). A comparative study of Indian states: With special reference to achievement of Sustainable Development Goal of Zero Hunger. Reimagining the Future of Business: The Challenges of Leadership, Digitalization and Sustainability.
- 12. Johri, B. (2023). Attrition management: A challenge in the Agra hotels. Journal of Contemporary Issues in Business and Government, 29(4). ABDC. ISSN: 1323-6903.
- 13. Johri, B. (2023). Resurgence of millets as a health food. Journal of European Economic Letters, *13*(3). ABDC. ISSN: 2323-5233.

- 14. Johri, B. (2023). Overview of the Ayushman Bharat (PMJAY) in the Mathura region. International Journal for Multidisciplinary Research, 5(4). ISSN: 2582-2160(E).
- 15. Johri, B. (2023). Impact of social entrepreneurship on economic development of India. International Journal of Social Impact, 8(3). ISSN: 2455-670X.
- 16. Johri, B. (2023). Role of NEP 2020 in India. TIJER-International Research Journal, 10(8). ISSN: 2349-9249.
- 17. Johri, B. (2023). The hotel sector as an active supporter of India's economic reforms. IOSR Journal of Economics and Finance, 14(5), Ser. 3. ISSN: 2321-5933.
- Johri, B. (2023). Impact of environment on sustainable tourism. Proceedings of National Seminar on Homestay Tourism & Sustainable Development in the Indian Himalayan Region: Prospect & Challenges. ISBN: 978-81-19907-94-6.
- 19. Johri, B. (2023). Impact of G20 on Indian economy. TIJER-International Research Journal, 10(10). ISSN: 2349-9249.
- Satsangi, A. (2023). An analytical study of central government interventions related to industry, innovation, and infrastructure. Multidisciplinary Research in India: Emerging Issues and Challenges. ISBN: 978-93-90253-83-8.
- 21. Satsangi, A. (2023). A comparative study on financial performance of SBI and HDFC Bank based on CAMEL model. Multidisciplinary Research in India: Emerging Issues and Challenges. ISBN: 978-93-90253-83-8.

#### **Book Chapters**

- Mani, Saurabh. Multi-disciplinary Research in India: An Emerging Issue and Challenges. Multidisciplinary Research in India: An Emerging Issue and Challenges. March 2023. (ISBN No. 978-93-90253-83-8)
- Johri, Bhawna. Role of Ethics in Academic Writing. Edited Book, Multidisciplinary Red'Shine Publication, London. 2023. ISBN: 978-1-312-20029-6.
- Satsangi, Anisha. "Multidisciplinary Research in India: An emerging issues and challenges" first edition 2023, ISBN: 978-93-90253-83-8.

# Faculty of Education

With the merging of the Departments of Education of the erstwhile Women's Training College and the REI Degree College, the Faculty of Education came into existence in the year 1981 as one of the Faculties of DEI. The faculty offers UG/PG/MPhil/PhD as well as Diploma Programme. The faculty aims at preparing dedicated, skilled, knowledgeable and creative quality teachers possessing high standards of professional ethics to stand up to the evolving demands of the educational system and society at large. The faculty also aims at preparing quality teacher educators who perform complex duties ranging from effective classroom teaching to moulding the value system of pupils and undertaking administrative responsibilities with sincerity. It thus prepares teacher educators and researchers to play a leading role in their profession. The faculty has been granted the status of School of Education under Pandit Madan Mohan Malviya National Mission on Teachers and Teaching, MHRD (GoI) in Feb 2019. The faculty has two departments Dept. of Foundations of Education and Dept. of Pedagogical Sciences. Dept. of Foundations of Education aims at preparing teachers with strong psychological, philosophical and sociological basis who can contribute as Nation Builders in the preparation of Strong, dedicated, young and intellectual society. This department aims for the holistic development of teacher educators who can bring up a major change in the society as a role model. The department of Pedagogical sciences considers it a sacred duty to maintain standards of academic excellence, to provide appropriate programmes, services and technology in consonance with the lofty aims of the educational policy of the Institute and serve as a centre of excellence for lifelong learning.

## **Thrust Areas of Research**

- Artificial intelligence in Education
- Inclusive Education
- Performing Arts
- Gamification in Education
- Art integration in Education
- Brain based learning
- Emerging technology in Education
- Cognition Learning
- Consciousness
- Neuropsychological

## **New Facilities Created in Department**

The following Laboratories are being used for teaching -learning practice and training:

- 1. Curriculum Lab
- 2. Visual Arts Studio
- 3. Performing Arts Studio

- 4. Music Room
- 5. Psychology Lab
- 6. Yoga Resource Centre
- 7. Conference Room
- 8. Auditorium

#### **Projects Sanctioned**

- Two Faculty Development Programs were sanctioned to the Faculty of Education by the Association of Indian Universities (AIU) and Academic and Administrative Development Centres (AADC).
- Prof. Lajwanti has been awarded a short-term empirical research project entitled आदिवासी जनजाति क्षेत्रों में आत्मनिर्भर भारत और कौशल विकास योजनाओं और बढावा देने हेतु राष्ट्रीय शिक्षा नीति 2020 में व्यावसायिक पाठ्यक्रमों और नवीन शिक्षण पद्धतियों का क्रियान्वयन, by the Indian Council of Social Science Research (ICSSR) for a duration of six months.

## Faculty/Staff Achievements/ Awards

- Dr. Jyotika Kharbanda, Assistant Professor, Faculty of Education, was invited as a judge at the Mandal Level Science Sangoshthi, organized by the State Institute of Science Education, Uttar Pradesh, at MD Jain Inter College, Agra, on August 22, 2023.
- Prof. Nandita Satsangee and Prof. N.P.S. Chandel were invited as Guests of Honour at the inaugural session of the National Seminar sponsored by the Indian Council of Social Science Research (ICSSR), New Delhi. The seminar, titled "NEP 2020 - A Guiding Lamp for Making India World Leader," was held on November 25, 2023, at Shri Rameshwar Das Agrawal Girls' (PG) College, Hathras, Uttar Pradesh.
- Prof. Sona Ahuja presented "Implementation of NEP at Dayalbagh Educational Institute (DEI) Board Schools" at the 52<sup>nd</sup> Annual Conference organized by the Council of Boards of School Education in India from November 23-25, 2023. She was also appointed as an expert on the Board of Studies in Education, Educational Administration, and Physical Education at The Maharaja Sayajirao University of Baroda, Vadodara, for three years, effective September 1, 2023.
- Dr. Neha Jain and Dr. Shweta Agarwal acted as resource persons in the District Level Skill Enhancement Programme "UDAY," a 15-day program organized at the Block Resource Centre, Barauli Aheer, Agra. Dr. Jain participated from November 16-24, 2023, while Dr. Agarwal participated from November 2-11, 2023.
- Dr. Jyotika Kharbanda and Dr. Shweta Agarwal served as members of the jury at the 31<sup>st</sup> National Children Science Congress, held at Kendriya Vidyalaya No. 1, Air Force Station, Agra, from November 23 - 25, 2023.

- Prof. Nandita Satsangee and Prof. Savita Srivastava were invited as judges for the All-Agra interschool competitions organized by APSA on October 19, 2023.
- Prof. Savita Srivastava was deputed as a Visiting Team Member by the National Council for Teacher Education (NCTE) for virtual inspections of B.Ed. colleges in India for the approval of integrated colleges during July, September, October, and November 2023.
- Prof. Meenu Singh is an editorial member of the EDWIN Group of Journals.
- Prof. N.P.S. Chandel acted as a resource person at a one-day workshop on research methodology, organized by Shri Rameshwar Dayal Agrawal Girls' Degree College, Hathras, Uttar Pradesh, on October 17, 2023.
- Prof. N.P.S. Chandel was invited as an external expert for the Board of Studies meeting of the Faculty of Education at Banasthali Vidyapeeth, Tonk, Rajasthan, held online on October 22, 2023.
- Prof. N.P.S. Chandel delivered the keynote address at the National Seminar on "NEP 2020: Transformation of Education," held at HR Patel English Medium B.Ed. College, Kadi Sarva Vishwavidyalaya, Gandhinagar, Gujarat, on October 27, 2023.
- Prof. N.P.S. Chandel acted as chairperson at the Multidisciplinary National Conference on "Contemporary Issues in Commerce, Management, Science & Information Technology and Education (MSITEC-2023)," organized by Agra Public Group of Institutions on November 3–4, 2023.
- Prof. Savita Srivastava was invited as the Chief Guest and Resource Person for the valedictory ceremony of the "Capacity Building Programme for Teachers" at the Education Department, Bundelkhand University, Jhansi, on January 27, 2024.
- Prof. N.P.S. Chandel chaired a session at the National Conference on "Perspectives and Practices in Vocational Education and Training," organized by Pandit Sundarlal Sharma Central Institute of Vocational Education, a constituent unit of NCERT, Bhopal, Madhya Pradesh, on February 1–2, 2024.
- Prof. Nandita Satsangee was invited as Guest of Honour at the inaugural session of the National Seminar sponsored by ICSSR, New Delhi, titled "NEP 2020 - A Guiding Lamp for Making India World Leader," on November 25, 2023, at SRDA Girls' (PG) College, Hathras.
- Dr. Jyotika Kharbanda was invited as a judge at Mandal Level Science Sangoshthi at M.D. Jain Inter College, Agra on 22 August 2023 which was organized by State Institute of Science Education, Uttar Pradesh.
- Dr. Neha Jain served as co-chairperson at the Multidisciplinary National Conference on "Contemporary Issues in Commerce, Management, Science & Information Technology and Education (MSITEC-2023)," organized by Agra Public Group of Institutions on November 3–4, 2023.

- Prof. Sona Ahuja was invited as a resource person to conduct a session on "A Framework for Grounded Theory Research" during the Qualitative Research Training Program on "Qualitative Research Paradigm in Social Science," organized by Malaviya Mission Teacher Training Centre, The Maharaja Sayajirao University of Baroda, Vadodara, on April 24, 2024.
- Dr. Sona Dixit participated as a panelist in the National Conference on "Bhartiya Sant Mat: Darshan Evam Samajik Upyogyata," organized by Dayalbagh Educational Institute and the Indian Philosophical Research Council, New Delhi, on April 12–13, 2024.
- Dr. Bajarang Bhushan participated as a resource person for a tool development workshop for research work at DIET, Agra, on January 5–6, 2024.

## Student's Achievements/ Awards

- Ms. Shavan Kumari was granted TA under the ICSSR Travel Grant Scheme for attending a conference in Thailand on 20-23 December 2024.
- Mrs. Jaya Satsangi and Mrs. Varsha Khemani were awarded Doctoral Scholarship of ICSSR in December 2023.
- Mrs Jaya Satsangi presented Paper on "Sustainability of Ideas" in a National Seminar organized by ICSSR at Bundelkhand University, Jhansi on July 2023.
- 107 students cleared CTET and 4 Cleared UP TET.
- 19 students cleared NET exam.

## Workshops/Conferences/Seminars/Webinars Organized

- A two-day workshop on English language teaching at primary (preparatory level) was organized by School of Education, Faculty of Education, DEI, Agra on 4 6 September, 2023.
- A One-day Workshop on "Development of Resources for Science Teaching" was organized in the School of Education, Faculty of Education, under Pandit Madan Mohan Malviya National Mission for Teachers and Teaching, Ministry of Education, Government of India on 22 September, 2023.
- The Pupil Teachers of Faculty of Education on Internship at the Radhasoami Adivasi Senior Secondary School, Rajaborari, Dist. Harda, M.P. jointly celebrated the Innovation, Quality, and Valuation Day with the students on the eve of Deepawali, 11 November, 2023.
- A Five-day Scouting and Guiding camp for B.Ed., D.El.Ed and PSTE (Pre-Service Teacher Education) Teacher Trainees was organized from December 14-18, 2023.
- A Three-Day Workshop on Competency-based Teaching and Learning at the Primary level was organized from 4 to 6 January 2024 in collaboration with District Institute of Education & Training (DIET), Agra. The Workshop was organized for DEL.Ed. trainees and the in-service school teachers of DEI

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schools. Dr. Pragya Sharma from DIET, Agra, Mr. Satyapal Singh, Ms. Priyanka Gautam and Ms. Pooja Sharma Master Trainers from Poorva Madhyamic Vidyalaya, Kagarol, Agra, Composite Girls' School, Etmadpur, Agra and Primary School, Khedia-1, Agra respectively, acted as the Resource Persons in the Workshop. They oriented the participants with the format of competency-based lesson plans and activities. Hands-on experiences of

competency-based activities in Languages, Maths, and Environmental Studies subjects were provided to the participants. The participants were also given exposure to various school records and Online and Offline Assessment tools which they can use in making their teaching effective.



- The Placement Cell, Faculty of Education organized a one-day workshop on Resume Building and Interview skills on January 9, 2024. The resource persons; Dr Poonam Prakash (Principal, Primary School), Mrs. Renu Kapoor (Former Headmistress, Sumit Rahul School and Mrs Rajkumari Suresh, (Teacher volunteer and ICT facilitator) mentored the students in interactive sessions on resume building and interview skills.
- A Three-day workshop cum Hackathon was organized by the School of Education, DEI Agra on 12-14 March, 2024.
- A One-Day National Workshop on 'Harmonizing Expression: Foundations of Classical Dance for Effective Communication in Education' was organized by the Faculty of Education, under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) on April 8, 2024.
- A 10 day Faculty Development Programme on "Statistics in Education and Social Sciences Research" under AIU, DEI from 22 31 May, 2024.

#### Workshops/Conferences/Seminars/Webinars Attended

- Dr. Sona Dixit completed 8 days online Faculty Development Program (FDP) on 'Research Methodology using ChatGPT and AI tools,' organised by PG Department of Computer Applications, IQAC AND LUC MRC, Marian College, Kuttikkanam in association with The Kerala State Higher Education Council (KSHEC) from 21 29, September 2023. She also completed a 5-day online FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) from 2 6 October 2023 and a 7 day online Faculty Development Program on ,'OBE and Essential AI Tools for Teachers 'organised by IQAC Cell, St. Thomas College, Palai in association with The Kerala State Higher Education Council (KSHEC) from 10-16 January, 2024.
- Dr. Sona Dixit participated in "National Level Online Seminar on "Embracing the Integrated Teacher Education Programme (ITEP) conducted by Progrezz Academic Training & Research Institute, Tripur, Tamil Nadu on 5 May, 2024.

- Dr. Sona Dixit presented paper entitled," Imbibing Culture Through Place-Based Pedagogy: A Study of NEP 2020 in Relation to the use of Pedagogy in Classrooms" in ICSSR National Seminar on Indian Ideational Rhythms as Sprouts of Universal Culture, Peace and Happiness, organised by Institute of Education, Bundelkhand University, Jhansi on 25-26 July, 2023.
- Dr. Neha Jain completed Refresher course on Teacher Education organized by AMU, Aligarh from 23 June- 08 July, 2023.
- Ms Mugdha Sharma and Prof Nandita Satsangee presented a paper titled 'Trends in Open and Distance Learning Research: A Content Analysis of Theses on Shodhganga' in International Conference on Perspective and Innovations in Open and Distance Learning organised from 1 - 3 April, 2024 by National Institute of Open Schooling in collaboration with CEMCA.
- Dr. Priti Sharma successfully completed 8 days national level online faculty development program on research methodology using ChatGpt and AI tools PG Department of computer application, The Internal Quality Assurance Cell (IQAC) and Lincoln University College Marian Research Centre (LUC MRC) of Marian College Kuttikanam (Autonomous) in association with The Kerala State Higher Education Council (KSHEC), from 21 29 September, 2023.
- Dr. Priti Sharma presented a paper on the topic "A Study on the Causes of Juvenile Delinquency in Children and its Prevention in India" in the 5<sup>th</sup> Multidisciplinary National Conference on "Pre and Post-Doctoral Research in India" organized by Dayalbagh Educational Institute, Dayalbagh, Agra, U.P. India,18 September, 2023.
- Dr. Priti Sharma Participated in the Eight days short-term Capacity Building Programme on Statistical Analysis: Theory and Practice Organized by Dayalbagh Educational Institute, Agra, association of Indian Universities-Dayalbagh Educational Institute- Academic & Administrative Development Centre (AIU-DEI-AADC), November 28, to December 05, 2023.
- Dr. Nahar Singh attended Faculty Induction Programme from 8 Sep- 13 Oct. 2023. He also attended 8 Days Orientation Programme from 21 -31, October. 2023.
- Dr. Manu Sharma attended 10 Days Self-paced (MOOC) short-term course on mental health & wellbeing from 20-30 December, 2023.
- Prof Nandita Satsangee, Dr Neetu Singh, Dr. Pallavi Dubey, Dr. Jyotika Kharbanda, Dr. Parul Khanna, Dr. Pooja Verma, Ms. R Jeyam and Ms. Mugdha Sharma participated in Faculty Development Program (FDP) on NEP Orientation and Sensitization from May 23 – 31, 2024 organized by UGC-MMTTC, University of Hyderabad.
- Shivansh Kulshrestha, Student of B.Ed. 2<sup>nd</sup> year, participated in a 5-day Rachana Winter School organized by the Centre for Excellence in Teacher Education (CETE), Tata Institute of Social Sciences (TISS), from 1-5 November, 2023.

#### **Publications**

- 1. Neeta Satsangi, Shavanam Kumari, Lajwanti (2023). The Effect of Yoga and Meditation on Energy Level of Upper Primary and Secondary Level Students. International Journal of Yoga, Physiotherapy and Physical Education. 8(2), 23-27.
- 2. Shavanam Kumari and Lajwanti (2023), Positive Attitude of Students with Disabilities Towards Vocational Courses in Inclusive Education in the Perspective of Sustainable Development in the Asia Pacific Winter International Conference Proceedings.
- 3. Sona Ahuja (2023) Implementation of NEP at Dayalbagh Educational Institute (DEI) Board Schools, Proceedings of 52<sup>nd</sup> COBSE (Council of Boards of School Education in India) Annual Conference Sahodaya, 94-102.
- 4. Dixit, S & Sharma, R, (2024) ऑनलाइन अधिगम के संदर्भ में विश्वविद्यालय स्तर के विद्यार्थियों की संतुष्टि का अध्ययन, International Journal for Research in Education, 13 (5).
- 5. Sant Pyari Saxena, Sona Ahuja, Shivani Vashishtha (2023). Effect of 4 Week Mindfulness on n-Back Task Performance and Mathematical Performance of Adolescents, Shodh Samagam, 6(4), 1513-1518.
- 6. Diksha Yadav, Sona Ahuja (2023) A Systematic Review of Meditation and Physical Activity based Interventions in Schools, AMOGHVARTA, 3(1), 276-286.
- 7. Anshula Dua and Neha Jain (2023). The Role of Artificial Intelligence in Shaping the Contemporary World: Situating Research in the AI Era, Paripex Indian Journal of Research, 12(11).
- 8. Khanna, P. & Kharbanda, J. (2023). Music Integration: A Pedagogical Tool for Accelerating Learning in Students. Zeichen Journal, 9(7).
- Upadhyay, M., Verma, A. (2023). A Comparative Study of Academic Anxiety of High School Students Attending and not attending Coaching Institutes. North Asian International Research Journal of Social Science & Humanities, 9(9), 1-8.
- 10. Bhardwaj, R., Verma, A. (2023). A Comparative Study of the Attitude of Government and Private School Teachers towards Differently Abled Students at Middle School. North Asian International Research Journal of Social Science and Humanities, 9(9), 1-8.
- 11. Thakwani, M., Verma, A. (2023). WebQuest: Learning and Leading with Technology, Atishay Kalit: A Bilingual Research Journal of Fine Arts, Culture and Humanities. 10(18), 373-383.
- 12. Nahar Singh (2023). Effect of Brain-based Learning on the Academic Achievement and Metacognition of Elementary Level Students, CHETANA, 8(4), 34-36.

- 13. Shweta Agarwal (2023). Constructivism A Effective Teaching Approach Current Trends in Humanities & Commerce, pp. 24-31.
- 14. Kharbanda, J. & Khanna, P. (2023). NEP 2020 and Teacher Education. National Education Policy 2020: Transformational Reforms in Education,1
- 15. Pinky Kumari and Prof. Meenu Singh (2023). Transgender Challenges and Constitutional Solutions, Asian Press Books, Kolkata.

## **Placements**

40 students were placed in schools through the Placement Cell of the Faculty.

S.NO	Name of the School	No. of students placed
1	Stuti Global Academy, Firozabad	15
2	Shivalik Cambridge College, Agra	03
3	DPS International, Shikohabad	07
4	Sharda World School, Kitham, Agra	03
5	Kids' Corner School, Firozabad	03
6	Boston Public School, Agra	01
7	Krishna Public School, Agra	01
8	Gayatri Public School, Agra	02
9	Sunflower Public School, Agra	02
10	Baluni Public School, Agra	03

Placements other than teaching.

- CRPF (Head Constable) -01
- Railways -01
- Institute of Banking Personnel (IBPS) -01 (Assistant Manager Central Bank of India)
- Sub inspector-01
- Staff Selection Commission (SSC)-01
- U P Police-01; MP Police-01
- GATE-01
- Gram Panchayat Exam-01

## Faculty of Engineering

The Faculty of Engineering at Dayalbagh Educational Institute, established in 1950 as Dayalbagh Engineering College, was founded to address India's growing need for skilled technical professionals. It became part of Dayalbagh Educational Institute (Deemed University) in 1981 and now encompasses five departments: Agricultural Engineering, Civil Engineering, Electrical Engineering, Footwear Technology, and Mechanical Engineering. These departments offer a range of undergraduate, postgraduate, and doctoral programs designed to prepare students for industry and research.

At the undergraduate level, the Faculty provides a comprehensive Full-Time, Four-Year Bachelor of Technology (B.Tech.) program with specializations in Civil Engineering, Electrical Engineering, Footwear Technology, Mechanical Engineering, and Agricultural Engineering, along with a Full-Time, Five-Year Bachelor of Architecture (B.Arch.) program. There are also integrated dual degree options, such as the B.Com/BBA in Footwear Technology and a Part-Time Bachelor of Electrical Engineering to cater to working professionals.

For postgraduate students, the Faculty offers a Full-Time Master of Technology (M.Tech.) in Engineering Systems and a specialization in Computer Science. A Part-Time M.Tech. in Engineering Systems can accommodate flexible learning needs. Doctoral programs include both Full-Time and Part-Time Ph.D. options, along with an Integrated B.Tech., M.Tech., and Ph.D. track for students aiming to pursue advanced research from the outset.

## Department of Agricultural Engineering

The Faculty of Engineering has started B.Tech. in Agricultural Engineering from the session 2020-21 with due approval from AICTE. Since then, the Agricultural Engineering has become one of the constituent departments in the Faculty of Engineering.

The thrust areas of Research of the Department are Farm Machinery, Power, Renewable Energy, Irrigation and Conservation Engineering, Dairy and Food Processing and applications of modern technological innovations like IoT, Telematics, Digital Manufacturing, Greenhouse Controls and AI etc.

## **Facilities in the Department**

An agricultural engineering lab has been established in the Department which includes three different labs. The facilities and activities performed in the labs are mentioned below.

## 1. Soil and water lab:

- Soil testing: pH, EC & Soil nutrients (10 no.), Lime requirement, & Gypsum requirement
- Water testing: pH, TDS, Salinity
- Characterization of soil: Soil texture, Bulk density, Specific gravity, & Field capacity, Water holding capacity, & Soil permeability
- Calibration of tensiometer for irrigation scheduling
- Open channel flow measurement with current meter
- Monitoring water stages in open channels
- Monitoring fluctuations in ground water table
- Study of plant morphology-Leaf area index, chlorophyll, agronomic details
- Energy auditing of polyhouse
- Solar light intensity with lux meter

## 2. Post-harvest Engineering and Dairy lab:

- Digital characterization of food grains / seeds
- Measurement of grain moisture content
- Performance evaluation of ecofriendly grain dryers

Morphology of cereals, pulses and oil seeds: Particle size & Fineness modulus, Equivalent diameter, True Density & Bulk density, Porosity & Angle of repose

- Cooking quality of rice grains
- Study of dairy equipment: Pasteurizers, Homogenizers, Sterilizers, Hermetic cream separator

## 3. Farm Machinery lab:

- Design and development of hand tools for small and marginal farmers
- Performance evaluation of farm equipment: Disc harrow, Cultivator, Rotavator, Leveler, Potato planter & digger, Paddy reaper, Seed-cum fertilizer drill, Groundnut decorticator, etc.
- Calibration and evaluation of plant protection equipment: Mini power weeder, Knapsack Sprayer etc.

## New Facilities Created in the Department during the year

Three labs have been established in the Department. The available facilities in the department are as follows:

- 1. Soil and water lab.
- 2. Post-harvest Engineering and Dairy lab.
- 3. Farm Machinery, Energy and IOT lab.

- 4. Student run soil testing facility for determining 14 soil parameters
- 5. Development of Agricultural Farm employing agroecological principles for soil enrichment.
- 6. Development of portable biochar kiln to convert agricultural waste into biochar.
- 7. Roof top rainwater harvesting system for recharging groundwater and to facilitate irrigation in agriculture farm.

## **Projects Sanctioned During the year**

1. Project entitled "Filtration of Sewage Water and Production of Electricity by Micro Hydropower Device" under UP CST Engineering Students Grant Scheme was sanctioned to the department.

## **Ongoing Research Projects**

- 1. Development of an advanced soil testing kit for comprehensive analysis of soil conditions.
- 2. Design and development of a cost-effective grain dryer with automatic moisture content detection for small scale applications.
- 3. Design and implementation of an integrated smart sprayer system to revolutionize traditional crop spraying methodologies.
- 4. To detect the changes in vegetation area and water area using NDVI and NDWI for the year 2013, 2018 and 2023 through remote sensing and GIS of Poiyaghat watershed.
- 5. Design and Fabrication of an energy efficient low-cost biochar kiln.
- 6. Comprehensive Analysis and Future Predictions of Drought Events in South Western Semi-arid Agro Climatic Zone of Uttar Pradesh, India.
- 7. Web Based Plant Disease Detection and Nutrient Management System Using Deep Learning Techniques to Support Sustainable Farming Practices in India.
- 8. Impacts of ENSO (El-Nino- Southern Oscillation) on Drought and Flood Events in India.
- 9. Design and development of a Robotic Pesticide Sprayer.
- 10. Design, Analysis and Implementation of a solar dryer.
- 11. Effect of physical and chemical properties on infiltration characteristics of soil.
- 12. Effect of stream size and bed slope on irrigation efficiencies with intermittent furrow irrigation in sandy loam soil.
- 13. Design and development of manual operated reaper.
- 14. VARDAN: Versatile Autonomous Robotic Device for Agricultural Nourishment
- 15. Performance evaluation of a grain dryer with combinations of desiccant dehumidifier, evacuated tube pipes and open dryer.

## **Patents Applied**

1. Mr. Shyamedndra Singh, Ms. Vartika Chaturvedi and Dr. Anjitha Krishna P. R., have applied for design patent for "Portable Compact Vertical Hydroponic System" to Intellectual Property India.

## Faculty/Staff Achievements/ Awards/

• Dr. Priyanka Gunjan was awarded Best oral presentation for outstanding presentation (online) of research work entitled "Applicability of Various Cn Conversion Methods in the Runoff Estimation Using Scs-Cn Approach in a Watershed of Mahanadi River Basin, India", held at KVK, Piprakothi, East Champaran, Bihar, organized by Dr. Rajendra Prasad Central Agricultural University, Pusa, Samastipur, Bihar, India, on 11 February, 2024.

#### **Students Achievements/ Awards**

 Students have performed remarkably in Gate 2024 and ICAR-JRF 2024 and have been admitted to prestigious institutions such as IITs, NITs, IARI, New Delhi GBPUAT, Pantnagar, PAU, Ludhiana and others for higher studies. List of students with their rank are mentioned below.

The following students qualified

#### **GATE 2024**

S.No.	Student's Name	GATE 2024 RANK
1.	Ankush Upadhyay	5
2.	Anil Baghel	45
3.	Paras Kumar Koyra	201
4.	Aditya Dubey	175
5.	Deeksha Singh Pushkar	621

#### **ICAR-JRF 2024**

S.No.	Student's Name	GATE 2024 RANK
1.	Divyanshu Singh	11
2.	Mayank Upadhyay	112
3.	Hardek Kulshreshtha	153
4.	Karan Verma	144
5.	Himanshi Kuashik	286
6.	Jitendra	465
7.	Ravi Solanki	474
8.	Guru Mehar Gupta	545

- Divyanshu (2001977) and Adarsh Kumar (2001961) secured 5<sup>th</sup> and 11<sup>th</sup> rank in U.P. CATET Exam, respectively.
- A group of 4<sup>th</sup> year students in 2024 received research grant from Council of Science and Technology, U.P. (CST, U.P.).

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 Many students from 2<sup>nd</sup>, 3<sup>rd</sup> and final year participated in International Conference on "Advanced Agricultural Technologies for Self-Reliant Farmers and Developed India", held at KVK, Piprakothi, East Champaran, Bihar, organized by Dr. Rajendra Prasad Central Agricultural University, Pusa, Samastipur, Bihar, India, on 11February, 2024.

## Workshops/Conferences/Seminars/Webinars Attended

• Dr. Priyanka Gunjan participated as an Organizing Secretary in International Conference on "Advanced Agricultural Technologies for Self-Reliant Farmers and Developed India", held at KVK, Piprakothi, East Champaran, Bihar, orgainized by Dr. Rajendra Prasad Central Agricultural University, Pusa, Samastipur, Bihar, India, on 11February, 2024.

## **Publications**

- Dubey M, Mishra A and Singh R (2024) Climate Change Effect on Optimal Nrecommendation and Yield of Rice and Wheat Crop, Theoretical and Applied Climatology.
- Shaheemath Suhara, K. K., Anu Varghese, Anjali C Sunny., Anjitha Krishna, P. R., (2023). Erosivity factor of revised universal soil loss equation (RUSLE)-A systematized review. Current World Environment, 18(1): 1-18.
- Blessy, V. A., Shaheemath Suhara, K. K., Anu Varghese, Namitha, M. R., Anjitha Krishna, P. R., Ardra Wilson and Sreeja, K., (2024). Weather Intelligence for Climate Resilient Agriculture. In: Advances in Geographical and Environmental Sciences, Springer, Singapore.
- Gunjan P., Mishra S. K., Lohani A. K., Chandniha S. K. (2023). Impact estimation of landuse/land cover changes and role of hydrological response unit in hydrological modelling in a watershed of Mahanadi River basin, India (PDF) Impact estimation of landuse/land cover changes and role of hydrological response unit in hydrological modelling in a watershed of Mahanadi River basin, India. Natural Hazards.

## **Placements:**

S.No. Roll No. Name of Company/Industry Name Akshat Sharma 2001962 **GSA** Industries Patiala 1 GSA Industries, Maharana Pratap Amit Kumar 2 2001963 University of Agriculture & Technology, Mandusia Udaipur 3 Anjali 2001966 **GSA** Industries 4 Ankita 2001967 **GSA** Industries 5 2001974 Bharat Prakash industries, India Mart GSA Industries, CAU imphal Manipur, 6 Guru Mehar Gupta 2001979 Mondelez International (Cadbury) 7 2001982 **GSA** Industries Harshit Gupta

About 54% of 1<sup>st</sup> batch were placed placement in various agricultural industries

			-
8	Harshita Agarwal	2001983	GSA Industries
9	Jay Prakash Indolia	2001986	Escorts Kubota Limited
10	KM Sakshee Parashar	2001992	CNH Pvt Ltd
11	Manisha Yadav	2001994	CNH Pvt Ltd
12	Manvendra Saraswat	2001995	Escorts Kubota Limited
13	Muskan Kumari	2001998	GSA Industries
14	Nisha Mathur	2002003	LNM Infra projects
15	Prachi Gautam	2002005	Escorts Kubota Limited
16	Pushpendra Kumar	2002009	GSA Industries, TAFE
17	Ravi Solanki	2002010	Isar Silchar Bihar
18	Suryam Kaushik	2002016	GSA Industries
19	Sakshi Tomar	2002210	GSA Industries (left), Shobhit University, Meerut

## Department of Electrical Engineering

Established in 1950, the Department of Electrical Engineering of the Dayalbagh Educational Institute supports Under-Graduate, Post-Graduate and Doctoral Programmes. At the UG and PG level a broad-based course structure enables the students to acquire core competence and specialization in the fields of Power Systems, Electrical Machines, Electronics and Computer Science by way of core courses, electives, and focused projects. The four year undergraduate programme leads to the Bachelor of Technology (B.Tech) degree in Electrical Engineering with specialization in Electronics and Computer Science. The effectiveness of the programmes is indicated by the excellent performance of our students in competitive examinations such as GATE, CAT, GRE etc. Further, the fact that the students score very high percentile (>99 percentile) in Electrical Engineering, Electronics and Computer Science clearly show the superiority of the broad-based programme followed by the Department.

An innovative and unique M. Tech. Programme in "Engineering Systems" is jointly conducted with the Mechanical Engineering Department. The programme is designed to inculcate in the students the 'Systems' way of thinking. Development of such a systemic viewpoint enriches the mindset of the students to address real life problems in a holistic manner. The Master's level programme is offered in Engineering Systems on Full time and Part time basis. These full-time programme is of two year duration and the part- time programme of 3.5 year duration. The research programme in Electrical Engineering, Computer Science, Soft Computing and renewable energy systems and other related areas leads to the Ph.D. Degree awarded by the Institute. In addition to these regular programmes, this department is also offering a five-year part-time B.Tech. in Electrical Engineering.

To increase the job prospects of students who wish to pursue electronics, a specialization in Electronics field has been started and the current nomenclature of

the degree awarded is "B.Tech. in Electrical Engineering with Specialization in Electronics". The department offers courses in Electronics related fields viz. Basic Electronics, Analog Electronics, Digital Electronics, Power Electronics, Electronics Design, VLSI Design, Microelectronics, Microprocessors & Microcontrollers etc.

Besides these theory courses, students peruse major and minor projects in the areas of Embedded systems, VLSI design, Electronics, FPGA and VHDL Programming, Renewable Energy, Communication, Control, digital relays, Real time Operating Systems etc. Several of these projects were awarded student competitions held at different institutions.

Research Areas: The Faculty is involved in research in following areas related to Electronics– VLSI design, Design and development of embedded systems, Renewable Energy Systems, Modelling and simulation of power electronic systems, IoT, Smart metering, Digital Signal Processing etc. The department provides a strong input of electronics so that the students can envisage a fruitful career in the field. Several alumni have excelled in Government sector, electronics, IT and other industries.

#### **Specialization in Computer Science in Electrical Engineering Department**

Faculty of Engineering, Dayalbagh Educational Institute offers an innovative B Tech programme i.e. B Tech Electrical Engineering (with Specialization in Computer Science) wherein a student in B Tech Electrical / Mechanical /Civil Engineering programme can opt for Specialization in Computer Science at the Third Year Level. Considerable Computer Science inputs are available, and the students take specialization courses if they opt for Specialization in CS apart from two courses on Introduction to Computers and Programming in C and Data Structures and associated Lab which are compulsory. The specialization Courses include Computer Architecture, Advanced Programming Lab (Java Lab), Design and Analysis of Algorithms and associated Lab, Software design, Computer Networks and associated Systems Lab, Digital Image Processing, Operating Systems, Stream Seminar (a Seminar Course in which students give a seminar on latest topics in Computer Science), Mobile Computing, Quantum Computing, Cooperative Internship in Industry for 5 months after Third year Wherein CS specialization students typically go to Software industry and Final year Major project (Two semesters Project work).

With these inputs students have a flexibility of appearing in GATE in their core branch or in the specialization as well. Students have done exceedingly well in GATE CS in the past few years resulting in their being admitted to prestigious Masters programmes in IISc, Bangalore, IIIT, Hyderabad, IIIT, Bangalore, IIT Kanpur, IIT Delhi, IIT Guwahati and so on. They have also joined the top notch industries like Microsoft, Adobe, Accenture, TCS, Cadence Design Systems and a host of others which amply prove the effectiveness of the specialization offered.

The Faculty have been publishing in journals like IEEE Transactions on Fuzzy Systems, Soft Computing, Applied Soft Computing, Memetic Computing, Expert Systems and Applications, Swarm and Evolutionary Computation etc. They have also been reviewers of Journals of IEE, Springer, Elsevier etc. They have successfully completed sponsored projects with Ministry of Information Technology, UGC, AICTE and DST etc. They are expert members of DST Screening Committee for Quantum

science and technology initiative, member of AICTE Expert Visiting Committee for Skill Courses, member for Course Structure for Skill Courses in Computer Science at national level. They have also been contributing to Institute's projects in Dayalbagh Dairy, Monitoring of vehicles during harvesting and other activities. They have been consulting for industries like Cadence Design Systems, Essar Steel etc. They have successfully completed one Indo-German international funded project and another one has been sanctioned. They have a collaboration with Kiel University, Germany in Computer Science wherein students registered in Dayalbagh and in Kiel are being jointly supervised by both sides. Both sides have been visiting each other almost every year for the last 10 years.

At the research level the Department has focused on cutting edge soft computing technologies and their applications in diverse fields of Electrical Engineering. The current research interests can be classified into the following broad disciplines: Systems Engineering, Signal Processing, Power Systems, Soft Computing & Quantum Algorithms, Mobile Telecommunication Networks, Search Based Software Engineering and Electrical Drives.

The two major research groups in the department are the Power & Energy Systems group and the, Soft Computing & Computer Science Group. These groups also promote interdisciplinary research that are in the domain of the faculty expertise. The laboratories and research facilities in the Department are well maintained and regularly updated. Members of the faculty are actively involved in sponsored research and consultancy works. The R&D projects undertaken in the past were sponsored by the various agencies like the Ministry of Human Resources Development (MHRD) Government of India, the Department of Science & Technology (DST) Government of India, All India Council for Technical Education (AICTE). The Faculty has also received a grant of Rs 10.00 Crore from MHRD-TEQIP-III to strengthen the teaching & research facilities.

#### **Courses offered**

- Ph.D
- M.Tech Engineering Systems
- M.Tech Engineering Systems (PT)
- B.Tech Electrical Engineering
- B.Tech Electrical Engineering (PT)
- BVoc. AI and Robotics
- BVoc. Renewable Energy
- Certificate course "Solar Technician"

#### Salient features of the department

- Teaching beyond curriculum to enhance practical knowledge.
- Workshops, Seminars, Paper presentations are arranged to enhance teaching learning skills as well as knowledge upgradation.
- Industrial visits and Five-month Industrial Internship under Coop Education Programme after Third Year.

- Use of Modern teaching aids.
- The department has dedicated Software like, MATLAB, MULTISIM, ETAP, wind simulator, PV 200, PV Syst etc.
- Experts from IITS, Industries & Govt. Agencies are invited to deliver special lectures.
- Special coaching facility for IES/ GATE exams in the institute.
- State of the art Laboratories with High Voltage Lab., Transmission Line Simulator, OPAL-RT real time simulator
- Operative Solar Plants, Biogas Plant and Solar Thermal plants as labs on land for experiential learning.

## **Facilities in the Department**

Details of Laboratories, equipment and facilities existing in the department are:

Laboratories

- 1) Basic Electronics Lab
- 2) Power Electronics Lab
- 3) Control Lab
- 4) Electrical Machines Lab
- 5) Electrical Measurement Lab

Project laboratory: Following specialized labs for Projects are available in the department

- 6) Microgrid Lab
- 7) Computer Simulation Lab
- 8) Microprocessors Lab

For projects the following major facilities are available to the students:

- a) 24 X 7 uninterrupted power supply
- b) 4 x 7 Wi-Fi connections in the campus
- c) Subscriptions to e-Journals
- d) MoUs with institutions of Higher Learning for Joint/collaborative project guidance
- e) MoUs with the industries for Joint Guidance
- f) High Speed latest computers
- g) All state-of-the-art equipment are available in the departments
- h) Students are free to utilize any faculties under supervision.
- i) More than 75 % utilization of the equipment available
- j) Sufficient Funds for the project whenever required

k) Opportunity for the students to display their project to Public on every 31st January celebrated as Founders Day (Open Day)

New Facilities Created in the Department during the year

- 1) Solar Agri Farm
- 2) Solar based DC Microgrid of 1kW

## **Ongoing Research Projects**

Sl. No.	Title of the collaborative activity	Name of the collaborating agency with contact details	Name of the participant	Year of collaborat ion
1	Power Lab (Simulation)-Virtual Lab	MOE	Dr. D. K. Chaturvedi	Ongoing
2	Different Energy Vector Integration for storage of Energy	DST	Dr. Sailesh Babu	Ongoing
3	Lab-on-Chip Biosensor for Rapid, Label Free and Ultrasensitive Virus Detection using Additive Manufacturing Techniques	DST	Ms. Shamima Khatoon	Completed
4	Control Lab-Virtual Lab	MOE	Dr. Rajeev Kr. Chauhan	Ongoing

#### **Consultancy Offered**

- 1. Prof. D. Bhagwan Das, Prof. A.K. Saxena and Prof. G. S. Sailesh Babu designed and developed a Hybrid Power Plant Controller for M/s ReNew, a global leading Renewable & Green energy company as consultancy project. The controller is deployed successfully for a 32MW Hybrid Wind-Solar power plant of ReNew in Jam Nagar, Gujarat. (Amount: 15.00 Lacs)
- 2. Dr. R.K. Chauhan carried out an inspection of the 132 KV LILO at 220 KV Sub Station Fatehpur Sikri and 132 kV LILO PGCIL-Sikandra at 220 KV Sub-Station Kirawali, U.P. Power Transmission Corporation Ltd. He also inspected the 132 KV Tudla-Fariha Line, U.P. Power Transmission Corporation Ltd. (Amount: 2.00 Lacs)
- 3. Prof. A. K. Saxena and Prof. D. Bhagwan Das also visited Rajaborari, Buxar and Murar for earth resistivity measurements.

## **Patents Granted**

1. An Indian patent filed by the staff of the Electrical Engineering Department, led by Dr. R. K. Chauhan, titled "Energy Management System for Photovoltaic-

Battery-Based DC Microgrid in Buildings", was published on 12/02/2024 in accordance with the provisions of the Patents Act.

- 2. An Indian patent filed by the staff of the Electrical Engineering Department, led by Dr. R. K. Chauhan, titled "Method and System for Rechargeable Battery Monitoring in Photovoltaic-Based Microgrid Systems", was published on 16/05/2024 in accordance with the provisions of the Patents Act.
- 3. An Indian patent filed by the staff of the Electrical Engineering Department, led by Dr. R. K. Chauhan, titled "System for Echocardiography Machines to Find Out Jet Area Automatically for Mitral Regurgitation Severity Evaluation", was on 28/02/2024 in accordance with the provisions of the Patents Act.
- 4. An Indian patent filed by the staff of the Electrical Engineering Department, led by Dr. R. K. Chauhan, titled "System Design for Echocardiography Machines to Find Out the Vena Contracta Width Automatically for Mitral Regurgitation Assessment", was published on 11/03/2024 in accordance with the provisions of the Patents Act.
- 5. An Indian patent filed by a research student from the Electrical Engineering Department, led by Ahmed G., titled "Process and System for Low-Cost, Rapid, and In-Situ Fabrication of Disposable Passive Microfluidics LA", was published in 2024 in accordance with the provisions of the Patents Act.
- 6. An Indian patent filed by the staff of the Electrical Engineering Department, led by Dr. R. K. Chauhan, titled "Smart Cleaning and Avian Deterrent System for Solar Panels", was published on 05/07/2023 in accordance with the provisions of the Patents Act.
- An Indian patent filed by the staff of the Electrical Engineering Department, led by Dr. R. K. Chauhan, titled "Self-Sustainable Zero Energy House", was published on 31/03/2023 in accordance with the provisions of the Patents Act.
- 8. An Indian patent filed by the staff of the Electrical Engineering Department, led by Dr. R. K. Chauhan, titled "Design and Method of Priority-Based Multi-Level Charger for Electric Vehicles", was published on 20/10/2023 in accordance with the provisions of the Patents Act.
- 9. An Indian patent filed by the staff of the Electrical Engineering Department, Dr. A. Charan Kumari and Dr. K. Srinivas, titled "A REQSEL System with AI-Based Optimizer for Software Requirements Selection", was published on 17/03/2023 in accordance with the provisions of the Patents Act.
- 10. An Indian patent filed by the staff of the Electrical Engineering Department, Dr. A. Charan Kumari and Dr. K. Srinivas, titled "A System with CASE Tool Based on Hyper Metaheuristic Algorithm for Optimal Clustering of Modules in Software Systems", was published on 23/06/2023 in accordance with the provisions of the Patents Act.
- 11. An Indian patent filed by the staff of the Electrical Engineering Department, Dr. A. Charan Kumari and Dr. K. Srinivas, titled "RTO An Optimizer for

Regression Test Suite", was published on 13/10/2023 in accordance with the provisions of the Patents Act.

12. An Indian patent filed by the staff of the Electrical Engineering Department, Dr. A. Charan Kumari and Dr. K. Srinivas, titled "A Scheduling and Inspection Planner Software System for Software Development Projects", was published on 06/10/2023 in accordance with the provisions of the Patents Act.

#### **Patents Applied**

An Indian patent was filed by the staff of the Electrical Engineering Department, led by Dr. R. K. Chauhan, titled "Solar and Battery Power Management Device for Low-Voltage Direct Current (LVDC) Buildings." It was filed on 05/07/2023 in accordance with the provisions of the Patents Act.

#### Faculty/Staff Achievements/ Awards

- Dr. Subho Upadhyay was invited as a Guest Speaker for a one-week high-end workshop on "Hybrid Electric Vehicles and Alternative Fuels" organized by the Energy Centre, Maulana Azad National Institute of Technology (MANIT), Bhopal, from 12 -18 June, 2023. The workshop was conducted under the KARYASHALA Scheme, as part of a SERB initiative.
- Dr. Prem Prakash Vuppuluri delivered a plenary talk titled "Engineering Education in the Post-LLMs Era" at the 2<sup>nd</sup> International Conference on Computer Vision and Machine Intelligence (IEEE CRN 59935) on 11 December, 2023.
- Dr. Prem Prakash Vuppuluri was invited as a resource person for a one-week DST International Seminar on AI and Ethics at DST TEC, Bundelkhand University, Jhansi. He delivered expert lectures on "AI and LLMs: ChatGPT and other OpenAI Technologies" on 21February, 2024.
- Dr. Prem Prakash Vuppuluri delivered an invited talk titled "AI in Contemporary Research" at the AIU-DEI National Workshop on Research Methodology on 15 March, 2024.

#### **Students Achievements/ Awards**

1. Mr. Amrit Tewary, Mr. Ansh Mathur and Mr. Mehar P Kalra (Mentor: Dr. Prem Prakash Vuppuluri) won the First Prize in the CVRP Track of the Machine Learning for Vehicle Routing Competition in the XXVI Genetic and Evolutionary Computation Conference, 2024 held at Melbourne, Australia.

#### Workshops/Conferences/Seminars/Webinars Organized

- A One-Day Workshop was organized in collaboration with IEEE SB-DEI, on "Robotic Process Automation and Intelligent Automation: Overview and Industry Case Studies" on 13<sup>th</sup> July 2023. The special invited guest for the lecture was Mr. Prashant Talwar.
- A One-Day Workshop was organized in collaboration with IEEE SB-DEI, featuring a quiz titled "Ultimate Acronym Trivia" on 21st July 2023.

• A One-Day Workshop was organized in collaboration with IEEE SB-DEI, IAS, and WIE, on "Recent Trends in Engineering and Education in Germany" on 8<sup>th</sup> September 2023. The special invited guest for the lecture was Mr. Sachin Bansal from BMW, Munich, Germany.

## Workshops/Conferences/Seminars/Webinars Attended

1. Dr. Gufran Ahmad participated in a Faculty Development Program (FDP) on "Analog and Mixed Signal Design Using Synopsys Tools" held from 16 - 21 June, 2023, organized by the Synopsys Academic and Research Alliances. He also participated in a Faculty Development Program (FDP) on "Research Methodology and IPR" held from 9 -13 September, 2023, organized by IIIT Ranchi.

## **Publications**

- 1. Varshney, S., Singh, S., Lakshmi, C. V., & Patvardhan, C. (2024). Content-based image retrieval of Indian traditional textile motifs using deep feature fusion. Scientific Reports, 14(1), 10035.
- 2. Chauhan, R. K., & Chauhan, K. (2024). Three-port grid-tied solar EV charger. Patent Office Journal No. 13/2024, 29 March.
- 3. Saxena, A., Kumar, R., Amir, M., Iqbal, A., & Alharbi, T. (2024). A novel development of h-CSLQFL controller for optimal sizing and economic pricing of battery in electric vehicle system. Energy Reports, 12, 1474–1487.
- 4. Gautam, S., Das, D. B., & Saxena, A. K. (2024). Economic indicators evaluation to study the feasibility of a solar agriculture farm: A case study. Solar Compass, 10, 100074.
- 5. Vandana, L., Ahmad, G., & Mallik, S. (2024). Enhancement of photon absorption in thin-film CdTe solar cell with microtextured quartz substrate. Materials Today: Proceedings.
- 6. Vandana, L., Guhathakurata, S., Ahmad, G., & Mallik, S. (2024). Design prospect of CdTe solar cell using NW-CdS window layer and 3D graphene as back electrode from numerical approach. Indian Journal of Physics, 1–10.
- Garg, M., Das, G., & Vuppuluri, P. P. (2024). Assessing occupational hazards in welding operations: A machine learning-based approach for worker safety in Indian foundries. WORK: A Journal of Prevention, Assessment & Rehabilitation.
- Satsangi, A., Agarwal, P., & Vuppuluri, P. P. (2024). Detection and monitoring of unauthorized heavy vehicles in residential areas using deep learning. In 2024 IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI) (pp. 1–6). IEEE.
- 9. Dixit, K., & Ahmad, G. (2024). Study of high-efficiency lead-free FASnI<sub>3</sub> perovskite solar cell with WO<sub>3</sub> ETL and Cu<sub>2</sub>O HTL using numerical analysis. \*Indian Journal of Pure & Applied Physics (IJPAP, 62(7), 553–561.

- 10. Vuppuluri, P. P., Satsangi, K. P., Agarwal, P., & Arora, T. (2024). Data-driven machine learning models for load power forecasting in photovoltaic systems. In Intelligent Data-Driven Modelling and Optimization in Power and Energy Applications (1st Ed.). CRC Press. ISBN 9781003470274.
- 11. Sachdev, U., Kumari, A. C., & Srinivas, K. (2024). Examining transfer learning models to classify brain tumors from MRI images: A comparative analysis. In International Conference on Paradigms of Communication, Computing and Data Analytics (PCCDA 2024). Rishikesh, India.
- 12. Satsangi, A., Srinivas, K., & Kumari, A. C. (2024). Investigating transfer learning models for lung cancer detection from CT scans: A comparative evaluation. In Pandit, M., Gaur, M. K., & Kumar, S. (Eds.), Artificial Intelligence and Sustainable Computing: 5th International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology (ICSISCET 2023) (pp. 231–242). Springer, Singapore.
- Upadhyay, S., & Kumari, A. C., Srinivas, K. (2024). Harnessing EEG signals to detect schizophrenia: A deep learning approach. In Tiwari, R., Saraswat, M., & Pavone, M. (Eds.), Proceedings of International Conference on Computational Intelligence (ICCI 2023), (pp. 189–199). Springer, Singapore.
- 14. Singh, S., Srivastava, D. P., & Patvardhan, C. (2023). Quantum Tant-Fant. Indian Journal of Science and Technology, 16(9), 660–667.
- 15. Sharma, L., Chellapilla, V. L., & Chellapilla, P. (2023). Socio-inspired evolutionary algorithms: A unified framework and survey. Soft Computing, 27(19), 1-30.
- 16. Chaturvedi, S., Patvardhan, C., & Lakshmi, C. V. (2023). AI value alignment problem: The clear and present danger. In 6<sup>th</sup> International Conference on Information Systems and Computer Networks (ISCON) (pp. 1–6). IEEE.
- 17. Varshney, S., Lakshmi, C. V., & Patvardhan, C. (2023). Madhubani art classification using transfer learning with deep feature fusion and decision fusion-based techniques. Engineering Applications of Artificial Intelligence, 119, 105734.
- 18. Varshney, S., Lakshmi, C. V., & Patvardhan, C. (2023). Traditional Indian textile designs classification using transfer learning. In Machine Learning, Image Processing, Network Security and Data Sciences: Select Proceedings of 3<sup>rd</sup> International Conference on MIND 2021 (pp. 371–385). Springer Nature Singapore.
- 19. Varshney, S., Singh, S., Lakshmi, C. V., & Patvardhan, C. (2023). Traditional Indian textiles classification using deep feature fusion with Curvelet transforms. In 6<sup>th</sup> International Conference on Information Systems and Computer Networks (ISCON) (pp. 1–5). IEEE.
- 20. Jha, P. K., Teotia, F., & Saxena, A. K. (2023). Cybersecurity in the Indian electricity distribution system: A review. In 5<sup>th</sup> International Conference on

Energy, Power and Environment: Towards Flexible Green Energy Technologies (ICEPE) (pp. 1–6). IEEE.

- 21. Rao, T. K., Janardhana, K., & Simha, D. R. (2023). Potential benefits of exposure to nature on cognition in school students: A review. Scandinavian Journal of Information Systems, 35(1), 986–990.
- 22. Janardhana, K., Singh, V., Singh, S. N., Babu, T. R., Bano, S., & Boopathi, S. (2023). Utilization process for electronic waste in eco-friendly concrete: Experimental study. In Sustainable Approaches and Strategies for E-Waste Management and Utilization (pp. 204–223). IGI Global.
- 23. Khatoon, S., Khandelwal, A., Raj, A., & Ahmad, G. (2023). Fabrication of FFF 3D-printed surfaces for PMMA-based biomedical device employing preprocessing optimization to eliminate post-processing steps. Progress in Additive Manufacturing, 9(4),1-12.
- 24. Pancham, P. P., Mukherjee, A., Yuan, B. L., Yu, P., Chiu, W. H., Ahmad, G., & Mallik, S. (2023). Novel graphene transfer method to silicone and its sensing application on porous PDMS. IEEE Sensors Letters.
- 25. Kalra, M. P., Sameer, M., & Ahmad, G. (2023). A deep convolutional neural network approach for reliable brain tumor detection and segmentation system. In 3<sup>rd</sup> International Conference on Intelligent Technologies (CONIT) (pp. 1–4). IEEE.
- 26. Singhal, M., & Ahmad, G. (2023). Deep learning-based real-time face recognition for university attendance system. In International Symposium on Devices, Circuits, and Systems (ISDCS) (Vol. 1, pp. 01–04). IEEE.
- 27. Swaroop, K. S., & Ahmad, G. (2023). Design of CMOS memristor emulator and logic gates for neuromorphic circuits. In International Symposium on Devices, Circuits, and Systems (ISDCS) (Vol. 1, pp. 1–6). IEEE.
- 28. Singh, A. G., & Chauhan, R. K. (2023). An algorithmic-based energy sharing model with peer-to-peer energy trading for clustered residential buildings. Journal of Building Engineering, 106960.
- 29. Mathur, A., Dhaked, D., Gupta, H., Singh, N., & Chauhan, R. K. (2023). Comparative study of regression models for PV power prediction. In XIX International Scientific-Technical Conference Alternating Current Electric Drives (ACED) (pp. 1–5). IEEE.
- Upadhyay, A., Das, G., & Chauhan, R. K. (2023). Aluminium-sulfur batteries: A low-cost alternative to lithium-ion batteries. In XIX International Scientific-Technical Conference Alternating Current Electric Drives (ACED) (pp. 1–5). IEEE.
- Panit, V., & Chauhan, R. K. (2023). Evaluation of different state-of-charge estimation techniques for electric vehicles. In XIX International Scientific-Technical Conference Alternating Current Electric Drives (ACED) (pp. 1–5). IEEE.

- 32. Saha, S., Saini, G., Chauhan, A., Upadhyay, S., Elavarasan, R. M., & Lipu, M. H. (2023). Optimum design and techno-socio-economic analysis of a PV/biomass-based hybrid energy system for a remote hilly area using a discrete grey wolf optimization algorithm. Sustainable Energy Technologies and Assessments, 57, 103213.
- 33. Malik, P., Awasthi, M., Upadhyay, S., Agrawal, P., Raina, G., Sharma, S., Kumar, M., & Sinha, S. (2023). Planning and optimization of a sustainable gridintegrated hybrid energy system in India. Sustainable Energy Technologies and Assessments, 56, 103115.
- 34. Mishra, S., Saini, G., Chauhan, A., Upadhyay, S., & Balakrishnan, D. (2023). Optimal sizing and assessment of a grid-tied hybrid renewable energy system for electrification of a rural site. Renewable Energy Focus, 44, 259–276.
- 35. Amoriya, V., Chauhan, R. K., Panit, V., Jahanvi, Verma, S., Mittal, S., Upadhyay, S., Chauhan, K., & Cardenas, A. (2023). Modeling of a bidirectional electric vehicle charger for grid ancillary services. \*International Journal of Emerging Electric Power Systems, 16(0).
- 36. Maia, M. R. H., Reula, M., Parreño-Torres, C., Vuppuluri, P. P., Plastino, A., Souza, U. S., Ceschia, S., Pavone, M., & Schaerf, A. (2023). Metaheuristic techniques for the capacitated facility location problem with customer incompatibilities. Soft Computing, 27(8). Springer-Verlag.
- 37. Agarwal, K., Yadav, P., Lakshmi, C. V., Vuppuluri, P. P., & Patvardhan, C. (2023). Clustering-based heuristic approaches for the Euclidean leaf-constrained minimum spanning tree problem. In IEEE 20<sup>th</sup> India Council International Conference (INDICON) (pp. 819–824). IEEE Press.
- 38. Gill, A., & Vuppuluri, P. P. (2023). Novel scheduling heuristics for a truck-anddrone parcel delivery problem. In Intelligence in Human-Computer Interaction (pp. 203–219). CRC Press. ISBN 9781003415466.
- 39. Goyal, A., Kritika, Vuppuluri, P. P., & Babu, G. S. S. (2023). An analytical approach towards the prediction of undefined parameters for the National Institutional Ranking Framework. In IEEE 4<sup>th</sup> Annual Flagship India Council International Subsections Conference (INDISCON) (pp. 1–8). IEEE.
- 40. Pandey, A., Taneja, N., & Vuppuluri, P. P. (2023). Heuristic strategies for warehouse location with store incompatibilities in supply chains. In Intelligence in Human-Computer Interaction (pp. 185–201). CRC Press. ISBN 9781003415466.
- 41. Satyanarayana, A. V., Patvardhan, C., & Vuppuluri, P. P. (2023). Vehicle advisory module for professional drivers to circumvent whole-body vibration hazards. In XVIII International Conference on Vibration Engineering & Technology of Machinery. Springer.
- 42. Singh, J., Sparsh, Bansal, A., Mittal, S., & Kumari, A. C. (2023). Revitalizing traditional health practices with Healing Hands: An AI-powered chatbot. In

International Conference on Computational Intelligence and Sustainable Engineering Solutions (CISES) (pp. 333–339). IEEE.

43. Jain, S., Srinivas, K., & Kumari, A. C. (2023). Inspecting transfer learning models for diabetic retinopathy detection. In 2023 3<sup>rd</sup> International Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET) (pp. 01–06). IEEE.

## **Book in print**

Gupta N, Kumar S, Upadhyay S, Editors. Artificial Intelligence and Machine Learning Applications for Sustainable Development. Taylor and Francis; 2024.

## **Placements**

- Tisha Bansal got placed in Nippon Data with a package of ₹14 LPA.
- Nij Mehar Grover secured a position at Bhanzu, Bangalore, with a package of ₹30 LPA. Tarang Singh, Shikha Satsangi, and Aditya Sharma were placed at Keysight Technologies, each with a package of ₹14 LPA.
- Surat Pyari and Max Agarwal joined JSW Energy with a package of ₹9.5 LPA each. Harshita got placed in Polycab with a package of ₹7 LPA.
- Lokesh Sharma secured a role at Volvo Eicher with a package of ₹4.6 LPA.
- At CG Power, several students were placed, including Gitali Anand, Surat Nigam, Jatin Kushwah, Harshita Solanki, Mehak Chaudhary, Kirti Agarwal, and Agam Pratap Singh, each with a package of ₹4.5 LPA.
- Ayush Kumar, Praveen Kumar, Anushka Yadav, Varsha Khair, and Diya Singh got placed in Torrent Group, each with a package of ₹4.25 LPA.
- Ch. Lakshmi Arshini and G. Agam Swarup joined Cadence, both with a package of ₹6 LPA.
- Piyush Kudiwal and Niwas Kumar Yadav were placed at Tricolite, each with a package of ₹3 LPA.
- Ritika Kapoor secured a position at Fresh Prints with a package of ₹4.5 LPA, while Samyak Jain got placed in Genisup India Private Limited with a package of ₹4.5 LPA.
- Pankaj Solanki and Anhad Parashar joined CSV Trade, each with a package of ₹6 LPA. Mohammad Adil secured a role at Pearce Renewables with a package of ₹3 LPA.
- Ayushi Verma and Shreya Satsangi got placed in VA Tech Wabag Ltd, each with a package of ₹5 LPA.
- Radha Singh Jadaun joined Navitasys India Private Limited with a package of ₹6.5 LPA.
- Tushar Upadhyay got placed in JBM Electric with a package of ₹4 LPA.

- Krishna Kaushik, Abhinav Shivhare, and Atul Indolia joined MfilterIt, each with a package of ₹4 LPA.
- Amit Kumar secured a position at GSAI with a package of ₹2.6 LPA.

## Department of Civil Engineering

Department of Civil Engineering was established in the year 2013 with a vision to become a leading Civil Engineering Department by fostering a collaborative and stimulating environment of academic and student excellence with the goal of selfless service to humanity.

## Thrust Areas of Research -

Transportation Engineering, Environmental Engineering (Air pollution, Atmospheric Science, Water, and Wastewater Engineering), Sustainable Concrete, Structural Engineering, Soil Dynamics, Geotechnical Earthquake Engineering, Ground Improvement, and Geotechnical Engineering.

**Courses Offered** - B. Tech. (Civil Engineering), M. Tech. (Engineering Systems) & Ph.D. (Civil Engineering)

#### Salient features of the department. -

- The department has been well involved in taking up Industrial Consultancy each year.
- R&D projects supported by various government agencies such as TEQIP, AICTE, and UGC, etc. have been completed successfully and more are underway.
- The department is equipped with state-of-the-art equipment like Differential GPS, Total Station, Water Analyzer, Digital Flame Photometer, UTM, Standard Penetration Test, UCS, CBR, and Marshall Test, Water Analyzer, Turbidity Meter, Digital Flame Photometer, Spectrophotometer, BOD incubator and latest software like ANSYS, STAAD Pro, Global Mapper, etc. Students participate in real-life civil engineering projects (levelling and contouring of lands, canal design, structural design of buildings, soil and water testing) as part of social outreach programs.
- The department has student chapters of the Indian Green Building Council and the Institution of Engineers.

## **New Facilities Created in the Department**

• The department has introduced the Bureau of Indian Standard (BIS) Club, which is financially supported by BIS. This club is responsible for coordinating a diverse array of activities designed to offer valuable learning experiences to the students within the realm of quality and standardization.

• The department has become a nodal centre for the IIRS (Indian Institute of Remote Sensing) Online Training Program. Its primary objective is to facilitate the growth of human resources within the realm of Remote Sensing.

#### **Facilities in the Department**

Facilities are mentioned below for each Lab:

#### Geotechnical Engineering Lab

Facilities - Sieve Analysis Facility, Casagrande Apparatus, Core Cutter, Direct Shear Apparatus, Consolidometer, Standard Penetration Test (SPT), Hydrometer, Standard Proctor test, California Bearing Ratio (CBR) Test apparatus, and Pycnometer.

#### Geomatics Lab

Facilities - DGPS, Handheld GPS, Total Station, Chain Surveying, Theodolite, Compass Survey, Plane Table Surveying, Auto Level, Dumpy Level

#### **Transportation Engineering Lab**

Facilities - CBR Test Apparatus, Ring and Ball Apparatus, Ductility Testing Machine, Aggregate Impact Hammer, Aggregate Crushing Cylinder, Los Angeles Abrasion Value Test Apparatus, Flakiness Gauge, Elongation Gauge, Sieve Set, Hot Air Oven, Marshall Stability Apparatus, Centrifuge Extractor, Standard Penetrometer, Viscometer, Open cup Cleaveland Apparatus and Benkelman Beam.

#### Structural Analysis Lab

Facilities - Deflection of Beam Apparatus, Column and Struts Apparatus, Elastic Properties of Deflected beam Apparatus, Curved Member Apparatus, Three Hinged Arch Apparatus, Unsymmetrical Bending Apparatus, Redundant Joint Apparatus

#### **Building Material and Concrete Lab**

Facilities - Le Chatellier Apparatus, Sieve Analysis Apparatus, Vicat Consistency Test Apparatus, Compression Testing Machine (CTM) Apparatus, Blain Air Permeability Apparatus, Autoclave Apparatus, Wire Bucket, Tile abrasion Machine, Vibrated Cube casting Apparatus, Standard Cube and Cylindrical mould

#### Concrete Technology Lab

Facilities – Slump Cone Test Apparatus, Compaction Factor Test Apparatus, Vee-Bee Consistometer test Apparatus, Workability Flow table, U –Box Apparatus, L-Box Apparatus, V- Funnel Apparatus, Flow Table Apparatus, Digital Rebound Hammer, Ultra-sonic pulse velocity Test, Flexural beam testing Apparatus, Tilting Concrete Mixer, 40 mm Needle Vibrator, Concrete Permeability Apparatus.

#### Environmental Engineering Lab

Facilities - Water Analyzer, Turbidity Meter, Digital Flame Photometer, Spectrophotometer, BOD Incubator, Jar test Apparatus

#### Achievements

- The Department of Civil Engineering has conducted material testing consultancy projects amounting to a total of ₹11,64,650 (including GST) from 1st July 2023 to 30th June 2024.
- Mr. Devesh Jaysawal undertook a consultancy project for vetting the structural design and drawings of the vertical crossflow wetland structure at Malpura, Akola Village, Agra, for the Minor Irrigation Department, Uttar Pradesh.
- Expert guidance was provided for the strengthening of the Floating Pontoon Bridge connecting Sikandarpur Village and Nagla Chatura Village. The team from the Civil Engineering Department included Mr. Devesh Jaysawal, Mr. Randeep, and Dr. Ishant Singhal.
- Expert guidance was offered for the design and implementation of a unique, cost-efficient V-Notch made of granite stone at the main water supply field. The project team from the Civil Engineering Department comprised Mr. Devesh Jaysawal and Dr. Ishant Singhal.
- Assistance and expert guidance were provided in surveying land near Radha Bagh using total station equipment. The survey team included Mr. Devesh Jaysawal and Md. Sharique Ahmad from the Civil Engineering Department.

Title	Inventor from Civil Engineering Department	Patent Application No.	Granted/ Applied
Method and System for Making Silicone Washers and Gaskets	Dr. Ishant Singhal	202011038309	Granted
System and Method to Simulate 3D Printer Machine	Dr. Ishant Singhal	202011018294	Granted
Foldable Freeform Fabricator	Dr. Ishant Singhal	202011019765	Granted

**Patents Granted** 

Workshops/Conferences/Seminars/Webinars Attended

- Dr. Ishant Singhal successfully completed an 8-week Faculty Development Program (FDP) on "Remote Sensing and GIS Technology and Applications" at the Indian Institute of Remote Sensing (IIRS), ISRO, from 13 May - 5 July, 2024.
- Mrs. Krishma Yadav participated in a 2-week 145<sup>th</sup> IIRS Outreach Programme on "LIDAR Remote Sensing, Data Processing, and Applications" at IIRS, ISRO, held from 5 -16 August, 2024. She also attended a 1-week 144<sup>th</sup>

IIRS Outreach Programme on "AI/ML for Geodata Analysis" at IIRS, ISRO, conducted from 19- 23 August, 2024.

- Dr. Ishant Singhal served in the capacity of Program Committee Chair at the 46<sup>th</sup> (Inter) National Systems Conference (NSC 2023) of the Systems Society of India organized from 27-29 June, 2023 at Dayalbagh Educational Institute.
- Mr. Devesh Jaysawal participated in one-week DST-SERB Accelerate Vigyan Karyashala, "Familiarization with Hands-on training on Advanced Analytical/ Characterization Equipment" organised by the Department of Chemistry, Dayalbagh Educational Institute Agra from 19-25 April, 2024. He also participated in the workshop on "IPR- Intellectual Property Rights/ Copyrights" organised by Dayalbagh Educational Institute Agra on 3<sup>rd</sup> Feb 2024.
- Ms. Krishma Yadav presented a paper on "Exposure to Particulate Matter and its Association with Respiratory Deposition Doses Among Outdoor Exercisers in Agra City over a Semi-Arid Region" International Conference on Pollution Control for Clean Environment (ICPCCE-2023) Indian Institute of Technology Bhubaneswar, Odisha, India on 15 -16 December, 2023.
- Ms. Krishma Yadav presented a paper on "Determination and risk assessment of endotoxin concentrations in air and biological constituents in particulate matter in Agra" International E-conference Recent Advances in Science and Technology, IITyam Delhi, 4-5 November, 2023.
- Ms. Krishma Yadav presented a paper on "Airborne microbial endotoxin enumeration and characterization of particulate matter in Agra, a semi-arid region of India" 37<sup>th</sup> Annual Conference Indian Council of Chemist, University of Kota, Rajasthan, India, 20-22 December, 2023.
- Ms. Krishma Yadav presented a paper on "Endotoxin: a biomarker in the ambient air" International Conference on Sustainable Experimentation and Modelling in Civil Engineering (SCMCE-2023), Lovely Professional University, Punjab in association with Dr B R Ambedkar National Institute of Technology, Jalandhar, 10-11 August, 2023.
- Ms. Divyanshi Sharma presented a paper on "Thermal and Mechanical Performance of Sustainable Insulation Panels using Leather Waste and Footwear Waste" in 8th International Conference on Advanced Production and Industrial Engineering (ICAPIE-2024), GGSIPU with Delhi Technical University, Delhi, 28-31 August, 2024.
- Ms. Krishma Yadav, Ms. Priyanka Chauhan, Ms. Divyanshi Sharma and Mr. Rajat Gupta participated in a workshop on "IPR- Intellectual Property Rights/ Copyrights" organized by Dayalbagh Educational Institute Agra on February 3, 2024.
- Ms. Shivangi Singh and Ms. Utkarshika Singh presented a paper on "Age-Specific lobar and regional size, Particle deposition of particulate matter in Agra, India" 4<sup>th</sup> Edition of the National Environmental Conference (NEC-2024), IIT Bombay, 15-17 February, 2024.

## **Publications**

- Ishant Singhal, Guru Ratan Satsangee, Lakshya Bhardwaj, Gaurang S. Sharma, Anand Swaroop Chandrakar, Hritav Gupta, Gargi Malik, Bobby Tyagi, Ankit Sahai, & Rahul Swarup Sharma. (2024). 3D-Printing Virtual Simulation Lab. IEEE Transactions on Learning Technologies, 17, 1530–1543.
- 2. Pandit, B., Rehman, A., & Jaysawal, D. (2024). Parking harmony: A case study of Dayalbagh University campus. International Journal of Current Innovations in Interdisciplinary Scientific Studies, 8(1).
- 3. Praveen, & Jaysawal, D. (2024). Comparative study of clay bricks and AAC blocks. International Journal of Structural Design and Engineering, 5(1).
- 4. Kaushik, S., & Singh Bhan, P. (2024). Chemical modifications of recycled concrete aggregates. International Journal of Emerging Science and Engineering, 12(7).
- 5. Agarwal, S., & Jaysawal, D. (2023). Ferrock material: A case study. International Journal of Research in Civil Engineering and Technology, 4(2), 1–3.
- 6. Vimal, H., Kaushik, N., & Jaysawal, D. (2023). Stabilization of soil using geotextile. International Journal of Research in Civil Engineering and Technology, 4(1), 24–29.
- 7. Singh, B. P., & Jaysawal, D. (2023). Modification of bitumen using the waste plastic. Journal of Emerging Technologies and Innovative Research, 10(4), 354–359.
- Mittal, I., & Jaysawal, D. (2023). Liquification of soil during earthquakes: Potential of soils. International Journal of Civil Engineering and Construction, 2(1), 17–20.
- 9. Upadhyaya, S., & Jaysawal, D. (2023). Geotextile reinforcement in pavement design: A comprehensive analysis. International Journal of Civil Engineering and Construction, 2(1), 21–25.
- Arushi, Rajput, A., Solanky, K., Agarwal, S., Awasthi, R., Satsangi, S., & Yadav, K. (2023). Seismic analysis of buildings on hilly slopes. In Proceedings of the 46<sup>th</sup> (Inter) National Systems Conference (NSC 2023). Dayalbagh Educational Institute, June 27–29,
- 11. Singhal, I., Tyagi, B., Raj, A., Jain, A., Kapoor, S., Sahai, A., & Sharma, R. S. (2023). Analysis of multiple print-head displacement mechanisms in 3D space for material extrusion machine. 3D Printing and Additive Manufacturing. Advance online publication. https://doi.org/10.1089/3dp.2023.0096
- 12. Sharma, D., Modi, V. K., & Kumar, C. (2023). Techno-economic analysis of insulating bricks used in educational buildings made by locally available agricultural waste. EVERGREEN Joint Journal of Novel Carbon Resource Sciences and Green Asia Strategy, 10(4), 2590–2598.

13. Ahmad, M. S., & Gupta, R. (2023). A review on phase change material in building construction. International Journal of Scientific Research in Engineering and Management, 7(5).

#### **Placements**

- Sudhanshu Dhakrey and Praduman Sharma secured placements at VA Tech WABAG with a CTC of ₹4.5 LPA.
- Sankalp Kaushik and Paramveer Singh Chauhan were placed at JSW Energy with a CTC of  $\gtrless 8$  LPA.
- Bhoomi Pandit, Gunjan Soni, Raj Chaurasiya, and Sunil Kumar joined Ericsson India Pvt. Ltd. with a CTC of ₹4.5 LPA.
- Abhishek Pundhir and Praveen were placed at NCC Ltd. with a CTC of ₹4.2 LPA.
- Kartikeya was hired by Mfilterit with a CTC of ₹4.4 LPA.
- Mohit Singhal and Manish secured positions at OOMS PMB Pvt. Ltd. with a CTC of ₹2.16 LPA.
- Shivanshu Kulshrestha and Nikhil Agarwal joined Vishvaraj Environment Pvt. Ltd. with a CTC of ₹5 LPA.
- Sonu Kumar was placed at PNC Infratech Limited with a CTC of ₹2.52 LPA.

## (2) Higher Studies:

• Khushal Sharma was admitted in M. Tech. in Geoinformatics from NIT Surathkal

#### **Co-op Internship:**

The civil engineering department could attract top-notch companies and research institutes for co-op internships of third-year civil engineering students. All companies, except a few, provided either stipend or quality food/lodging at nominal prices and travelling facility.

Devendra Kumar Sharma	CSIR - CRRI (Central Road Research Institute)	Delhi
Suhani Rathi	Larsen and Toubro (L&T)	Delhi
Sachin Rathore	Agra Smart City Ltd.	Agra
Darshit Srivastava	Agra Smart City Ltd.	Agra
Deepak Chaudhary	Agra Smart City Ltd.	Agra
Maharishi Raj Karan Singh	Agra Smart City Ltd.	Agra
Naushin Beg	Agra Smart City Ltd.	Agra
NEHA	Agra Smart City Ltd.	Agra
Sanchit Sadana	Agra Smart City Ltd.	Agra
Devesh Singh	Aligarh Smart City Ltd.	Aligarh
Prashant Singh	Aligarh Smart City Ltd.	Aligarh
Rohit Kumar	CSIR - CBRI (Central Building Research Institute)	Roorkee

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Anish Kushwah	CSIR - CBRI (Central Building Research Institute)	Roorkee
Anup Sharma	CSIR - CBRI (Central Building Research Institute)	Roorkee
Arjun Soni	CSIR - CBRI (Central Building Research Institute)	Roorkee
Diksha Gola	CSIR - CBRI (Central Building Research Institute)	Roorkee
Harshita Singh	CSIR - CBRI (Central Building Research Institute)	Roorkee
Himanshu Pratap	CSIR - CBRI (Central Building Research Institute)	Roorkee
Jesika		Roorkee
Khushi Kumari	CSIR - CBRI (Central Building Research Institute)	Roorkee
Mahima Prasad	CSIR - CBRI (Central Building Research Institute)	
	CSIR - CBRI (Central Building Research Institute)	Roorkee
Priyanshu Yadav	CSIR - CBRI (Central Building Research Institute)	Roorkee
Puneet Agrawal	CSIR - CBRI (Central Building Research Institute)	Roorkee
Raj Singh	CSIR - CBRI (Central Building Research Institute)	Roorkee
Shashwat Prasad	CSIR - CBRI (Central Building Research Institute)	Roorkee
Swati Sharma	CSIR - CBRI (Central Building Research Institute)	Roorkee
Utkarshika Singh	CSIR - CBRI (Central Building Research Institute)	Roorkee
Vishakha Sharma	CSIR - CBRI (Central Building Research Institute)	Roorkee
Yachana	CSIR - CBRI (Central Building Research Institute)	Roorkee
Shivangi Singh	CSIR - CBRI (Central Building Research Institute)	Roorkee
Anshul Singh	DEI	Agra
Piyush Singh	DEI	Agra
Adil Bashir Kumar	Fetch Construction	J&K
Gagan Deep Sharma	Jandial Infra Developers Pvt. Ltd.	J&K
Rakshit Sharma	Jandial infra Developers Pvt. Ltd.	J&K
Santpraksh Rajne	JSW Energy	Vijaynagar Karnataka
Amrit Satsangi	JSW Energy	Barmer, Rajasthan
Anshuman Singh Tomar	JSW Energy	Barmer, Rajasthan
Gabender Singh	JSW Energy	Vijaynagar Karnataka
Nand Kumar	JSW Energy	Vijaynagar Karnataka
Nipun Dixit	JSW Energy	Vijaynagar Karnataka
Saurabh	JSW Energy	Barmer, Rajasthan
Sonu Yadav	JSW Energy	Barmer, Rajasthan
Puneet Singh Tomar	Silogix NanoSystems	Bangalore (WFH)

• Ms. Neha received an appreciation certificate from Agra Smart City for her exceptional performance during her 5-months co-op internship.

## Department of Footwear Technology

The Department of Footwear Technology supports Under-Graduate, Post-Graduate and Doctoral Programmes. At the UG and PG levels a broad-based course structure enables the students to acquire core competence and specialization in the fields of Shoe Designing, Ergonomics of Shoes, Orthopaedic Footwear, Footwear production, testing, fabrication, packaging and marketing. Agra, especially Dayalbagh, has deep roots in the leather and footwear sector. Dayalbagh, as an institution, has been offering a certificate course in Leather and Footwear Technology since 1927. Diploma in Leather and Footwear Technology was started in 2004, and in 2014 a B.Tech. program in Footwear Technology was introduced. The Department of Footwear Technology has strong collaborations with many local, national and international renowned footwear industries. State-of-the-art computer aided footwear design lab and a full-fledged E.V.A shoes and chappal manufacturing plant have been established in the Footwear Technology department.

An innovative and unique interdisciplinary M.Tech. Programme in "Engineering Systems" is jointly offered for Electrical, Mechanical, Civil Engineering, footwear and aerospace engineers. The programme is designed to inculcate in the students the 'Systems' way of thinking. Development of such a systemic viewpoint enriches the mindset of the students to address real life problems in a holistic manner.

At the research level, the department has a prominent presence in the following diverse fields of Engineering: Intelligent Manufacturing Systems, Bio-Medical Engineering, Supply Chain Management, Decision Support Systems, Artificial engineering and machine learning, Computer aided engineering. The Department focuses on earn while learn scheme for students under which low cost EVA shoes and Chappals are manufactured. The department is gradually moving towards the intelligent walking technology.

The objectives of the department are

- 1. To provide a solid foundation in basic material sciences, analytical skills, and engineering fundamentals required to succeed in footwear field and to pursue research endeavours.
- 2. To provide broad-based exposure to the 'state-of-the-art' in Footwear discipline and to prepare students to respond to societal and global needs.
- 3. To train students with good scientific and practical engineering skills to comprehend, analyse, design, and create novel Footwear products and to encourage students to develop lifelong learning skills, entrepreneurship abilities, and ethical values for a successful professional career.

#### New Facilities Created in the Department during the year

Under Corporate Social Responsibility (CSR), Dept. of Footwear Technology, Faculty of Engineering, D.E.I., Design and developed low-cost customized orthopaedic shoes and custom-made solid block shoe last for patient having-

a. Bunion Foot deformity

- b. Splay Foot deformity
- c. Symes foot deformity
- d. Hammer toe deformity
- e. Flat foot deformity

#### **Facilities in the Department**

State-of-art laboratories such as CAD Lab (with shoe master, digitizer, laser printer, plotter and 3D scanner and printer), Physical and chemical Testing Lab, Footwear Fabrication Workshop, Orthopaedic custom-made shoes using single stroke, SM, and AM techniques.

Set-up of ATMA skill Framework (Products produced by students under Earn-while learn scheme)-

- 1 Full-fledged production of EVA shoes (White and Black) by EVA press molding machine.
- 2 Full-fledged production of Plain and Acupressure Flip-flops.
- 3 Goods and Garments
  - a. Ladies' bags
  - b. Laptop Bags
  - c. Travelling Bags
  - d. Belts (Ladies, Gent, and Kids).
  - e. Key Rings

#### Patent Granted

An Indian patent has been granted to the staff and research students of the Footwear Technology Department, led by Prof. Devendra Kumar Chaturvedi, for their innovation titled "Method for Development of Polymer Sheet from Used Polythene Bags." The patent, issued on December 26, 2023, is valid for a term of 20 years from April 8, 2023, under the provisions of the Patents Act, 1970. The patent is credited to Prof. Devendra Kumar Chaturvedi and Mr. Arjun Verma.

#### **Patents Hearing attended**

- 1 Mid-Sole and Insole for Footwears from the Waste of White Pumpkin. Inventors: Prof. Devendra Kumar Chaturvedi and Mr. Arjun Verma. Patent Application No. 202211071372.
- 2 Method for Creating Low-Cost Solid Block Shoe Last. Inventors: Prof. Devendra Kumar Chaturvedi and Mr. Arjun Verma. Patent Application No. 202211068606.

#### **Patents published**

1 Automatic EVA Granule Dispensing Machine, Inventors: Prof. Devendra Kumar Chaturvedi, Mr. Arjun Verma, Application No- 202411012598

- 2 Adaptive Beverage Dispensing Device, Inventors: Prof. Devendra Kumar Chaturvedi, Dr. Mogla Achal Maharaj Kishore, Mr. Arjun Verma, Application No- 202411035268
- 3 An Automated waste recycling device and a method thereof, Inventors: Prof. Devendra Kumar Chaturvedi, Mr. Sachin Diwakar, Ms. Nisha Verma, Mr. Hemant Yadav, Application No- 202411032860

## Faculty/Staff Achievements/ Awards

• Prof. D.K. Chaturvedi was on the Interview panel as external expert of Madhav Institute of Technology and Science (MITS) university, Gwalior, 31-July- 2024.

## Workshops/Conferences/Seminars/Webinars Organized

- A special workshop on Intellectual Property Rights (IPR) and Copyrights was organized on February 3, 2024. The workshop was sponsored by CST-UP and featured distinguished invited speakers, including:
  - ✓ Mrs. Pooja Kumar, Founder and CEO, Innove Intellects LLP, New Delhi.
  - ✓ Mr. Shubham Ratnam, Assistant Controller of Patents and Designs, Patent Office, New Delhi.
  - ✓ Dr. Arunesh Kumar Singh, Assistant Professor, Jamia Millia Islamia, New Delhi.

The workshop provided valuable insights into IPR and its implications for innovation and creativity. The session recording is available at: [Workshop on IPR and Copyrights- YouTube] (https://www.youtube.com/live/SIHIKTzE0AI?feature=shared).

## Workshops/Conferences/Seminars/Webinars/ Faculty Development

- Programme Attended
  - D.K. Chaturvedi, Sachin Diwakar, and Arjun Verma participated in International Conference on Current Research Trends in Engineering, Science and Medicine and presented paper on the topic "Journey from Insulin to Insole for Diabetes" on Oct 7, 2023, organized by VDGOOD Professional Association, India.
  - Sanjay Kulshreshtha, Dr D.K Chaturvedi, Effect of Generated Harmonics On Transformer Losses Due to Solar Penetration, and D.K Chaturvedi, Arjun Verma, Used polyethylene bags to form Electric insulation tap: An innovative Frugal approach in International Conference on Inclusive Growth: Science, Sustainability, Engineering and Management Solutions (ICISSEM) 2024"-Jointly organized by Greater Noida Institute of Technology (GNIOT), Greater Noida, Uttar Pradesh, India & Global Conference Hub, Coimbatore, Tamilnadu, India, Bihar, India & Global Conference Hub, Coimbatore, Tamil Nadu, India, 8-9 June 2024.
  - D.K. Chaturvedi, P. Agam Swaroop Satsangi, Kushagra Chaturvedi, An Efficient Approach for Assessing Foot Using Advanced Image Processing and Computer Vision Techniques for Dimension Estimation, World Conference

on Information Systems for Business Management, Bangkok 10110, THAILAND, 12 - 13 September, 2024.

- D.K. Chaturvedi, Shiva Mishra, AGC of Deregulated Power System using Polar FLC, International Conference on Energy and Environmental Materials (ICE2M-2024), organized by Department of Metallurgical Engineering and Materials Science, Indian Institute of Technology Indore, Khandwa Road, Simrol, Indore-453552, India July 11-13, 2024.
- D.K. Chaturvedi, S. Prabha, Revolutionizing Sustainable Agriculture using Albased Drone Technology, 13<sup>th</sup> National Conference on 'Innovation & Developments in High Altitude Technologies and Related Mechanisms', Aerospace Related Mechanisms and Systems (ARMS) on 14- 15 December 2023 at ADRDE Agra.
- D.K. Chaturvedi, Shiva Mishra, Adaptive Polar Fuzzy System for Parachute Trajectory Control, 13<sup>th</sup> National Conference on 'Innovation & Developments in High Altitude Technologies and Related Mechanisms', Aerospace Related Mechanisms and Systems (ARMS) on 14-15 Dec 2023 at ADRDE Agra.
- Arunesh Kumar Singh, Shahida Khatoon, Kriti Tripathi, Dr. D. K. Chaturvedi, Scope of aircraft noise for clean energy harvesting, 13<sup>th</sup> National Conference on 'Innovation & Developments in High Altitude Technologies and Related Mechanisms', Aerospace Related Mechanisms and Systems (ARMS) on 14-15 Dec 2023 at ADRDE Agra.
- Ravindra Bhardwaj, Sachin Diwar, D.K. Chaturvedi, Elevating Efficiency: A Fuzzy Logic Approach to dynamic prioritization in smart elevator system and Ravindra Bhardwaj, Sachin Diwar, D.K. Chaturvedi, Cardiovascular disease risk prediction using fuzzy logic in National Conference on Emerging Trends in Science, Engineering and Management, (ETSEM), organized by BSA College of Engineering and Technology, Mathura, 15 June 2024.

#### **Publications**

- 1 Chaturvedi, D. K., & Verma, A. (2024). Used polyethylene bags to form electric insulation sheet and tape: An innovative frugal approach. International Research Journal on Advanced Engineering and Management: Open Access Journal, 2(6). e-ISSN: 2584-2854.
- 2 Kulshreshtha, S., & Chaturvedi, D. K. (2024). Effect of generated harmonics on transformer losses due to solar penetration. International Research Journal on Advanced Engineering and Management, 2(6), 1939–1945. e-ISSN: 2584-2854.
- 3 Srivastava, P., Gaur, S. K., & Chaturvedi, D. K. (2024). An empirical study on enhancing renewable energy efficiency through information entropy. Journal of Electrical Systems, 20(9s).
- 4 Chaturvedi, D. K., & Verma, A. (2023). Orthopaedic footwear and foot deformities: A review. Research and Reviews on Healthcare: Open Access Journal, 8(3). ISSN: 2637-6679.

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5 Pratap Srivastava, Sant Kumar Gaur, D. K. Chaturvedi, (2024). An Empirical Study on Enhancing Renewable Energy Efficiency through Information Entropy, Journal of Electrical Systems, 20 (9s).

#### **Placements**

In this session, 100% placement record was achieved by the Department, with package ranging between 2.4 -12.0 LPA.

Students were placed in the following Companies-

- Liberty shoes Pvt. ltd.
- Gupta HV Overseas
- JQR sports
- Foot on Shoes
- Scispot
- MFilter IT

# **Department of Mechanical Engineering**

The Department of Mechanical Engineering, Faculty of Engineering was established in 1950 as DEI Engineering College, affiliated to Agra University. In 1981, Government of India notified Dayalbagh Educational Institute, as an institution deemed to be a university, by amalgamating the erstwhile REI Degree College and two other degree colleges in Dayalbagh, reconstituting them into the Faculties of Arts, Commerce, Education, Engineering and Science, to introduce an innovative and comprehensive programme of Education to evolve a complete man. Department of Mechanical Engineering, as a part of the Faculty of Engineering, has been in the forefront to implement this unique programme at the undergraduate level to achieve excellence with relevance, through its major courses, along with its allied and inter-disciplinary electives, cultural education, comparative study of religion, general knowledge, current affairs and scientific methodology, work-based training related major subjects, rural development, social service, literary and cultural activities and sports and games.

The department is NBA-accredited by two cycles. The Department supports Under-Graduate, Post-Graduate and Doctoral Programmes. At the UG and PG levels, a broad-based course structure enables the students to acquire core competence and specialization in the fields of Industrial & Production Engineering, Thermal Engineering, and Design Engineering by way of core courses, electives, and focused projects. The excellent performance of the students in competitive examinations including the GATE, CAT, and GRE is a strong pointer to the quality of the broadbased education imparted. An innovative and unique M. Tech. Programme in "Engineering Systems" is jointly conducted with the Electrical Engineering Department. The programme is designed to inculcate in the students the 'Systems' way of thinking. Development of such a systemic viewpoint enriches the mindset of the students to address real life problems in a holistic manner. At the postgraduate level, the focus is on advanced inputs, specializations in contemporary and applied fields of systems engineering, advanced manufacturing, additive manufacturing / 3D Printing, ergonomics and other fields acting as frontier areas of research. As a practice, the Department also admit students through the Lateral entry scheme of PM-USPY (earlier known as PMSSS - JK and Ladakh).

#### Specialization in Industrial Engineering in Mechanical Engineering Department

Industrial engineers determine the most effective ways to design, manage and improve systems — people, machines, materials, information, and energy — to make a product or provide a service and their interactions and performance in the workplace. Industrial Engineers play a key role in driving change. Skills developed in areas like change management, organizational transformation and systems optimization are increasingly valuable, making industrial engineers highly sought after throughout a wide range of industries. Thus, Faculty of Engineering, Dayalbagh Educational Institute offers an innovative B Tech programme i.e., B Tech Mechanical Engineering (with Specialization in Industrial Engineering) wherein a student in B Tech. Mechanical can opt for Specialization in Industrial Engineering at the Third Year Level. The students can take specialized courses in this domain like Methods Engineering & Ergonomics, Advanced Optimization techniques, Operational Research, Work System Design, Project Engg. & Management, Management Information Systems, Statistical Quality Control, Total Quality Management, Operations Management. In this regard, the IE program's curriculum provides students with a deep understanding of the foundational elements of industrial engineering. To strengthen interaction with industries and to keep our students updated with the latest trends being followed in the industry, MoUs were signed with IOCL, Faridabad, Maruti Suzuki India Ltd., Gurgaon, India Yamaha Motor Pvt. Ltd., Honda Motorcycle and Scooter India Pvt. Ltd., Manesar, Gurgaon, TVS Motor Company Ltd., Chennai. Also, students go for Cooperative Internship in Industry for 5 months after Third year wherein students undertake live industrial project.

#### **Specialization in Computer Science in Mechanical Engineering Department**

Faculty of Engineering, Dayalbagh Educational Institute offers an innovative B Tech programme i.e. B Tech Mechanical Engineering (with Specialization in Computer Science) wherein a student in B Tech Mechanical Engineering programme can opt for Specialization in Computer Science at the Third Year Level. With these inputs students have a flexibility of appearing in GATE in their core branch or in the specialization as well. Students have done exceedingly well in GATE CS in the past few years resulting in their being admitted to prestigious Masters programmes in IITs and IIITs. They have also joined the top-notch industries like EY, KPMG, Microsoft, Accenture, TCS, etc.

#### **Co-op Internship**

The 2023-24 Mechanical Engineering Cooperative Education (Co-op) internship batch, comprising 65 students, offered a diverse range of internships across various industries. Notable placements included Tata Cummins (9 students), Tata Motors (6), Maruti Suzuki (5), CBRI-IIT Roorkee (4), Honda Two Wheelers (3), DRDO (2),

Microsoft (2), Crompton Greaves (4), MFilterIt (4), Air Flow (2), Cadence Design Systems (2), ADRDE (3), and others.

These internships provided students with valuable experiences in both core engineering and computer science-related fields. Fifteen students received stipends ranging from ₹3,000 to ₹12,500 per month, while the majority of remaining students were provided with lodging and food facilities by the companies. Faculty members were assigned to mentor each student, offering academic and professional support throughout the internship. This program allowed students to apply their academic knowledge in practical settings, gaining invaluable industry experience.

#### **Thrust Areas of Research**

At the research level the Department has focused on cutting edge technologies and has a prominent presence in the following diverse fields of Mechanical Engineering: Additive Manufacturing, Ergonomics and occupational Health, Condition Monitoring & Vibration, Biofuels, Alternative Fuels, IC Engines, Refrigeration & Airconditioning, Renewable Energy, Computational Fluid Dynamics, Severe Plastic Deformations. The laboratories and research facilities in the Department are well maintained and regularly updated. Members of the faculty are actively involved in sponsored research and consultancy works. The R&D projects undertaken in the past were sponsored by the various agencies like the Ministry of Human Resources Development (MHRD) Government of India, All India Council for Technical Education (AICTE). The Faculty has also received a grant of Rs 10.00 Crore from MHRD-TEQIP-III to strengthen the teaching & research facilities.

# **Courses offered**

- Ph.D
- M.Tech Engineering Systems (FT)
- M.Tech Engineering Systems (PT)
- B.Tech. Mechanical Engineering,
- B.Tech. Mechanical Engineering with a specialization in Industrial Engineering and
- B.Tech. Mechanical Engineering with a specialization in Computer Science
- BVoc Automobile
- B.Voc Digital Manufacturing

# Salient features of the department

- The Computer Centre (CAD Lab) with more than 100 Computer Systems (I-7, 8GB RAM, Windows10) with high speed internet and Wi-Fi connectivity and printing facility.
- Designing, analysis, simulation licensed software viz. Solidworks@2019, AutoCAD, Solid Edge, ABAQUS FORGE, MTAB, and ANSYS are available with the department for complete solid modeling and simulating the results.
- Teaching beyond curriculum to enhance practical knowledge.

- Workshops, Seminars, Paper presentations are arranged to enhance teaching learning skills as well as knowledge upgradation.
- Industrial visits and Five-month Industrial Internship under Co-op Education Programme after Third Year.
- Use of Modern teaching aids.
- Experts from IIT's, Industries & Govt. Agencies are invited to deliver special lectures.
- Special coaching facility for IES/ GATE exams in the institute.
- Necessary computing facilities are available at various laboratories of the department viz; Multimedia Laboratory, FAB Lab, Quantum Computing Laboratory, Material Testing Laboratory, State of the art 3D Printing and Additive Manufacturing, Kinesiology Lab, CNC Laboratory, Computer-Aided Design Laboratory CNC machines, 3D printers, Scanners, X-Ray machine, BIOPAC MP 150, 3D motion capture analysis system, Pulse Generator with ease Floating table top.

S.No.	Lab Name	List of Equipment
1	3D Printing and Additive Manufacturing Lab	Stratasys Fortus 400mc 3D Printer System, Ultimaker, Makerbot Replicator 2 Desktop 3D Printer, Mojo 3D Printer Desktop 3D Printer, 3D Scanner, etc
2	Hydraulics Lab	Centrifugal Pumps, Pelton Turbine, Francis, Kaplan Turbine, Submersible Pump, Sub-Sonic Wind Tunnel, Mouthpiece and Orifice Testing, V-Notch and Venturimeter, Orificemeter, etc
3	Heat Engines Lab	Skoda Diesel Engine (90 HP), 2- Stage Reciprocating Compressor, Morse Test (Fiat Petrol Engine), Skoda Diesel Engine (10 HP), Vortex Tube Apparatus, Kubota Petrol Engine, Injector Testing Equipment, Petrol Engine (Cut Section Model), Separating And Throttling Calorimeter, Rotary Compressor (Test Rig), Oil Expeller, Bio-Diesel Reactor, Bomb Calorimeter, etc
4	Refrigeration & Air Conditioning Lab	Air and Water Heat Pump Test Rig, Ice Plant Test Rig, Vapour Absorption Refrigeration System, Vapour Compression Cycle of Air Conditioner Test Rig, Cascade Refrigeration Test Rig, Charging Trolley.
5	Material Testing Lab	Computerised Universal Testing Machine (Shimadzu make), 100 Ton - Hydraulic Press (Santec make)
6	Metrology Lab	Profile Projector, Gear tooth vernier calliper, Tool makers microscope, bench center,
7	Automobile Lab	Petrol Engine Model, Battery/Coil Ignition System, Model of Chassis, Constant Mesh Gear Box, Steering System, Braking System, 2-Stroke Petrol Engine (Motorized), etc

#### **Facilities in the Department**

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8	Workshop	CNC Milling machine, Lathes, welding unit, carpentry shop, fitting shop, etc.
9	Kinesology Lab	BIOPAC MP 150, 3D motions capture analysis system, Pulse Generator with ease Floating table top

# New Facilities Created in the Department during the year

(a) FAB Lab

# **Ongoing Research Projects**

S. No.	Title	Agency	Period	Grant (Rs.in Lakh)
1.	Development of high strength Prosthetic Sockets through Additive Manufacturing	AICTE	2020-2023	18

# **Projects Sanctioned During the year**

Name of the Investigator	,	Funding Agency	Title of the project and duration (Start and end date	Amount sanctioned
Prof. Rahul Swarup Sharma	DEI/GBMF/(2142023)/270	MoE NMEICT	MoE Virtual Labs Extended 2023-2024	63 Lakh (Ongoing)

# **Patents Granted**

- "An Indian patent has been granted on "Method and system for making silicone washers and gaskets" on 22-09-2023 for a term of 20 years from 2020 in accordance with the provisions of the Patents Act, 1970, to Guru Ratan Satsangee, Saurabh Bhardwaj, Ishant Singhal, Ankit Sahai, and Rahul Swarup Sharma, Patent No. 453704"
- "An Indian patent has been granted on "System and method to simulate 3d printer machine" on 26-12-2023 for a term of 20 years from 2020 in accordance with the provisions of the Patents Act, 1970, to Saurabh Bhardwaj, Shivam Gautam, Guru Ratan Satsangee, Ishant Singhal, Ankit Sahai, and Rahul Swarup Sharma, Patent No. 488543"
- "An Indian patent has been granted on "Fused material deposition system for producing rapid patterns" on 26-12-2023 for a term of 20 years from 2020 in accordance with the provisions of the Patents Act, 1970, to Pushpendra

Yadav, Saurabh Bhardwaj, Shivam Gautam, Ankit Sahai, and Rahul Swarup Sharma, Patent No. 489145"

- "An Indian patent has been granted on "Method and system for in-situ fabrication of carbon nanotubes blended thermoplastics parts" on 28-12-2023 for a term of 20 years from 2022 in accordance with the provisions of the Patents Act, 1970, to Abhishek Raj, Pushpendra Yadav, Ankit Sahai, and Rahul Swarup Sharma, Patent No. 490716"
- "An Indian patent has been granted on "Foldable freeform fabricator" on 29-12-2023 for a term of 20 years from 2020 in accordance with the provisions of the Patents Act, 1970, to Shailendra Shakya, Shivam Gautam, Sumit Agarwal, Saurabh Bhardwaj, Prashant Pachauri, Pushpendra Yadav, Ishant Singhal, Ankit Sahai, and Rahul Swarup Sharma, Patent No. 491944"
- "An Indian patent has been granted on "A design system for emulating sand testing equipment and the solidification of metals" on 24-01-2024 for a term of 20 years from 2023 in accordance with the provisions of the Patents Act, 1970, to Bobby Tyagi, Abhishek Raj, Lakshya Bhardwaj, Anand Swarup Chandrakar, Gargi Malik, Hritav Gupta, Pohap Kumar Layal, Arsh Rajora, Ashish Goyal, Ankit Sahai, and Rahul Swarup Sharma, Patent No. 502934"
- "An Indian patent has been granted on "Portable precision silent cooling system for storage of vaccine vials" on 04-04-2024 for a term of 20 years from 2020 in accordance with the provisions of the Patents Act, 1970, to Anami Saggar, Guru Ratan Satsangee, Ankit Sahai, and Rahul Swarup Sharma, Patent No. 531774"
- "An Indian patent has been granted on "System and method for fabricating injected printed circuit board (ipcb) using matex fabricator and metal injection tool" on 08-04-2024 for a term of 20 years from 2023 in accordance with the provisions of the Patents Act, 1970, to Bobby Tyagi, Pohap Kumar Layal, Abhishek Raj, Hritav Gupta, Arsh Rajora, Ashish Goyal, Lakshya Bhardwaj, Anand Swarup Chandrakar, Guru Ratan Satsangee, Ankit Sahai, and Rahul Swarup Sharma, Patent No. 532232"
- An Indian patent has been granted on "Portable fixtures for holding flat metal plates in a tool post of a conventional lathe machine for welding" on 14-03-2024 for a term of 20 years from 2019 in accordance with the provisions of the Patents Act, 1970, to Atul Suri, K. Hans Raj and Rajat Setia, Patent No. 525272
- An Indian design patent has been granted on "Sediment accumulator water tank" on 5<sup>th</sup> July 2024, to Ayushman Parashar, Ashutosh Sharma, Manoj Kumar, Aditya Sharma, for a term of 10 years in pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001, Patent No. 417341-001.

#### Patents Applied

- Smart lavatory urine examination system (slues), Inventors: Abhishek Raj, Bobby Tyagi, Anand Swarup Chandrakar, Prasun Dave, Gargi Malik, Hritav Gupta, Lakshya Bhardwaj, Pohap Kumar Layal, Arsh Rajora, Ashish Goyal, Akash Kumar, Ankit Sahai, Rahul Swarup Sharma, Patent Application No. 202311026633
- A method and system for fabricating customized shaped and sized electrochemical energy storage (ees), Inventors: Akash Jain, Abhishek Raj, Bobby Tyagi, Ankit Sahai, Rahul Swarup Sharma, Patent Application No. 202311045707
- Amputee leftover limb stabilisation (allis) device, Inventors: Bobby Tyagi, Abhishek Raj, Deepansh Dhall, Dhruv Jain, Akash Jain, Tapish Raj, Manan Jain, Ashish Sharma, Ankit Sahai, Rahul Swarup Sharma, Patent Application No. 202311048777
- Polymer filament fabrication system for in-situ fabrication and spooling of reinforced filament Inventors: Abhishek Raj, Bobby Tyagi, Deepansh Dhall, Dhruv Jain, Akash Kumar, Sajal Bhaskar, Mahima Tyagi, Ankit Sahai, Rahul Swarup Sharma, Patent Application No. 202311060871
- A system and method for real-time ocular ailment diagnosis and visual strain assessment, Inventors: Abhishek Raj, Bobby Tyagi, Atam Swaroop, Pratham Agarwal, Manan Jain, Achint Kumar, Mridul Singhal, Sajal Jindal, Mridul Goyal, Tushar Jindal, Sajal Bhaskar, Ankit Sahai, Rahul Swarup Sharma, Patent Application No. 202411013928
- Method and system for hydration status determination, Inventors: Bobby Tyagi, Abhishek Raj, Mridul Singhal, Achint Kumar, Manan Jain, Atam Swaroop, Pratham Agarwal, Sajal Jindal, Mridul Goyal, Tushar Jindal, Sajal Bhaskar, Ankit Sahai, Rahul Swarup Sharma, Patent Application No. 202411019039
- Smart soil fertility testing device for precision agriculture, Inventors: Vikas Verma, Divyanshu Goyal, Vishal Singh, Abhishek Raj, Manoj Kumar, Dr. Aditya, Patent Application No. 202411029986

#### Faculty/Staff Achievements/ Awards

1) Dr. Rahul Swarup Sharma conducted following Virtual Labs outreach workshops along with Sh. Jinshad U, Civil Engineering Department.

Cochin University of Science and Technology (CUSAT) Ernakulam	16-10-2023
Federal Institute of Science and Technology (FISAT) Ernakulam	17-10-2023
Thrissur Government Engineering College	18-10-2023
Al Ameen Engineering College	18-10-2023

MEA Engineering College	19-10-2023
Kerala Government Polytechnic College, Perinthalmanna	19-10-2023
Calicut Government Engineering College, Kozhikode	20-10-2023
Kerala Government Polytechnic College, Kozhikode	20-10-2023

- 2) Dr. Rahul Swarup Sharma participated in several significant events showcasing his academic and professional contributions. He attended the National Virtual Labs 3<sup>rd</sup> Mid-Term Evaluation Meeting on November 16, 2023, at IIT Delhi, and later participated in the 4<sup>th</sup> Mid-Term Evaluation Meeting on June 10, 2024, held online. Additionally, Dr. Sharma was invited to attend the prestigious International Climate Summit (ICS 2023) held on September 14–15, 2023, at Vigyan Bhavan, New Delhi, highlighting his engagement with global climate and technological initiatives.
- 3) Dr. Atul Suri completed a refresher course on "Advanced Research Methodology" with A+ grade from Ramanujan College, University of Delhi, held from 21.07.2023 to 04.08.2023 in online mode.
- 4) Dr. Kumar Ratnakar completed a refresher course on "Disaster Management" with A+ grade from Aligarh Muslim University Aligarh in online mode.
- 5) Dr Ankit Sahai was the Convener 46<sup>th</sup> National Systems Conference (NSC) June 2023.

Reviewer for Journals - Journal of Manufacturing Process, Journal of Polymer Research, Progress in Additive Manufacturing, Additive Manufacturing, Journal of Institution of Engineers C&D, Journal of ChemElectroChem, Journal of Natural Fibres. Certificate of Appreciation received for contribution as Reviewer in 2<sup>nd</sup> International Conference on Aspects of Materials and Mechanical Engineering (ICMME-2023) jointly organized by the Department of Mechanical Engineering, GLA University, Mathura (India) and UFRGS, Porto Alegre (Brazil) held on 13th – 14th October 2023.

Dr. Ankit Sahai served as the Convener for the 46<sup>th</sup> National Systems Conference (NSC) held in June 2023. Dr. Sahai has been an active reviewer for prestigious journals, including the Journal of Manufacturing Processes, Journal of Polymer Research, Progress in Additive Manufacturing, Additive Manufacturing, Journal of the Institution of Engineers (C&D), ChemElectroChem, and Journal of Natural Fibres. In recognition of his contribution as a reviewer, he received a Certificate of Appreciation for his role in the 2<sup>nd</sup> International Conference on Aspects of Materials and Mechanical Engineering (ICMME-2023), jointly organized by the Department of Mechanical Engineering, GLA University, Mathura (India), and UFRGS, Porto Alegre (Brazil), held on October 13–14, 2023.

6) Dr Anurag Gupta was the Session Chair in an International Conference (ICMME-2023) jointly organized by Department of Mechanical Engineering,

GLA University, Mathura (India) and UFRGS, Porto Alegre (Brazil) held on 13th – 14th October 2023.

7) Dr. Vishakha Baghel served as the Session Chair at the International Conference on Future Learning Aspects of Mechanical Engineering (FLAME-2024), held at Amity University, Noida, Uttar Pradesh, from July 31 to August 2, 2024. On February 14, 2024, she acted as the External Examiner for the Fluid Mechanics Lab at Aligarh Muslim University (AMU). As a committed researcher, Dr. Baghel is also a reviewer for the journal Applied Thermal Engineering (Elsevier). She attended the 8<sup>th</sup> National Workshop on Research Methodology in Fluid Mechanics, focusing on "Visualization of Fluid Flow and Temperature Distribution," organized by the Department of Mechanical Engineering, IIT Jodhpur, from July 12-15, 2023. Additionally, she participated in an online workshop on December 19, 2023, exploring the capabilities of COMSOL® software for modeling fluid flow, heat transfer, microfluidics, and multiphysics phenomena. Dr. Baghel also attended a twoday training session on the MY Bharat Portal for NSS Programme Officers, organized by the Ministry of Youth Affairs and Sports, Government of India, at Galgotias University, Greater Noida, Uttar Pradesh, on May 14–15, 2024.

#### **Students Achievements/ Awards**

The 2023-24 Mechanical Engineering Cooperative Education (Co-oP) internship batch, comprising 65 students, offered a diverse range of internships across various industries. Notable placements included Tata Cummins (9), Tata Motors (6), Maruti Suzuki (5), CBRI-IIT Roorkee (4), Honda Two Wheelers (3), DRDO (2), Microsoft (2), Crompton Greaves (4), mFilterIt (4), Air Flow (2), Cadence Design Systems (2), ADRDE (3), and others.

These internships provided students with valuable experiences in both core engineering and computer science-related fields. Fifteen students received stipends ranging from ₹3,000 to ₹12,500 per month, while the majority of remaining students were provided with lodging and food facilities by the companies. Faculty members were assigned to mentor each student, offering academic and professional support throughout the internship. This program allowed students to apply their academic knowledge in practical settings, gaining invaluable industry experience.

- Kushagra Saxena presented a paper at the International Conference on Advances in Multi-Material Additive Manufacturing (AiM AM-24), held at KITS, Coimbatore, Tamil Nadu, India, from April 3–5, 2024.
- Praval Pratap Singh also presented a paper at the International Conference on Advances in Multi-Material Additive Manufacturing (AiM AM-24) at KITS, Coimbatore, Tamil Nadu, India, from April 3–5, 2024.
- Deepansh Dhall presented a paper at the 3rd International Conference on Industry 4.0 and Advanced Manufacturing, organized by IISc Bangalore on January 11–12, 2024.

- Dhruv Jain also presented a paper at the \*3rd International Conference on Industry 4.0 and Advanced Manufacturing\*, held at IISc Bangalore on January 11–12, 2024.
- Deepansh Dhall, Dhruv Jain, Akash Kumar, Sajal Bhaskar, and Mahima Tyagi have submitted a patent titled "Polymer Filament Fabrication System for In-Situ Fabrication and Spooling of Reinforced Filament" with application number 20231106087.
- Deepansh Dhall, Dhruv Jain, Manan Jain, and Ashish Sharma have submitted a patent titled "Amputee Leftover Limb Stabilization Device" with application number 202311048777.
- Atam Swaroop, Pratham Agarwal, Manan Jain, Achint Kumar, Mridul Singhal, Sajal Jindal, Mridul Goyal, Tushar Jindal, and Sajal Bhaskar have submitted a patent titled "A System and Method for Real-Time Ocular Ailment Diagnosis and Visual Strain Assessment" with application number 202411013928.
- Mridul Singhal, Achint Kumar, Manan Jain, Atam Swaroop, Pratham Agarwal, Sajal Jindal, Mridul Goyal, Tushar Jindal, and Sajal Bhaskar have submitted a patent titled "Method and System for Hydration Status Determination" with application number 202411019039.
- Dheeraj, a final-year student, participated in the Central Zone Football Tournament held at IIMT Meerut in 2023.
- M. Sandeep Kumar, a final-year student, secured third place in the English Elocution competition at the intra-faculty level and also served as the Student Coordinator for NSC 2023.
- Guru Saran Anand, a third-year student, earned NCC B and C Certificates and received a 23-Para Army Attachment Para Camp Certificate.
- Samarth Jain presented a paper titled "Numerical Investigation of Methane Hydrogen Air Combustion in a Jet Engine Combustor" in an International Conference held at IIT Kanpur.
- Priyanshu Sharan, a final-year student, presented a paper titled "ML-Based Predictive Maintenance of Industrial Machines" at the National Conference on Emerging Trends in Science, Engineering, and Management (ETSEM 2024), organized by BSA College of Engineering and Technology, Mathura, on June 15, 2024.
- Sania Verma, a third-year student, received the Best Researcher Award at the G20 Symposium hosted by Graphic Era University, Dehradun, Uttarakhand, in 2023.
- Saloni Upadhyay, a third-year student, presented a paper titled "Harnessing EEG Signals to Detect Schizophrenia: A Deep Learning Approach" at the 4<sup>th</sup> International Conference of Computational Intelligence (ICCI 2023) in November 2023.

- Achint Kumar, a third-year student, presented a paper at the 1<sup>st</sup> International Conference on Artificial Intelligence, Advanced Materials, and Mechatronics Systems (AIAMMS-2023).
- Mahima Tyagi, a second-year student, was awarded a certificate for her effective coordination of a hackathon held on September 23, 2023.
- Anand Swaroop, a second-year student, participated in the UAV Drone Boot Camp at DEI and the Amrit Kaal Vimarsh: Vikashit Bharat @ 2047 seminar.
- Gauri, a first-year student, won a silver medal at Tech Venture 2024.
- Rahul Jaiswal, Shruti Goyal, and Yash Shakya collectively won a silver medal at Tech Venture 2024.

NAME	ROLL NO	YEA R	BRANCH SPECIALIZATIO N	CATEGOR Y	CATEGORY -WISE CUT OFF	GAT E COD E	GATE SCOR E	MARK S	ALL INDIA RANK
ARPIT KAPOOR	2002244	4 <sup>th</sup>	IE	GENERAL	30.5	IE	447	37.67	311
Prateek	2002275	$4^{th}$	CS	OBC	24.8	CS	690	58.8	1015
Ruchi	2002280	4 <sup>th</sup>	CORE	GENERAL	36.2	XE	438	42.67	1137
Aditya Upmanyu	2002234	4 <sup>th</sup>	CORE	GENERAL	36.2	XE	388	39	1517
Ashutosh Sharma	2002248	4 <sup>th</sup>	CS	GENERAL	37.1	DA	500	48	2210
Ruchi	2002280	$4^{th}$	CORE	GENERAL	28.6	ME	486	39.67	3399
AVANISH KUMAR	1901974	4 <sup>th</sup>	CORE	OBC	25.7	ME	416	34	5239
Ayush Shukla	2104374	3 <sup>rd</sup>	CORE	GENERAL	28.6	ME	412	33.67	5364
DEEPAK SINGH	2002255	4 <sup>th</sup>	CORE	OBC	25.7	ME	404	33	5615
Prateek	2002275	4 <sup>th</sup>	CS	OBC	33.3	DA	372	38.67	5637
Mayank Khatri	1905557	4 <sup>th</sup>	CS	GENERAL	27.6	CS	489	40.31	6031
Rishita Tripathi	2104405	3 <sup>rd</sup>	CORE	GENERAL	28.6	ME	355	29	7811
Aditya Upmanyu	2002234	4 <sup>th</sup>	CORE	GENERAL	28.4	ME	353	28.67	8452
Shivangi Gupta	1905691	4 <sup>th</sup>	CS	GENERAL	27.6	CS	389	31.19	13242
Jeevanshu	2104384	3 <sup>rd</sup>	CORE	SC	19	ME	281	23	13709
Mayank Singh	2104165	3 <sup>rd</sup>	CS	SC	18.4	CS	270	20.24	32270

# Mechanical Engineering students GATE qualified with all India Rank (2023-24)

# **Participation in National Level Hackathon**

A team from Dayalbagh Educational Institute (Deemed to be University), Dayalbagh, Agra-282005, got selected for the Grand Finale of Smart India Hackathon (SIH), an initiative by the Ministry of Education of India hosted at VNRVJ Institute of Engineering & Technology, Hyderabad on 19 and 20, December'23. The team comprised Atam Swaroop (Team Lead), Aarat Swaroop, Aarat Prasad, Gargi Yadav, Vanshika Rajpal, and Priyanshu Sharan, all students of Engineering Faculty, DEI, under the Mentorship of Ms. Manisha Gupta and Ms. Monika Singh, Faculty Members from Dept. of Physics and Computer Science, Faculty of Science, DEI.



# Workshops/Conferences/Seminars/Webinars Organized

- Mr Shrey Sahai Gupta, a Ph.D. student at the Department of Mechanical Engineering, Indian Institute of Science, Bangalore, Prime Minister Research Fellowship PMRF conducted seminars in area of Hydraulic Machines for his Teaching Assistantship (TAship) at Dayalbagh Educational Institute (DEI).
- 1. The Board of Studies meeting was held on 11th March 2024. Prof R Agarwal IIT Roorkee and Prof P Bhardwaj IIT BHU were experts.
- 2. The Faculty of Engineering, Dayalbagh Educational Institute Board of Studies meeting was held on 6<sup>th</sup> April 2024 at 11:00 AM. The meeting was held in Video Conferencing mode with the esteemed external experts:
  - ✓ Prof Prem Kumar Kalra, IIT Roorkee, External Expert
  - ✓ Prof J P Gupta, Bidhan Chandra Krishi Viswavidyalaya WB, External Expert
  - ✓ Prof Varun Sharma, IIT Roorkee, External Expert
  - ✓ Prof A K Sinha NIT Patna, External Expert

#### Workshops/Conferences/Seminars/Webinars/ Faculty Development Programme Attended

- 1. Bobby Tyagi presented paper a on "Enhancing Impact Performance of Fused Filament Fabricated Polymer Composites: An Experimental and Statistical Investigation" in the 3rd International Conference entitled "Industry 4.0 and Advanced Manufacturing" from January 11th - 12th, 2024, organized by IISc Bangalore.
- Bobby Tyagi presented paper a on "Revealing the Reinforcement Influence on Flexural Behaviour of Poly Lactic Acid Composites for Affordable and High-Performance Transtibial Prosthetic Socket" in the 3rd International Conference entitled "Industry 4.0 and Advanced Manufacturing" from January 11 - 12, 2024, organized by IISc Bangalore.
- 3. Tapish Raj presented a paper on "Investigating the tensile properties of graphene based PLA composite" in 1st International Conference on Advances

in Multi-Material Additive Manufacturing (AiM AM-24), KITS, Coimbatore, 3-5 April 2024.

- 4. P.Surat Prakash, Anurag Gupta, presented a research paper entitled, "Design Modification of Pneumatic Bearing Idler Rollers for Improving Performance" in an International Conference (ICMME-2023) jointly organized by Department of Mechanical Engineering, GLA University, Mathura (India) and UFRGS, Porto Alegre (Brazil) held on 13-4 October 2023.
- Abhishek Raj presented a paper Study on "Effects of additive manufacturing process conditions on part properties for engineering applications" in the 9<sup>th</sup> International & 30<sup>th</sup> All India Manufacturing Technology, Design and Research Conference from December 08 -10, 2023, organized by IIT (BHU) Varanasi.
- 6. Bobby Tyagi presented a paper on "Unleashing The Mechanical Characteristics of PLA-MWCNTS for Medical Advancements" in the 9<sup>th</sup> International & 30<sup>th</sup> All India Manufacturing Technology, Design and Research Conference from December 08 -10, 2023, organized by IIT (BHU) Varanasi.
- Akash Jain presented a paper on "Structural Behaviour of Reinforced Polymer Through Fused Filament Fabrication" in the 9<sup>th</sup> International & 30<sup>th</sup> All India Manufacturing Technology, Design and Research Conference from December 08 -10, 2023, organized by IIT (BHU) Varanasi.
- Tapish Raj presented a paper on "Evaluating the Influence of Infill Density for Impact Behaviour of Virgin PLA and its Composites" in the 9<sup>th</sup> International & 30<sup>th</sup> All India Manufacturing Technology, Design and Research Conference from December 08 -10, 2023, organized by IIT (BHU) Varanasi.
- Pratap Singh presented a paper on "A Comparative Study of Effects of Multiple Reinforcements Incorporated with Al-Si-Mg Alloy using Friction Stir Processing" in the 9<sup>th</sup> International & 30th All India Manufacturing Technology, Design and Research Conference from December 08 -10, 2023, organized by IIT (BHU) Varanasi.
- 10. Akash Jain presented a paper on "Structural Behaviour of Carbon Fibre Reinforced Poly-Ethylene Terephthalate Glycol by Fused Filament Fabrication" in the 46<sup>th</sup> (Inter) National Systems Conference from June 27-29, 2023, organized by DEI Agra.
- 11. Abhishek Raj presented a paper onStudy on "Parametric Effect of Low-Cost Extrusion Additive Manufacturing Technology (EAMT) on Properties of Domestic Parts" in the 46<sup>th</sup> (Inter) National Systems Conference from June 27 - 29, 2023, organized by DEI Agra.
- 12. Abhishek Raj presented paper on "Optimising the process parameters for Mechanical properties of acrylic butadiene styrene parts using Genetic Algorithms fabricated through the Additive Manufacturing process" in International Conference entitled Advancement in Materials Processing Technology (AMPT) from June 2 - 3, 2023 organized by NIT Jamshedpur

13. Kajal presented a paper entitled: "Fluid Flow CFD Analysis of Orifice Meter", 2<sup>nd</sup> International Conference on Thermo-Fluids and System Design (ICTFSD 2024) at BITS Mesra, Ranchi, Jharkhand (April 4 - 5, 2024).

# **Publications**

- Tyagi, B., Raj, A., Chandrakar, A. S., Sharma, G. S., Raj, T., Bhardwaj, L., Sahai, A., & Sharma, R. S. (2024). Fabrication of transfemoral prosthesis utilizing additive manufacturing and reverse engineering: A scoping review. International Journal of Interactive Design and Manufacturing. Springer.
- Tyagi, B., Raj, A., Gupta, H., Malik, G., Bhardwaj, L., Sharma, G. S., Uppukoden, J., Sahai, A., & Sharma, R. S. (2024). Modelling structural behaviour of the Cartesian, polar, and delta material extrusion printers by finite element analysis. Journal of the Institution of Engineers (India): Series C. Springer Nature.
- 3. Singhal, I., Satsangee, G. R., Bhardwaj, L., Sharma, G. S., Chandrakar, A. S., Gupta, H., Malik, G., Tyagi, B., Sahai, A., & Sharma, R. S. (2024). 3D printing virtual simulation lab. IEEE Transactions on Learning Technologies.
- 4. Raj, T., Tyagi, B., Jain, A., Sahai, A., & Sharma, R. S. (2024). Investigating the influence of annealing and nozzle diameter on tensile strength of polyethylene terephthalate glycol composites. Journal of Thermoplastic Composite Materials. SAGE Publications.
- Raj, T., Jain, A., Saxena, K., Singh, P. P., Sahai, A., & Sharma, R. S. (2024, April 3– 5). Analysing the flexural behaviour of additively manufactured PLA composite. Paper presented at the 1st International Conference on Advances in Multi-Material Additive Manufacturing (AiM AM-24), KITS, Coimbatore, Tamil Nadu, India.
- Raj, T., Jain, A., Saxena, K., Singh, P. P., Sahai, A., & Sharma, R. S. (2024, April 3– 5). Investigating the tensile properties of graphene-based PLA composites. Paper presented at the 1st International Conference on Advances in Multi-Material Additive Manufacturing (AiM AM-24), KITS, Coimbatore, Tamil Nadu, India.
- 7. Raj, T., Jain, A., Raj, A., Tyagi, B., Sahai, A., & Sharma, R. S. (2024). Infill strategies for improving the impact behavior of polymer composites utilizing statistical and thermal analysis. International Journal of Polymer Analysis and Characterization. Taylor & Francis.
- 8. Tyagi, B., Dixit, K., Sahai, A., & Sharma, R. S. (2024). Characterization of flexural and compressive behavior in polylactic acid composites for low-cost transtibial prosthetic applications: Influence of reinforcements. Journal of Applied Polymer Science. Wiley.
- 9. Tyagi, B., Raj, A., Sahai, A., & Sharma, R. S. (2024). Enhancing compressive strength in polymer composites utilized for application of foot prostheses. Journal of Polymer Research. Springer Nature.

- 10. Raj, A., Chandrakar, A. S., Tyagi, B., Jain, A., Gupta, H., Bhardwaj, L., Layal, P. K., Sahai, A., & Sharma, R. S. (2024). Advancements in material extrusion-based three-dimensional printing of sensors: A review. International Journal of Interactive Design and Manufacturing. Springer Nature.
- 11. Jain, A., Upadhyay, S., Sahai, A., & Sharma, R. S. (2023). Comparing the flexural and morphological properties of dissimilar FFF-fabricated polymer composites. Journal of Thermoplastic Composite Materials. SAGE.
- 12. Chaturvedi, D. K., & Suri, A. (2024). Modeling and simulation of friction stir welding process: A neural approach. International Journal of Industrial Optimization.
- 13. Tyagi, B., Dhall, D., Jain, D., Sahai, A., & Sharma, R. S. (2024, January 11–12). Revealing the reinforcement influence on flexural behaviour of poly lactic acid composites for affordable and high-performance transtibial prosthetic socket. Paper presented at the 3rd International Conference on Industry 4.0 and Advanced Manufacturing, IISc Bangalore, India.
- 14. Tyagi, B., Dhall, D., Jain, D., Sahai, A., & Sharma, R. S. (2024, January 11–12). Enhancing impact performance of fused filament fabricated polymer composites: An experimental and statistical investigation. Paper presented at the 3rd International Conference on Industry 4.0 and Advanced Manufacturing, IISc Bangalore, India.
- 15. Jain, A., Sahai, A., & Sharma, R. S. (2023). Fracture morphology and strength characteristics of poly-lactic acid and polyethylene terephthalate glycol composites combined with Taguchi method and response surface methodology. Journal of Thermoplastic Composite Materials. SAGE Journals.
- 16. Raj, A., Tyagi, B., Goyal, A., Sahai, A., & Sharma, R. S. (2023). Comparing the predictability of soft computing and statistical techniques for the prediction of tensile strength of additively manufactured carbon fiber polylactic acid parts. Journal of Materials Engineering and Performance. Springer Nature.
- 17. Raj, A., Tyagi, B., Jain, A., Sahai, A., & Sharma, R. S. (2023, December 8–10). Study on effects of additive manufacturing process conditions on part properties for engineering applications. Paper presented at the 9th International & 30th All India Manufacturing Technology, Design and Research Conference, IIT(BHU), Varanasi, India.
- 18. Jain, A., Raj, T., Raj, A., Tyagi, B., Sahai, A., & Sharma, R. S. (2023, December 8– 10). Evaluating the influence of infill density for impact behaviour of virgin PLA and its composites. Paper presented at the 9th International & 30th All India Manufacturing Technology, Design and Research Conference, IIT(BHU), Varanasi, India.
- 19. Tyagi, B., Raj, A., Jain, A., Raj, T., Sahai, A., & Sharma, R. S. (2023, December 8– 10). Unleashing the mechanical characteristics of PLA-MWCNTs for medical advancements. Paper presented at the 9th International & 30th All India Manufacturing Technology, Design and Research Conference, IIT(BHU), Varanasi, India.

- 20. Singhal, I., Tyagi, B., Raj, A., Jain, A., Kapoor, S., Sahai, A., & Sharma, R. S. (2023). Analysis of multiple print-head displacement mechanisms in 3D space for material extrusion machine. 3D Printing and Additive Manufacturing.
- 21. Singh, P., Sahai, A., & Sharma, R. S. (2023). Insights into the friction stir processing of fused filament fabricated polymers with multiple reinforcements. Journal of Polymer-Plastics Technology and Materials. Taylor & Francis.
- 22. Jain, A., Kumar, S., Singh, A., Sahai, A., & Sharma, R. S. (2023). Comparative study of impact behaviour of fused filament fabrication-printed polylactic acid composites. NanoWorld Journal, 9.
- 23. Tyagi, B., Sahai, A., & Sharma, R. S. (2023). Augmenting the flexural strength of polymer composites for stronger and more durable prosthetic sockets. Polymer Composites. Wiley.
- 24. Singh, P., Sahai, A., & Sharma, R. S. (2023). Friction stirs processing of multiwalled carbon nanotubes reinforced Al-Mg-Si alloy composites. Journal of the Institution of Engineers (India): Series C, 104(4), 749–766. Springer.
- 25. Jain, A., Sahai, A., & Sharma, R. S. (2023). Enhancing the mechanical behaviour of fused filament fabricated carbon fibre reinforced poly-lactic acid. Institution of Engineers (India): Series D. Springer. https://doi.org/10.1007/s40033-023-00498-3
- 26. Raj, A., Yadav, P., Tyagi, B., Sahai, A., & Sharma, R. S. (2023, July 18–19). Optimizing the process parameters for mechanical properties of acrylic butadiene styrene parts using genetic algorithms fabricated through the additive manufacturing process. Paper presented at the 3rd International Conference on Advancement in Materials Processing Technology (AMPT-2023).
- 27. Tyagi, B., Dubey, D., Sahai, A., & Sharma, R. S. (2023). Mechanical properties evaluation of FFF-printed ABS samples based on different process parameters combined with ANOVA and regression analysis. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 237(18), 4256–4270
- 28. Satsangee, G. R., Tyagi, B., Angajala, D. K., Sahai, A., & Sharma, R. S. (2023). Prosthetics advice, design, and fabrication using digital manufacturing systems for improved healthcare systems. Parit Journal of System Science and Engineering.
- 29. Kar, A., Sharma, A., & Kumar, S. (2024). A critical review on recent advancements in aluminium-based metal matrix composites. Crystals, 14(5), 412.

#### e-Book Chapters

• Angajala, D. K.; Sahai, A.; Sharma, R. S. Additive Manufacturing of Customized, Accessible, and Affordable Lower Limb Prosthetics in India: Case Study. In

Advances in Additive Manufacturing: Artificial Intelligence, Nature-Inspired, and Biomanufacturing (A volume in Additive Manufacturing Materials and Technologies); Elsevier, 2023; pp 493–500. ISBN 9780323918343. DOI: 10.1016/B978-0-323-91834-3.00035-1

 Kumar S., Sharma A., Philip J. T. Role and capability of the Internet of Things in additive manufacturing and its application regimes. In Solid State Additive Manufacturing, 1st Ed. 2023, CRC Press, 169-183, ISBN 9781032616025 (eBook) (<u>https://doi.org/10.1201/9781032616025</u>)

# Encyclopedia article

• Lithium-Ion Battery Anodes Produced from Waste Plastic Bags. In AccessScience; Access Science Eds.; McGraw-Hill Education, 2019. DOI: 10.1036/1097-8542.BR0301191 (last reviewed March 2019).

#### **Placements**

- 1. Avanish Kumar (Roll No: 1901974), was placed in GSAI with a CTC of 2.6 LPA.
- 2. Sameer Sharma (Roll No: 1905407), was placed in Relaxo with a CTC of 5 LPA.
- 3. Kajal (Roll No: 1905426), was placed in Mahindra & Mahindra with a CTC of 4.2 LPA.
- 4. Amrit Satsangi (Roll No: 1905530), was placed in Volvo Eicher with a CTC of 4.6 LPA.
- 5. Mayank Khatri (Roll No: 1905557), was placed in MfilterIt with a CTC of 4 LPA.
- 6. Varsha Dhakre (Roll No: 1905947), was placed in Escorts Kubota with a CTC of 5 LPA.
- 7. Anjali Rathore (Roll No: 1905971), was placed in SMS GROUP with a CTC of 5.5 LPA.
- 8. Ayush Pathak (Roll No: 2001973), was placed in Torrent Gas with a CTC of 4.25 LPA.
- 9. Pushpendra Kumar (Roll No: 2002008), was placed in Wabag with a CTC of 5 LPA.
- 10. Rishabh Verma (Roll No: 2002011), was placed in CSV Trade Trails with a CTC of 6 LPA.
- 11. Agam (Roll No: 2002034), was placed in CG Power with a CTC of 4.5 LPA.
- 12. Chirag Suri (Roll No: 2002041), a Male student from the Mechanical Core branch, was placed in JSW ENERGY with a CTC of 9.5 LPA.
- 13. Kushagra Saxena (Roll No: 2002057), specializing in Mechanical Computer Science, was placed in Torrent Gas with a CTC of 4.25 LPA.
- 14. Sonu Chaudhary (Roll No: 2002088), specializing in Mechanical Computer Science, was placed in Vishvaraj Pvt Ltd with a CTC of 5 LPA.

- 15. Shobhit Saxena (Roll No: 2002216), from the Mechanical Core branch, was placed in JSW ENERGY with a CTC of 9.5 LPA.
- 16. Aditya Sharma (Roll No: 2002231), specializing in Mechanical Industrial Engineering, was placed in H.K Rolling Mills Mumbai with a CTC of 5 LPA.
- 17. Aditya Upmanyu (Roll No: 2002234), from the Mechanical Core branch, was placed in Volvo Eicher with a CTC of 4.6 LPA.
- 18. Akash Rathor (Roll No: 2002235), specializing in Mechanical Industrial Engineering, was placed in Mahindra & Mahindra with a CTC of 4.2 LPA.
- 19. Aman Singh Tomar (Roll No: 2002237), specializing in Mechanical Computer Science, was placed in Torrent Gas with a CTC of 4.25 LPA.
- 20. Amrit Tiwary (Roll No: 2002238 specializing in Mechanical Computer Science, was placed in Neenopal with a CTC of 1.8 LPA.
- 21. Anjali Yadav (Roll No: 2002239), specializing in Mechanical Computer Science, did not have a company listed.
- 22. Anshul Agarwal (Roll No: 2002240), specializing in Mechanical Computer Science, was placed in JBM Electric with a CTC of 4 LPA.
- 23. Arpit Kapoor (Roll No: 2002244), specializing in Mechanical Industrial Engineering, was placed in Escorts Kubota with a CTC of 5 LPA.
- 24. Ashish Kumar Bilatiya (Roll No: 2002246), from the Mechanical Core branch, was placed in Volvo Eicher with a CTC of 4.6 LPA.
- 25. Ashish Singh (Roll No: 2002247), specializing in Mechanical Computer Science, was placed in JBM Electric with a CTC of 4 LPA.
- 26. Ayush Srivastava (Roll No: 2002252), specializing in Mechanical Computer Science, was placed in Torrent Gas with a CTC of 4.25 LPA.
- 27. Ayushman Parashar (Roll No: 2002253), specializing in Mechanical Computer Science, was placed in TCE with a CTC of 4.5 LPA.
- 28. Deepa Kumari (Roll No: 2002254), specializing in Mechanical Computer Science, was placed in Polycab with a CTC of 7 LPA.
- 29. Deepak Singh (Roll No: 2002255), from the Mechanical Core branch, was placed in Escorts Kubota with a CTC of 5 LPA.
- 30. Dheeraj (Roll No: 2002257), from the Mechanical Core branch, was placed in Mahindra & Mahindra with a CTC of 4.2 LPA.
- 31. Divyansh Singh (Roll No: 2002258), specializing in Mechanical Computer Science, did not have a company listed.
- 32. Divyanshu Goyal (Roll No: 2002259), specializing in Mechanical Computer Science, was placed in Genisup India with a CTC of 4.5 LPA.
- 33. Hansini Narain (Roll No: 2002261), specializing in Mechanical Computer Science, was placed in Polycab with a CTC of 7 LPA.

- 34. M Sandeep Kumar (Roll No: 2002267), from the Mechanical Core branch, was placed in Wabag with a CTC of 5 LPA.
- 35. Mukul Kumar Yadav (Roll No: 2002269), specializing in Mechanical Computer Science, was placed in CSV Trade Trails with a CTC of 6 LPA.
- 36. Namit Kumar (Roll No: 2002270), from the Mechanical Core branch, was placed in Escorts Kubota with a CTC of 5 LPA.
- 37. Prasun Dave (Roll No: 2002274), from the Mechanical Core branch, was placed in Wabag with a CTC of 5 LPA.
- 38. Pratyaksh Suri (Roll No: 2002276), specializing in Mechanical Computer Science, was placed in Ivalua Pune with a CTC of 8.5 LPA.
- 39. Prinsh Pratap Singh (Roll No: 2002278), from the Mechanical Core branch, was placed in Torrent Gas with a CTC of 4.25 LPA.
- 40. Ruchi (Roll No: 2002280), from the Mechanical Core branch, was placed in JSW ENERGY with a CTC of 9.5 LPA.
- 41. Sakshi (Roll No: 2002282), specializing in Mechanical Industrial Engineering, was placed in JSW ENERGY with a CTC of 9.5 LPA.
- 42. Saurabh (Roll No: 2002284), specializing in Mechanical Computer Science, was placed in GSAI with a CTC of 2.6 LPA.
- 43. Utkarsh Kumar (Roll No: 2002290), from the Mechanical Core branch, was placed in JSW STEEL with a CTC of 9.5 LPA.
- 44. Varsha Kardam (Roll No: 2002291), from the Mechanical Core branch, was placed in Volvo Eicher with a CTC of 4.6 LPA.
- 45. Vikas Verma (Roll No: 2002292), specializing in Mechanical Computer Science, was placed in Genisup with a CTC of 4.5 LPA.
- 46. Vishal Gupta (Roll No: 2002295), specializing in Mechanical Computer Science, was placed in Escorts Kubota with a CTC of 5 LPA.

# Faculty of Science

The erstwhile REI Degree College which was affiliated to Agra University became the part of Dayalbagh Educational Institute (Deemed University) in 1981 as Faculty of Science. Faculty of Science is an integrated unit of the following Departments:

- 1. Agriculture Science (erstwhile Department of Botany)
- 2. Chemistry
- 3. Mathematics
- 4. Physics & Computer Science
- 5. Zoology

The faculty has a focused academic programme with highly qualified faculty and strong commitment towards excellence in teaching and research in areas relevant to the modern society. It is equipped with a wide range of sophisticated experimental facilities to support the academic activities including research. Faculty departments receive grants under SAP, FIST, DRS and INSPIRE programmes besides research grants from agencies such as UGC, CSIR, DST, BRNS, AICTE, DRDO, etc. There are several MoUs and International Research Collaborations. Recently, Biodiversity Park, Security & Surveillance Network and 5G labs have been established.

The faculty offers Undergraduate programmes (BSc Honours) in (1) Applied Botany Science (2) Botany (3) Chemistry (4) Mathematics (5) Physics (6) Zoology (7) Computer science (8) Economics and (9) Psychology and Postgraduate (M. Sc.) programmes in M. Sc. (Botany/Botany (Plant & Microbial Biotechnology), Chemistry, Mathematics/ Mathematics (Computer Applications), Physics/Physics (Electronics)/ Physics (Computer Science) and Zoology. The faculty also offers several Integrated programmes like Integrated B. Sc. (Computer Science) Hons., M. Sc. (Comp. Sc.), M. Tech. (Engg. Systems) with specialization in Computer Science. PG Diploma in Computer Science and Applications [PGDCSA], PG Diploma in Big Data, Logistics and Operations Research [PGDBD], Doctor of Philosophy (Ph. D.) programme are available in Botany, Chemistry, Mathematics, Zoology, Physics and Computer Science. The faculty also offers B. Voc. Programmes.

# Department of Agriculture Science erstwhile Department of Botany

Department of Agriculture Science earlier known as the Department of Botany, was established in 1970, as part of R.E.I. degree college and affiliated to Agra University. In 2023, Botany Department was renamed as Department of Agriculture Science. It is strongly committed towards hi-tech research that is relevant to the society, especially the farmers. The present faculty strength is 23.

The Department offers the following programmes

• B.Sc. in Botany; Agriculture and Applied Botany Honours

- M.Sc. in regular Botany and Specialization in Plant and Microbial Biotechnology
- B.Voc. in Dairy Technology; Agricultural Technology
- M.Voc. In Dairy Technology
- Modular course in Mushroom Cultivation and Certificate course in Agriculture Science
- PG Diploma in Environment & Green Technology
- Ph.D.

At the undergraduate level the department offers Work Experience Courses on

- 1. Maintenance of Botanical Gardens
- 2. Dairy Products
- 3. Modern Crop Production
- 4. Protein Production Technology: Mushroom & Spirulina Cultivation and
- 5. Cell & Molecular Techniques

The Botany Department maintains a Botanical Garden in Science Faculty, a Biodiversity Park in REI Intermediate College, a Medicinal and Herbal Garden in Dairy Campus, a Fruit orchard at Seminar Hall Complex and a multi-dimensional Phyto-Diversity Park with Conservatory for local medicinal plants, fruit orchard, and plants for essential oil at Bahadurpur and a Fruit Orchard and Herbal Garden at Himachal Pradesh.

The thrust areas of research of the department are Microbiology, Environment and Ecosystem studies, Plant Biotechnology, Plant Tissue Culture, Plant Molecular Biology, Virology, Phycology, Biodiversity Parks and Conservation, Natural Products and Agriculture. The department has well equipped Plant Biotechnology Lab, Dairy Lab: Milk Section, Dairy Lab with a Butter Section, Digital Soil Testing lab and instrumental facilities like Plant Growth Chamber, Semi-automatic Microtome, Muffle Furnace, DNA Amplifier, Flame Photometer, Cooling Centrifuge, Rota-evaporator and Clevenger Apparatus.

The department has firm and active international and national collaborations with several Universities and Research Institutes like the Department of Agriculture, Michigan State University, USA, University of Arkansas, USA, Kiel University, Germany, Dr. Y.S. Parmar Agricultural University for Horticulture & Forestry, Nauni, H.P., G.B. Pant University of Agriculture and Technology, Pant Nagar Uttarakhand, India, Jain Irrigation, Jalgaun, Maharashtra, Beej Sheetal Pvt. Ltd., Jalna, Maharashtra, Aligarh Muslim University, Aligarh, Bhabha Atomic Research Centre, Mumbai and Indian Agriculture Research Institute, New Delhi and Saveer Biotech, Delhi.

#### **Thrust Areas of Research**

The research areas encompass a diverse range of fields, including bioprospecting of endophytes, bioremediation, and ethnobotany, which focus on exploring natural

resources and their sustainable applications. Microbiology and phycology delve into the study of microorganisms and algae, respectively, highlighting their ecological and industrial significance. Plant and environmental biotechnology, alongside plant molecular biology, address advancements in genetic engineering and biotechnological approaches to improve plant productivity and environmental sustainability. Plant pathology, physiology, and biochemistry investigate plant diseases, physiological processes, and biochemical pathways essential for growth and stress tolerance. The field of plant tissue culture emphasizes innovative techniques for propagating and conserving plant species, particularly medicinal plants. Additionally, research in smart agriculture and seed technology focuses on enhancing agricultural practices through technology and improving seed quality for better crop yields. Finally, waste management and conservation efforts contribute to sustainable environmental practices, ensuring the effective utilization of resources and the preservation of biodiversity.

#### **Salient Features of the Department**

- Agriculture Science Department apart from running various academic courses; is also helping the Institution in maintaining greenery and is playing a major role as conservators of nature and in restoring Biodiversity.
- Developed and monitored more than 200 acres of land and have planted more than one lakh plants of different varieties, in these sites.
- Helping the farmers through Fortnightly Agro clinic
- Extraction of floral water; essential oil and other natural products from Botanicals
- Through steel slag waste, department is also making cost effective fertilizers. Various biofertilizers like Azolla; vermicomposting etc. are also being made
- Development of Bioplastics through waste materials like hair; pressed oil cake and from cow dung is also under process.
- Work is being carried out in Polyhouses, under Smart Agriculture and Precision Farming.
- Mushroom cultivation is also being done.
- Work on Synthetic Biology and Bioinformatics is also being carried out.
- Botany department as conservators of nature:
  - ✓ Gardens maintained at Faculty level
  - ✓ Maintenance of Botanical garden in Science faculty
  - ✓ Development of Biodiversity Park in R.E.I.
  - ✓ Development of Medicinal and Herbal garden in Dairy Campus

 $\checkmark$  Development of Recreation cum Fruit orchard at Seminar Hall Complex.

✓ Development of biodiversity park at Shanti Nagar, Khasra-359

- ✓ Development of multi-dimensional Phyto diversity Park with conservatory for local medicinal plants; Fruit orchard and plants for essential oil at Bahadurpur
- ✓ Development of Fruit orchard and Herbal garden at Himachal Pradesh

#### New Facilities Created in the Department

- Cold Chambers facility for Mushroom cultivation in collaboration with CART, DEI
- Hydroponics cultivation
- Polyhouse cultivation

#### **Facilities in the Department**

The department is equipped with MP-AES (Microwave Plasma-Atomic Emission Spectroscopy), HPLC (High performance liquid Chromatography), Ultra filtration unit (MiliQ Water), IRGA (Infra-Red Gas Analyzer), PCR (Normal), RT-PCR (Real Time PCR), Lyophilizer, ELISA Reader, UV-Vis Double Beam Spectrophotometer, Deep Freezers, Clevenger, Cooling Centrifuge, Electroporator, Flame Photometer, Plant Growth Chamber, Gel-Electrophoresis, Sonicator, STFR Shaker, Fluorescence microscope, UV- Transilluminator, Soxhlet Apparatus, MilkoScan, Milipore membrane filtration meter, Tempo Filler & Reader, VIDAS, Smasher, Bio-Safety Cabin, BOD Incubator, Luminometer (Ensure of Hygiena), Microtome, Extenso (Antibiotic residue testing).

#### **Ongoing Research Projects**

- A project titled *Button and Oyster Mushroom Cultivation Demonstration for Large-Scale Adoption by the Farmers of Agra Region* is being pursued with funding from NABARD. The project, with a total funding of ₹21,78,000, aims to promote mushroom cultivation among farmers in the Agra region. The project duration is from March 2024 to March 2026. The implementing agency involves PI Dr. Vijay Kumar Dalal and Co-PI Dr. S. K. Soni, with the partner institute represented by PI Dr. Usha Kalidindi and Co-PI Dr. Bhupinder Singh.
- The Development of Steel Slag-Based Cost-Effective Eco-Friendly Fertilizers for Sustainable Agriculture and Inclusive Growth project, funded by the Ministry of Steel and Steel Industry, seeks to create environmentally friendly fertilizers. The project, which began in September 2021 and will run until August 2024, has received total funding of ₹75,23,300. The principal investigator is Dr. Akhilesh Kumar, with Co-PI Dr. Rajiv Ranjan.
- A project entitled, *Development of Agriculture and Industrial Waste-Based Formulation to Be Used as Fertilizer for Sustainable Agriculture*, has been granted ₹10,00,000 under funding [No.F.30-560/2021(BSR)]. This project, led by PI Dr. Akhilesh Kumar, spans from December 8, 2021, to December 7, 2023, focusing on converting agricultural and industrial waste into sustainable fertilizer formulations.

• The project *Socio-Economic Empowerment of the Tribes in the Rajaborari Estate, Madhya Pradesh, Through Scientific and Technological Interventions* aims to improve the living standards of tribal communities through technology-driven solutions with Dr. Rajiv Ranjan and Dr. Prem Saran Tirumalai as Co-Investigators.

## Patent Granted

• A patent on "Low Fat Cum Sugar Herbal Lemongrass Flavoured Milk" was published by Mogla Achal Maharaj Kishore, Devendra Kumar Chaturvedi, Soami Piara Satsangee, and Akhilesh Kumar. The patent application number for this innovation is 202211072803.

#### **Patent Filed**

• A patent, titled "A Method of Preparing Vermicompost from Pressmud and Spent Floral Waste and Vermicompost Obtained Thereof," was filed by Akhilesh Kumar, Rajat Pratap Singh, Devendra Arya, and Sujata Shekhar.

#### **Copyrights Granted**

• Dr. Prem Saran Tirumalai holds the copyright for "CFUCalc," an Android and iOS-based application software. The copyright diary number for this software is SW-17006/2023.

#### Faculty Achievements/ Awards/ Recognitions

- Vijay Kumar Dalal has contributed as a peer reviewer for several renowned journals. He has reviewed articles for *Food & Function*, (ISSN 2042-6496), *Biotech* (eISSN 2190-5738), reviewing three articles. He has also peer-reviewed three articles for *Photosynthetica* (eISSN 1573-9058), and *Journal of Plant Biochemistry and Biophysics (eISSN 0974-1275)*, Additionally, Dr. Dalal has served as a reviewer for *JSM Environmental Science & Ecology* (ISSN: 2333-7141), *Uttar Pradesh Journal of Zoology* (ISSN: 0256-971X, MB International Media and Publishing House), *Acta Physiologiae Plantarum*, eISSN 1861-1664, and *Planta*, eISSN 1432-2048.
- Dr. Sharmita Gupta is Reviewer and presently, Nominated Editor, Annals of Plant and Soil Research-for the period January 2023 to December 2024.
- Dr. Akbar Ali served as Member of the Jury at the 31<sup>st</sup> National Children Science Congress, held at Kendriya Vidyalaya No. 1, Air Force Station, Agra, from November 23 25, 2023.

#### **Students Achievements/ Awards**

 Ms. Priyanka Chaturvedi, a Research Scholar, Dept. of Botany, DEI won the Best Oral Session Award (Food Microbiology) + a Gift voucher worth EUR 200, at the AMI-SPRINGER NATURE 2023 AWARDS which were presented at the 64th Annual International Conference of the Association of Microbiologists of India (AMI 23), jointly organized by Bundelkhand University, Jhansi and ICAR- Central Agroforestry Research Institute, Jhansi, from 1 to 3 December 2023. Ms. Himari Parihar, a Research Scholar of the same Department, bagged the Best Poster Award (Industrial & Food Microbiology) at this Conference.

• Mukta Satsangi won the best trainer award at Summer Industrial Training 2024 from 10 June-19July, 2024 held at Centre of Excellence in Unani Medicine, Bioactive Natural Product Laboratory, SPER, Jamia Hamdard, New Delhi, India.

## Workshops/Conferences/Seminars/Webinars/ Training Programmes Attended

- Dr. Sharmita Gupta participated in International Short-term training program • VIII, "Energy and Environment Conservation" from 18- to 24 April 2023, organized by Raj Rishi Govt. Autonomous College, Alwar, Rajasthan. She participated in International Faculty Development program-cum-workshop on ICAR- Indian Agricultural Educational & Research Model Vs Global Agricultural Educational & Research Model from 14 - 20 July in Online mode, jointly organized by Cambridge International Agriculture Organization, Southern Federal University, Russia, Hindustan Agricultural Research Welfare Society, ICAR - Central Institute For Research On Goats, International Maize And Wheat Improvement Center (CIMMYT), Gujarat Natural Farming And Science University. She also participated in NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) organized by UGC- Malaviya Mission Teacher Training Centre, Kumaun University, Nainital (Uttarakhand)from 22/07/2024 to 31/07/2024.
- Dr. Shubha Anand participated in International Faculty Development program-cum-workshop on ICAR- Indian Agricultural Educational & Research Model Vs Global Agricultural Educational & Research Model from 14 – 20 July in Online mode ,jointly organized by Cambridge International Agriculture Organization, Southern Federal University, Russia, Hindustan Agricultural Research Welfare Society, ICAR - Central Institute For Research On Goats, International Maize And Wheat Improvement Center (CIMMYT), Gujarat Natural Farming and Science University.
- Dr. Akbar Ali attended Faculty Development Programme on Nurturing Faculty Expertise in Agricultural Research, Technology and Entrepreneurial Ventures, Amity University, Uttar Pradesh from 15 19 January, 2024.
- Vijay Kumar Dalal attended 7 days Faculty Development Program (FDP) on Precision farming, Sanskriti University, in August, 2023 and a 7days FDP on NAAC, Sanskriti University in October, 2023.
- Arushi Khandelwal, Anuradha Patel (2024) attended One day workshop on "IPR- Intellectual Property rights/copyright organized by Dayalbagh Educational Institute, Agra under the aegis of Council of Science and Technology (CST), Lucknow, Uttar Pradesh on February 3, 2024.
- Prity Mehta attended and participated in One-week DST-SERB Accelerate Vigyan Karyashala on 'Familiarization with Hands-on Training on Advanced

Analytical/ Characterization Equipment', from April 19-25, 2024 organized by the Department of Chemistry, Dayalbagh Educational Institute, Dayalbagh, Agra.

- Dr. Akbar Ali attended Training-cum- online workshop on "Go Gas Chromatography" Webinar Series from October 4 – 6, 2023 organised by Agilent Technologies, India. He attended a Training-cum- online workshop on "Helium Conservation and Alternatives" on November 28 2023 organised by Agilent Technologies, India and a Training-cum-online workshop on "Excellence Lab" Webinar Series from December 5 – 12, 2023 organised by Agilent Technologies, India. He participated in aTraining-cum-online workshop on "Managing Nitrosamine Impurities" on January 18, 2024, organised by Agilent Technologies, India and a one day online webinar on "World IP Day Webinar 2024" on April 26, 2024, organized by Turnip Innovations Pvt. Ltd. Kolkata, India.
- Dr. Akbar Ali attended International Agriculture Certificate Course-Cum-Training Program on Prime Minister & Ministry of Agriculture & Farmers' Welfare Sponsored Agriculture Scheme & Indian Agriculture Vision-2050 from April 1 – 30, 2024 by Hindustan Krishi Anusandhan Bhawan, NH- 24, Delhi Road, Moradabad (UP) 244001, India.
- Pooja Saraswat, Soniya, Hunny Waswani, Rajiv Ranjan presented an oral presentation at the National Conference on "Transforming Healthcare: Advances in Bioinformatics and Biological Sciences (ABBS 2024)" organized by the Department of Bioinformatics from February 13–15, 2024, at Sathyabama Institute of Science and Technology, Chennai, India. Pooja Saraswat also participated in the virtual 1<sup>st</sup> International Workshop-cum-Webinar on "CRISPR Genome Editing," held from July 22–26, 2024, organized by Glostem. She attended an online course on "CRISPR-CAS: The Molecular Toolkit- Principles and Applications," conducted by Flowcytometry Solutions Pvt. Ltd., Jaipur, India, from April 10–12, 2024 and an international webinar on "Academic Entrepreneurship Challenges and Rewards," organized by Bioingene.com, held on July 1, 2023.
- Deeksha Singh and Rajiv Ranjan presented a paper in the National Conference on "Innovation in Biotechnology and Bioengineering," held on April 27, 2024, organized by the Department of Biotechnology, Kashi Institute of Technology, Varanasi, India and in the International Conference on "Exploring Innovation in Agricultural, Biological, Chemical, Environmental, and Forensic Science," held from May 25–26, 2024, organized by Paliwal PG College.
- Ambika Chaturvedi and Rajiv Ranjan presented a paper entitled on "Characterization of a New Isolate of Mungbean Yellow Mosaic Virus in *Vigna mungo* L. reported from Dayalbagh Field, Agra, India" at the International Conference on "Exploring Innovations in Agricultural, Biological, Chemical, Environmental, and Forensic Sciences," organized by Paliwal PG College, May 25–26, 2024.

- Shivangi Mathur and Rajiv Ranjan presented a paper entitled "Metagenomic Analysis of Rhizospheric Bacteria in Medicinally Important Plant: *Piper longum* L." at the International Conference on "Exploring Innovation in Agricultural, Biological, Chemical, Environmental, and Forensic Science," held on May 25–26, 2024, organized by Paliwal PG College.
- Shivangi Mathur attended the international webinar on "Cytogenetics to Functional Genomics: A Journey with Prof. P.K. Gupta" on April 6, 2024, organized by Bioingene. She also attended the live interactive webinar on "De-novo Domestication of Crops for Salt-Affected Environments" on March 28, 2024, organized by Bioingene.
- Vikas and Rajiv Ranjan presented a paper at the International Conference on "Exploring Innovation in Agricultural, Biological, Chemical, Environmental, and Forensic Science," held on May 25–26, 2024, organized by Paliwal PG College.
- Manaswi Rani, Sharmita Gupta, and Shubha Anand presented a paper entitled "Isolation and Screening of Bacteria Producing Polyhydroxybutyrate (PHB) from Soil in Automobile Washing Areas," in the International Conference on "Exploring Innovations in Agricultural, Biological, Chemical, Environmental, and Forensic Sciences (EIABCEFS-2024)" held on May 25–26, 2024, organized by Paliwal PG College, Shikohabad, Uttar Pradesh.
- Manaswi Rani and Sharmita Gupta presented a paper entitled "Isolation and Physicochemical Characterization of Protein from Sunflower Deoiled Cake." in Biotech Nexus 2024 on "Recent Advances in Biotechnology and Biomedical Sciences" held on April 26–27, 2024, organized by SGVU-Biotechnology Business Incubator (BBI) and the School of Applied Sciences, Suresh Gyan Vihar University, Jaipur.
- Shubhangi Singh, Sharmita Gupta and Sukhdev Roy presented a paper entitled "Assessing the role of Natural Photosensitizer (*Beta vulgaris*) on *Aspergillus fumigatus* with low power laser radiation" in International Conference on "Exploring Innovations in Agricultural, Biological, Chemical, Environmental and Forensic Sciences" held on 25-26 May, 2024 organized by Paliwal PG College Shikohabad, Academy for Environmental and Life Sciences, and UAS Raichur India supported by Office of the Principal Scientific Advisor to the Government of India.
- Shubhangi Singh, Sharmita Gupta and Sukhdev Roy presented a paper entitled "Investigating the role of natural photosensitizer *Beta vulgaris* against *Aspergillus fumigatus* with Photodynamic therapy" in International Conference (Hybrid mode) Biotech Nexus 2024 on "Recent Advances in Biotechnology and Biomedical Sciences" held on 26 -27 April 2024 organized by Suresh Gyan Vihar University sponsored by Department of Scientific and Industrial Research (DSIR), Govt. of India and DST Rajasthan.
- Shubha Anand, Sharmita Gupta and Anita Lakhani presented a paper entitled "Production of keratin bioplastic films from human hair: some preliminary

outcomes," in International Conference on Exploring Innovations In Agricultural, Biological, Chemical, Environmental and Forensic Sciences (EIABCEFS-2024) held on 25-26 May 2024, organized by Paliwal PG College, Shikohabad, Uttar Pradesh.

- Dalal V. K. made an oral presentation in National Conference on Medicinal Plants, CAFRI, Jhansi, UP., India held from 8-9 September, 2023. He also made an oral presentation in Multidisciplinary National Conference on Impact of Post Pandemic on MSITEC, Agra, UP., India held from 3-4 October, 2023 in the 4<sup>th</sup> Conference (online) on "Nutrition-2023" in November, 2023 organized by Magnus Conferences. He attended 7 days Faculty Development Program (FDP) on Precision farming, Sanskriti University, Aug, 2023. He presented a paper in 2<sup>nd</sup> International Conference on Recent advances in Horticultural Research-2024, Amity University, G. Noida, UP., India held from 15-16 February, 2024 and another in International Conference-2024 at Paliwal P G College, Shikohabad, Uttar Pradesh, UP., India held in May, 2024.
- Suman, Saloni Sharma, Charu Singh and Sanjay Yadav presented a paper entitled 'Response of Red cherry tomato crop grown in two soilless system under protected cultivations' in 6<sup>th</sup> International Conference on Holistic Innovation and Technological Advances for Sustainable Agriculture (HITASA), held from 4-6 March, 2024.
- Saloni Sharma, Suman, Sanjay Yadav and Prem Saran Tirumalai presented a poster entitled 'Efficacy of *Pseudomonas fluorescens* and *Bacillus subtlis* as pure and mixed culture in Biosoprtion of Chromium and Iron' in International Conference on Climate Change and agroecosystems: Threats, opportunities and solutions organized by IIT-BHU from 8-10 February, 2024.
- Charu Singh, Saloni Sharma, Sanjay Yadav and Sushma Mishra presented a poster entitled 'Compatibility Assay of Endophytes for Salinity Resistant and Nitrogen Fixing Abilities Isolated from *Portulaca oleracea*' in International Conference on Climate Change and Agroecosystems: Threats, Opportunities and Solutions organized by IIT-BHU from 8-10 February, 2024.
- Saloni Sharma successfully completed a one-month training program on "Prime minister & ministry of Agriculture & Farmers welfare sponsored agriculture schemes and indian agriculture vision 2050" organized from 1-30 April, 2024.
- Krishan Kant, Shalu Gupta and Navneet Kaur attended the International Agriculture Certificate Course-Cum-Training Program on Prime Minister & Ministry of Agriculture & Farmers' Welfare Sponsored Agriculture Scheme & Indian Agriculture Vision-2050 from April 1-30, 2024 by Hindustan Krishi Anusandhan Bhawan, NH-24, Delhi Road, Moradabad (UP) 244001, India.
- Shalu Gupta, Abhishek Sagar, Krishan Kant, Navneet Kaur, Parnika Jindal, and Akbar Ali presenting a poster at Springer Nature India Research Tour, 2023 in partnership with Ministry of Education Government of India aligned with G20 India.

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- Mukta Satsangi attended CoE Brain Storming Conclave 2023 on Need for Advanced Scientific Research in Unani Medicine as Student Coordinator on 12 December 2023, organised by Centre of Excellence in Unani Medicine, Bioactive Natural Product Laboratory, SPER, Jamia Hamdard, New Delhi, India.
- Mukta Satsangi attended Launch of Capacity Building Programme of Labs to Build their Micronutrient Testing Capacity in Fortified Edible Oil and Wheat Flour on 10 January, 2024 at Centre of Excellence in Unani Medicine, Bioactive Natural Product Laboratory, SPER, Jamia Hamdard, New Delhi, India.
- Mukta Satsangi attended International Ayush Conclave-2024 from 3-5 February, 2024 at Jamia Millia Islamia, New Delhi.
- Mukta Satsangi presented poster at International Conference on Scientific Trends in Unani medicine: Current Trends and Approaches from 21-22 February, 2024 organized by Centre of Excellence in Unani Medicine, Bioactive Natural Product Laboratory, SPER, Jamia Hamdard, New Delhi, India.
- Mukta Satsangi attended National Workshop on Capacity Building of Ayush Professionals from 23-25 February, 2024 organized by Centre of Excellence in Unani Medicine, Bioactive Natural Product Laboratory, SPER, Jamia Hamdard, New Delhi, India.
- Parnika Jindal attended the International Agriculture Certificate Course-Cum-Training Program on Prime Minister & Ministry of Agriculture & Farmers' Welfare Sponsored Agriculture Scheme & Indian Agriculture Vision- 2050 from April 1 –30, 2024 by Hindustan Krishi Anusandhan Bhawan, NH- 24, Delhi Road, Moradabad (UP) 244001, India.

# **Publications**

- 1. Jeetendra Singh, S.K. Soni. (2023). Impact of salt stress on oleaginous green microalgae. Sustainability, Agri, Food and Environmental Research, 12(1), Article 700.
- Shrivastav, P., Soni, S.K., & Singh, J. (2023). Botanical Diversity Park REI (Dayalbagh): An initiative towards biodiversity conservation. Paritantra -Journal of System Science & Engineering, 12(3), 45-56.
- 3. Singh, J., Soni, S.K., Shrivastav, P., & Shrivastav, R. (2023). Permaculture: Transformation of barren land into food park (Khasra-359) Dayalbagh, Agra. Paritantra - Journal of System Science & Engineering, 12(4), 67-78.
- 4. Sharma, N., Singh, B., & Soni, S.K. (2023). Cultivation of soybean seeds for preparation of soya tofu. Journal of Research and Studies, 6(2), 101-110. ISSN: 2455-5401.
- 5. Sharma, N., Singh, B., & Soni, S.K. (2023). Fortification of cattle milk using juice and dried powder of beetroot (Beta Vulgaris L.). Paritantra Journal of System Science & Engineering, 12(5), 89-99.

- 6. Chaturvedi, A., Gupta, D., Mandal, B., et al. (2024). A new isolate of mungbean yellow mosaic India virus in Vigna mungo L. reported from a Dayalbagh field, Agra. Virus Genes.
- 7. Gupta, A., Singh, D., & Ranjan, R. (2024). De novo transcriptome analysis reveals novel insights into secondary metabolite biosynthesis in Tylophora indica (Burm. f.) Merrill. bioRxiv.
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- 9. Gupta, D., Saraswat, P., Waswani, H., Kumar, S., & Ranjan, R. (2024). In silico identification and characterization of WRKY superfamily in Capsella rubella. Research Journal of Biotechnology, 19(4), 107-122.
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- 31. Jindal, P., Kant, K., Kaur, N., Gupta, S., Ali, A., & Naeem, M. (2024). Melatonin: Discovery, biosynthesis, phytohormones crosstalk, and roles in agricultural crops under abiotic stress conditions. Environmental and Experimental Botany, 105942.

#### **Book Chapters:**

- 1. Patel A., Tiwari S., Khandelwal A., Singh C., Pandey N., Tiwari A., Yadav S., Prasad S.M. (2024). Plants as biomarkers for monitoring environmental pollution. In Biomarkers in Environmental and Health Biomonitoring.
- Abhijita, S., Dalal, V.K., Misra, A. N. The Effects of Light Quality and Quantity on Photosynthesis. In: A Closer Look at Photosynthesis, Biochemistry and Molecular Biology in Post Genomic Era. Plant Science Research and Practices, Nova Science Publishers. 2023; pp; ISBN: 979-8-88697-815-5
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- Dalal, V. K., Singh, J., Soni, S. K. The Regulation of Photosynthesis by Drought Revealed through Omics Studies. In: A Closer Look at Photosynthesis, Biochemistry and Molecular Biology in Post Genomic Era. Plant Science Research and Practices, Nova Science Publishers. 2023; pp; ISBN: 979-8-88697-815-5
- Dalal, V. K. Lesser-Known Proteins Involved in Chloroplast and Thylakoid Biogenesis. In: A Closer Look at Photosynthesis, Biochemistry and Molecular Biology in Post Genomic Era. Plant Science Research and Practices, Nova Science Publishers. 2023; pp; ISBN: 979-8-88697-815-5
- Dalal, V. K.\*, Tripathy, B. C. Alterations of the Chlorophyll Biosynthesis Pathway in Higher Plants in Response to Stress. In: A Closer Look at Photosynthesis, Biochemistry and Molecular Biology in Post Genomic Era. Plant Science Research and Practices, Nova Science Publishers. 2023; pp; ISBN: 979-8-88697-815-5
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- 8. Ali, A., Kant, K., Gupta, S., Kaur, N., Jindal, P., & Naeem, M. (2024). Enhancing nutritional and antidiabetic properties of Stevia rebaudiana Bert. A sweet-leaf plant through various scientific approaches. *In Antidiabetic Medicinal Plants* (pp. 229-253). Academic Press.
- Navneet Kaur, Krishan Kant, Shalu Gupta, Parnika Jindal, Akbar Ali and M. Naeem (2024) Moringa Leaf Extract in Crop Improvement: Current Status and Future Prospects In: Botanical Extracts and Their Phytochemicals Potentiality in the Development of Sustainable Agriculture Editors: Mahesh R. Ghule, M. Naeem, Iffat Zareen Ahmad (Eds.). Apple Academic Press, Inc., Florida 32905 USA, ISBN: 9781998511129 (In Press).

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- 11. Jain, R., Rohatgi, S., Singh, D., Mathur, S., & Ranjan, R. (2024) Proteomics Approaches in Medicinal Plant Research and Pharmacological Studies. In Plant Proteomics (pp. 197-225). CRC Press.
- 12. Singh, D., Mathur, S., & Ranjan, R. (2024). Pattern recognition receptors as potential therapeutic targets for developing immunological engineered plants.
- 13. Mathur, S., Singh, D., & Ranjan, R. (2024). Recent advances in plant translational genomics for crop improvement. Advances in Protein Chemistry and structural Biology.
- 14. Saraswat, P., Singh, D., Singh, A., Mathur, S., Waswani, H., & Ranjan, R. (2024). CRISPR/Cas techniques used in plant disease management. In Biocontrol Agents for Improved Agriculture (pp. 331-351). Academic Press.
- 15. Mathur, S., Singh, D., & Ranjan, R. (2024). Production of phenolic secondary metabolites by fungal endophytes: importance and implication. In *Fungal Secondary Metabolites* (pp. 537-556). Elsevier.
- 16. Vikas, & Ranjan, R. (2023). Biofertilizers and Biofortification in Future Agriculture. In *Climate-Resilient Agriculture, Vol 1: Crop Responses and Agroecological Perspectives* (pp. 363-377). Cham: Springer International Publishing.
- 17. Rohatgi, S., Jain, R., Mathur, S., Singh, D., & Ranjan, R. (2023). Cross Talk of Biostimulants with Other Signaling Molecules Under Abiotic Stress. In Climate-Resilient Agriculture, Vol 2: Agro-Biotechnological Advancement for Crop Production (pp. 295-317). Cham: Springer International Publishing.
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- 19. Waswani, H., & Ranjan, R. (2023). Phytohormones as Stress Mitigators in Plants. In Mineral Biofortification in Crop Plants for Ensuring Food Security (pp. 319-338). Singapore: Springer Nature Singapore.
- 20. Singh, J., Soni, S. K., & Ranjan, R. (2023). China Root (Wolfiporia extensa (Peck) Ginns). Mushrooms: Nutraceuticals and Functional Foods.
- 21. Singh, J., Soni, S. K., & Ranjan, R. (2023). Biochar for the Improvement of Crop Production. In Mineral Biofortification in Crop Plants for Ensuring Food Security (pp. 297-317). Singapore: Springer Nature Singapore.
- 22. Singh, N., Soni, S.K. (2024). Future directions in agriculture biotechnology: developing resilient and sustainable agriculture systems. In Futuristic Trends in Biotechnology Volume 3, Book 16. IIP Series

#### **Book in print**

- 1. Akhilesh Kumar, Mogla Achal Maharaj Kishore, 2023. An Introduction to Rural Development: Theory and Practical. SR Scientific Publications, Agra. ISBN: 978-9393483-072.
- 2. Dalal, V. K., Misra, A. N. (2023). A Closer Look at Photosynthesis, Biochemistry and Molecular Biology in Post Genomic Era. Plant Science Research and Practices, Nova Science Publishers, NY, USA; ISBN: 979-8-88697-815-5.

#### Placements

The following students were placed

- 1. Pradip, Saurabh Solanki and Jay Prakash Shrijinee Milk Producer Company Ltd.
- 2. Garvit and Suraj Shri Mataji Gaushala
- 3. Vishal Pathak Chaach wala
- 4. Yuvraj Modern Dairy Plant
- 5. Satyam, Ramakant, Sooraj, Hardik and Pradeep Salang Narmada Food Pvt Ltd
- 6. Pratyaksh and Anshu- Sakhi Milk Producer Pvt Ltd.
- 7. Nitin Kumar Ajile Chemical
- 8. Shilendra- DCM Shriram
- 9. Nitin Sharma- Kamadgiri Pvt. Ltd
- 10. Sahil Kaushik- DeHaat
- 11. Brijmohan Tyagi- Adama
- 12. Shivam Tiwari Varun Beverages
- 13. Ms. Shilpi Kumari- Eco-Safe
- 14. Ms. Sakshi Swapnil- Motherson Group

# Department of Chemistry

The Department of Chemistry was established in the year 1947 as a part of the erstwhile R.E.I. Degree College, which was affiliated to Agra University. In the year 1981, with the formation of Dayalbagh Educational Institute as a Deemed to be a university, it became a part of it. The Department offers following Degree and Diploma programmes, which aim to impart sound understanding on fundamentals as well as applications and lay greater emphasis on exposing students to the frontiers of research.

- B.Sc. (Hons) Chemistry
- M.Sc. Chemistry
- Ph.D.

The Department also offers Work Experience Courses on: Extraction of Natural Products, Soil Testing, Pollution Control of Air and Water, and Physical and Chemical Aspects of Leather Processing. The department is equipped with a wide range of sophisticated analytical and experimental facilities to support its research and teaching activities. Besides receiving extra-mural research grants from UGC, DST, AICTE, ISRO, MHRD, CSIR and BRNS-DAE, the Department is UGC-SAP assisted under DRS-1 and DRS II Scheme and is recipient of DST-FIST Level I grant twice. The Department has successfully completed an International collaborative research project with the University of Maryland under the DST-NSF Material World Network Programme. It is also pursuing an ISRO-GBP research project in the area of atmospheric chemistry. Recently, the department was awarded the prestigious Indo-US 21<sup>st</sup> Century Knowledge Initiative Research Grant, to the tune of Rs. 11.7 million, for its research programme on Solar Hydrogen in collaboration with Arizona State University, USA. The Department has also signed a Memorandum of Collaboration with industrial partner, Indian Oil Corporation Ltd., to upscale the hydrogen production devices and for developing a test reactor in the country. Department is in active research collaboration with several other Research Laboratories/Institutions, namely: IIT Delhi; BARC, Mumbai; Indian Association for the Cultivation of Science, Kolkata; Jawahar Lal Nehru Centre for Advanced Scientific Research, Bangalore; Inter University Accelerator Centre, New Delhi; Physical Research Laboratory, Ahmedabad; Jawahar Lal Nehru University, New Delhi; International Centre for Genetic Engineering and Biotechnology, New Delhi; IIT Roorkee; IISc, Bangalore; IIT Mumbai, National Physical Laboratory, New Delhi and University of Malay, Malavsia.

The faculty members have been nominated as Members to Science Academies and accorded distinctive awards/medals/prizes in their research areas. Faculty members regularly visit different Universities and Research Organizations in the country and abroad, in the capacity of Visiting Professor and Resource Person to deliver lectures in UGC sponsored refresher courses and invited talks, chair sessions in national/international conferences and as examiner for Ph.D. thesis. They also serve as Editor and Reviewer for many reputed Journals, Expert in the Selection Committees, Board of Studies, Academic Bodies of Universities and Fellow/Member to the Science Academies. The alumni of the Department occupy high positions in the industry and academia and through their outstanding achievements have truly reflected the quality of training imparted to them by the Department.

#### **Facilities in the department**

The department is equipped with state of the art instruments like X-Ray Diffractometer, High Performance Thin Layer Chromatograph, Ion Chromatograph, Gas Chromatograph, UV-Visible Spectrophotometer, Potentiostat, Carbon Analyser, Online Ozone,  $NO_x$  and CO Analysers, Atomic Force Microscope, GC-MS, Raman Spectrometer, Table-top SEM, Spray Pyrolyzer, Electrochemical Work station, Cluster Computer, Weather Station, Zeta sizer, ICP-OES, Fluorescence Spectrophotometer, Thermogravimetric Analyzer and Differential Scanning Calorimeter and several air sampling equipment's.

# Workshops/Conferences/Seminars/Webinars Organized

- The department conducted DST SERB Accelerate Vigyan Karyashala on Familiarization with Hands-on Training on Advanced / Analytical Equipment" from 19-25 April, 2024 sponsored by DST, New Delhi.
- The department conducted a Space Science and Technology Awareness Training Program (START), hosted by the Indian Institute of Remote Sensing (IIRS) Dehradun from July 20 to August 7, 2023. The program was conducted online, and Dayalbagh Educational Institute was selected as a nodal center for this training program, with Dr. Ranjit Kumar as the course coordinator.

## Faculty/Staff Achievements/ Awards

- Dr. Sudhir Kumar Verma served as the SWEEP Coordinator (Nodal Officer) at Dayalbagh Educational Institute (Deemed to be University) for the flagship program, Systematic Voter's Education and Electoral Participation (SVEEP), of the Election Commission of India, starting from February 2, 2024. He also served as Co-convener (ICMRP-2023) in International Conference organized by Dr. Bhimrao Ambedkar University Agra and Koshambi Foundation, India from December 16 to 18, 2023.
- Dr. Manju Shrivastav participated in the inaugural "Vikram Discussions" on Astrobiology & Astrochemistry, organized by the Interdisciplinary Program for Astrobiology &; Astrochemistry (IPAA) at the Physical Research Laboratory, Ahmedabad. The event, which took place on January 5-6, 2024, convened experts to enhance India's space programs. She served as Organizing secretary in the International E-conference on Recent Advances & Innovations in Applied Sciences -2023 (RAIAS 2023) organized by IITyam India Academy Delhi on 12 August 2023 and as Joint secretary in international e-conference on Recent Advances in Science and Technology (Science Tech-2023) organized by IITyam India Academy Delhi. She also attended a short-term capacity building programme on Organizational Behaviour and Life skills leading to better worldliness organized by AIU-Dayalbagh Educational Institute – Academic & Administrative Development Centre (AIU-DEI-AADC) from Feb 26 – Mar 02, 2024
- Dr. Aparna Satsangi was invited as a Resource person in 'Short-Term Capacity Building Programme on Statistical Analysis: Theory and Practice (Applications of SPSS and R Software in Research)' 28 November to 05 December, 2023; Organized by AIU-DEI-AADC, Dayalbagh Educational Institute. She was also invited to deliver a Lecture on Chemistry subject at KV No.1, AFS, Agra as Guest/Expert Lecture on 26 September, 2023.
- Dr. Ranjit Kumar was a Member of the Bioeconomy Conference organized by Indian Institute of Technology, Guwahati from October 11-12, 2023.
- Dr. Ranjit Kumar chaired the Technical Session 19, International e-Conference on Recent Advances in Science & Technology (Science Tech 2023), Organized by Institute of Applied Science & Technology, IITyam India

Academy Delhi in collaboration with Department of Higher Education, Uttarakhand from November 04-05, 2023 (Online).

• Prof. Anita Lakhani was invited to evaluate 3 Theses of Jawaharlal Nehru University, New Delhi.

## **Students Achievements/ Awards**

- Simran Bamola was awarded with first prize in platform presentation in Indian Aerosol Science and Technology Association (IASTA) National Conference, held from December 12-14, 2023 at Navi Mumbai.
- Gunjan participated in international conference entitled "Advancement in Natural Science: Vedic to Modern Era" (ICANSVME-24) from 22<sup>nd</sup> -24<sup>th</sup> February, 2024, organized by SRMU-Shri Ramswaroop Memorial University, Lucknow, Uttar Pradesh, India and won the 2<sup>nd</sup> Prize in Oral presentation.
- Kirti Singh received Global Young Scientist Award- 2024 in the 7<sup>th</sup> International Conference on "Global approaches in agriculture, biological, environmental and life sciences for sustainable future held from 8 10 June, 2024 at Kathmandu, Nepal.
- Neelam Baghel received several awards recognizing her research contributions. In 2024, she received the Best Paper Award and the Global Young Environmentalist Award at the Global Approaches in Agriculture, Biological, Environment, and Life Science for a Sustainable Future conference organized by D.A.V. College, Kathmandu, Nepal held from June 8-10, 2024.
- Arti Bhatnagar received the Best Oral Presentation Award at the International Conference on Climate Change, Sustainable Development, and Smart Agriculture (ICSSA-2023), held on April 6-7, 2023, at Kalinga University, Naya Raipur, Chhattisgarh. She also received the Best Poster Presentation Award for her work with Jamson Masih and Ranjit Kumar on "Biosensing Application of ZnO Thin Films: Synthesis and Characterization" at the 93rd Annual Session of the National Academy of Sciences, India (NASI), held at BARC, Mumbai, from December 3-5, 2023.
- Mr. Vaishnav Bartaria was selected for the IUAC BTR-2 Project for his Ph.D. work and received the "South Asian Meteorological Association Student Champion Award.
- Ms Anustha Bharadwaj received Best Oral Presentation award\_for presenting her research work in seven-days SERB sponsored High-End Workshop on "Advanced Energy Materials for Next Generation Solar Cells" under DST-SERB ACCELERATE VIGYAN KARYASHALA (Sponsored by Department of Science and Technology - Science & Engineering Research Board, GOI) organized by Advanced Semiconductor Materials and Nanoelectronics Research Group, PDPM- IITDM, Jabalpur from May 27 to June 02, 2024.

## **Ongoing Research Projects**

- The FIST Level I Project sanctioned to the department was successfully completed in September, 2023.
- Project entitled "Socio-economic Empowerment of the in the Rajaborari Estate Madhya Pradesh through Scientific and Technological Interventions" sanctioned by Department of Science and Technology-Science for Equity, Empowerment and Development (DST-SEED) with an outlay of Rs. 2.19 Crore sanctioned to Prof. Anita Lakhani as Principal Investigator was extended till October 2, 2024.
- Project entitled "Ozone precursors and relationships in atmosphere at a semi-arid site" sanctioned by Indian Space Research Organization under Atmospheric Trace Gases-Chemistry, Transport and Modelling Project ongoing since 2009, with an outlay of Rs. 2.5 Crore sanctioned to Prof. Anita Lakhani as Principal Investigator and Dr. Aparna Satsangi as Co-PI was extended till March 31, 2024.
- ISRO-GBP Project entitled Regional Characterization of atmospheric aerosol at Agra region. PI: Dr. Ranjit Kumar and Co-PI: Dr. Ashok Jangid, Dayalbagh Educational Institute, Dayalbagh, Rs. 50.0 Lakhs (2021-2024).
- Project entitled Development of efficient and robust working electrodes/ photocatalysts for solar energy conversion to hydrogen via photoelectrochemical/photocatalytic splitting of water: Next level up-scaling of laboratory experience, sanctioned by DST to Prof. Rohit Shrivastav as Principal Investigator.

# Seminar/Symposia/Conference/Webinar/Workshops/Faculty Development Programme Attended

- Dr. Pushpa Sahni successfully completed online two-week refresher course in "Chemistry" organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education, Malaviya Mission on Teachers and Teaching Program from 28 April-11 May, 2024. She has also successfully completed online one-week Faculty Development Programme on "Teaching Learning Methods" organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education, Malaviya Mission on Teachers and Teaching Program from 31 January-06 February, 2024.
- Dr. Aparna Satsangi participated in 10 days Faculty Development Programme on "Statistics in Education and Social Sciences Research" from 22-05-2024 to 31-05-2024 Organized by Academic & Administrative Development Centre (AIU-DEI-AADC).
- Dr. Sudhir Kumar Verma successfully completed Ten Days Faculty Development Programme (FDP) on "Statistics in Education and Social Sciences Research". Organized by Faculty of Education, DEI under the aegis of AIU-DEI-AADC. May 22-31, 2024. He also completed One-week National

Level Online FDP on Outcome Based Education and Application of Generative AI in Teaching and Research which was organised by the DST-CURIE-Al center of SPMVV University Tirupati in association with IPSR solutions limited from 18 to 23 March, 2024. He also received "Certificate of Excellence in Reviewing" from Asian Journal of Chemical Sciences (ISSN: 2456-7795), London, UK. He also completed Refresher course on Environmental Studies from HRDC, Aligarh Muslim University, Aligarh from 16 to 29 August, 2023.

- Gunjan Goswami, Simran Bamola and Muskan Agarwal attended the national conference of Indian Aerosol Science and Technology Association (IASTA), organized by Pollution Monitoring Section, Bhabha Atomic Research Centre, Bombay from 12-14 December, 2023 and presented the following papers/posters
  - ✓ Gunjan Goswami presented poster entitled "PM₁ Bound Heavy Metals and Risk Assessment in urban Environment in Agra City," authored by Gunjan Goswami, Simran Bamola, Muskan Agarwal, Isha Goyal and Anita Lakhani.
  - ✓ Simran Bamola made a platform presentation on Environmental Levels, Sources, and Health Risk Assessment of PAHs Associated with PM₁ and TSP in an Urban Site in the Historic City of Taj," authored by Simran Bamola, Gunjan Goswami, Surat Dewan, Isha Goyal, Muskan Agarwal, Anita Lakhani.
  - ✓ Muskan Agarwal presented poster entitled "Morphological and Compositional Analysis of Aerosols During Biomass and Non-Biomass Burning Periods in Agra, India: Insights from Advanced Analytical Techniques" authored by Muskan Agarwal, Neha, Isha Goyal, Surat Dewan, Gunjan Goswami, Simran Bamola and Anita Lakhani.
- Isha Goyal, Surat Dewan, Gunjan Goswami, Simran Bamola and Muskan Agarwal participated in national workshop entitled "Familiarization with Hands-on Training on Advanced Analytical/Characterization Equipment" from 19-25 April, 2024, organized by Department of Chemistry, Dayalbagh Educational Institute, Agra.
- Muskan Agarwal participated in national workshop entitled "National Training Workshop On: Climate impacts of carbonaceous Aerosols and Measurements" from 23 - 25 June, 2024, organized by Indian Institute of Tropical Meteorology (IITM), Pune.
- Rajat Sengar and Sudhir Kumar Verma attended International Workshop on Innovative Practices in Research from 17-21 April, 2023, organized by School of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, MoE, Govt. of India at Faculty of Education, Dayalbagh Educational Institute (Deemed to be University) Dayalbagh, Agra.
- Ms. Anushtha Bhardwaj participated in poster presentation on "Thin films for solar hydrogen generation" in Fifth winter session of Dayalbagh science of consciousness – 2024. She along with, R. Dutta, M. Srivastava, also presented a paper on "Studying the integrated system of MOF with perovskite for solar

hydrogen generation" at international e-conference on Recent advances in Science and Technology (Science Tech- 2023) organized by IITyam India Academy Delhi, November 04-05, 2023. She also participated in international e-conference on Recent Advances & Innovation in applied science (RAIAS) -2023 organised by IITyam India Academy Delhi in collaboration with the Department of Chemistry HNB Govt. PG College Khatima UK and Department of Zoology, Govt. PG College Bazpur Uttarakhand, Department of Higher Education, Govt. of Uttarakhand, India. She also attended a seven-days SERB sponsored High-End Workshop on "Advanced Energy Materials For Next ACCELERATE Generation Solar Cells" under DST-SERB VIGYAN KARYASHALA (Sponsored by Department of Science and Technology -Science & Engineering Research Board, GOI) organized by Advanced Semiconductor Materials and Nanoelectronics Research Group, PDPM-IITDM, JABALPUR from May 27 to June 02, 2024.

- Rajat Sengar attended one day national webinar on "Biodiversity and its conservation". August 31, 2023. Organized by Shashkiya Snatak Mahavidhyalaya Lahar, Bhind (M.P.). He also participated and completed a one-day workshop on "IPR-Intellectual Property rights / copyright "on 3 February, 2024, organised by Dayalbagh Educational Institute (Deemed to be university) under the aegis of Council of Science and Technology (CST), Lucknow, Uttar Pradesh. He also participated in World IP Day Webinar 2024 on 26 April, 2024 which was organized by Turnip Innovations and supported by Qualcomm on the theme Intellectual Property and SDG's.
- Virendra Upadhyay participated in the Workshop On "Frontiers in Multidisciplinary Research" from 16-22 August 2023, organized by Galgotias University, Uttar Pradesh. He also participated in One Day National Webinar On "Biodiversity and its Conservation" on 31 August, 2023, organized by Govt. Degree College Lahar Bhind, M.P. He also participated in International Conference on "Emerging Trends in Basic Science Physical, Chemical, Biological, and Environmental Science" UMCCON from 26 to 27 February 2024, organised by IQAC-Department of Science Uttam Memorial College Raigarh (C.G.) He participated in one Day National Webinar on "Entrepreneurship & Innovation in Higher Education" held on 14 May 2024, organized by Shaheed Bhagat Singh Government P.G. College, Pipariya (M.P.).
- Neelam Baghel, Kirti Singh, Anita Lakhani, Aparna Satsangi and K. Maharaj Kumari presented a paper on "Atmospheric Chemistry of VOCs: Their role in the formation Tropospheric Ozone and Health Risk Assessment at Sub-urban site of Agra" in the 7<sup>th</sup> International Conference on Global approaches in agriculture, biological, environmental and life sciences for sustainable future (GABELS-2024) at Kathmandu, Nepal from June 08-10, 2024.
- Neelam Baghel, Anita Lakhani, Kirti Singh, Aparna Satsangi and K. Maharaj Kumari presented a poster on "Probabilistic human health risk assessment and contribution of secondary organic aerosol formation associated with BTEX at sub-urban site of Agra" in 5<sup>th</sup> winter session of Dayalbagh Science of

Consciousness held during December 31, 2023 - January 01, 2024, organised by Dayalbagh Educational Institute, Agra.

- Kirti Singh, Neelam Baghel, K. Maharaj Kumari and Aparna Satsangi presented a paper on "The characteristics of indoor and outdoor water soluble inorganic ions of PM<sub>2.5</sub> at two different microenvironments of Agra" in the 2nd International Conference on Exploring innovations in agricultural, biological, chemical, environmental and forensic sciences (EIABCEFS-2024) by Paliwal PG College at Shikohabad, U.P. held from May 25 -26, 2024. She also presented a poster on "The effect of ventilation and cooking on the indoor and outdoor air quality of residential buildings" in the National Symposium "TROPMET-2023" Changing Dynamics of Arid Region and Impact on Weather and Climate over Indian Subcontinent by the Indian Meteorological Society, Birla Auditorium, Jaipur held from November 22 -24, 2023.
- Deeksha Sharma attended International online workshop entitled "Data Visualization and Analytics" organized by PG department of Computer Applications and IQAC of Marian College, Kuttikkanam (Autonomous) and secured A grade (05- 11 July, 2024). She also attended online Internship Summer Training /Refreshers/STC Programme on "Data Analysis using R, Excel, Python, SPSS" organized by Dr Shakuntala Misra National Rehabilitation University and Science Tech Institute, Lucknow, UP held from 20 June 20 July, 2024. She also attended Statistics in Education and Social Sciences Research organized by Faculty of Education, Dayalbagh Educational Institute under the aegis of AIU-DEI-AADC held from 22 31 May, 2024.
- Vaishnav Bartaria, Ashok Jangid, and Ranjit Kumar attended 1<sup>st</sup> iCACGP-IGAC ECR Conference and presented paper on "Exploring the Dynamic Relationship Between Clouds and Aerosols in the Indo-Gangetic Basin," held on November 17, 2023. He along with Ashok Jangid, Ranjit Kumar also presented paper on Long-Term Variability of Aerosol Optical Depth at ARFI Station, Agra: Insights for Advancing Space-Based Meteorology and Climate Change Analysis as (Lightening Talk/Poster Presentation) in 22<sup>nd</sup> National Space Science Symposium, Goa University, Goa.
- Vaishnav Bartaria, Ashok Jangid, Ranjit Kumar presented a paper on Leveraging MPPD Modeling for In-Depth Analysis of Vehicular Pollution Effects on Ambient PM and CO<sub>2</sub> at the International e-Conference on Recent Advances in Science & Technology (Science Tech 2023) organized by Institute of Applied Science & Technology IITyam India.
- Vaishnav Bartaria, Ashok Jangid, Ranjit Kumar presented a paper on "Short-Lived Black Carbon's Impacts on Climate and Health in a Semi-arid Region" at National Symposium "TROPMET-2023" held at Jaipur.
- Vaishnav Bartaria, Ashok Jangid, Ranjit Kumar made a poster presentation on Synthesis and characterization of nanoparticle from the waste for Inhibition of microbial growth at the 42<sup>nd</sup> Annual Conference of the Indian Council of

Chemists, Department of Chemistry, Institute of Basic Sciences, Kota University, Kota.

- Kumari Ruchi, Bhanupriya, Rohit Shrivastav (2024), Ba-BiFeO<sub>3</sub> thin films for photoelectrochemical water splitting: An apt candidate for renewable hydrogen generation, 'International Conference on Hydrogen Energy and Advanced Materials (ICHEAM-2024)', April 22-24, 2024, Banaras Hindu University, Varanasi.
- Kumari Ruchi, Bhanupriya, Rohit Shrivastav (2024), Role of Varying Electrolytes on Photoelectrochemical Study of MgFe<sub>2</sub>O<sub>4</sub> Thin Film, '5<sup>th</sup> Winter Session of Dayalbagh Science of Consciousness', 31 December 2023 1 January, 2024, 2024, Dayalbagh Educational Institute, Dayalbagh, Agra.
- Shubhangi Gautam and Rohit Shrivastav (2024), Tantalum incorporated Barium Zirconate (Ta-BaZrO<sub>3</sub>) thin films for photoelectrochemical water splitting, 'International Conference on Hydrogen Energy and Advanced Materials (ICHEAM-2024)', April 22-24, 2024, Banaras Hindu University, Varanasi.

## **Publications**

- Bamola, S., Goswami, G., Dewan, S., Goyal, I., Agarwal, M., Dhir, A., & Lakhani, A. (2024). Characterising temporal variability of PM<sub>2.5</sub>/PM<sub>10</sub> ratio and its correlation with meteorological variables at a sub-urban site in the Taj City. Urban Climate, 53, 101763.
- 2. Dewan, S., Bamola, S., & Lakhani, A. (2024). Addressing ozone pollution to promote United Nations Sustainable Development Goal 2: Ensuring global food security. Chemosphere, 347, 140693.
- 3. Dewan, S., & Lakhani, A. (2024). Impact of ozone pollution on crop yield, human health, and associated economic costs in the Indo-Gangetic plains. Science of The Total Environment, 945, 173820.
- 4. Shubha, A., Sharmita, G., & Lakhani, A. (2024). Production and characterization of human hair keratin bioplastic films with novel plasticizers. Scientific Reports, 14(1), 1186.
- 5. Trivedi, K., Yadav, B., Shrivastav, R., & Modi, C. K. (2024). Synthesis of ternary photoactive heterojunction B/CN@rGO for visible light-driven selective photooxidation of benzyl alcohol. ChemPhotoChem,
- Sahni, P., & Usmani, S. (2024). Microtubule and adrenaline interaction: A key source to understand conscious balance in a human body. Biochemistry & Analytical Biochemistry, 13, 538. https://doi.org/10.4172/2161-1009.1000538
- 7. Ahmad, S., Jeba Reeda, V. S., Aziz, K., Arora, H., Kumar, M., Garima, K. M., Ali, A., Shahid, M., Muthu, S., Siddiqui, N., & Javed, S. (2024). Multifaceted investigation of Sulfamerazine: Insights from computational methods, experimental techniques, and molecular simulations. Journal of Molecular Structure, *1312*, 138554.

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- Kumar, M., Ahmad, S., Jeba Reeda, V. S., Arora, H., Shahid, M., Muthu, S., Siddiqui, N., Ali, A., & Javed, S. (2024). A comprehensive investigation of (E)-2,4-Dimethyl-6-(((2-(Phenylthio)phenyl)imino)methyl)phenol (2PTALD): Synthesis, crystal structure, and computational insights with molecular dynamic simulations. Journal of Molecular Structure, 1315, 138761.
- 9. Kaur, P., Verma, I., Khanum, G., Ali, A., Siddiqui, N., Javed, S., & Arora, H. (2024). Exploration of experimental, theoretical, molecular docking, and electronic excitation studies of carboxylate-appended (2-pyridyl) alkylamine ligand. Polycyclic Aromatic Compounds, *44*, 42802–42819.
- Agarwal, P., Kumar, A., Verma, I., Khanum, G., Siddiqui, N., Choquesillo-Lazarte, D., Mota, A. J., & Javed, S. (2024). Dinuclear phenoxo-bridged nickel (II) and copper (II) complexes of phenolate-based tripodal ligand: Theoretical and experimental insights. Polycyclic Aromatic Compounds, 44, 313–332.
- 11. Baghel, N., Kumari, S., Lakhani, A., Satsangi, A., & Kumari, K. M. (2023). Impact of COVID-19 pandemic lockdown on atmospheric concentrations of particulate matter, trace gases, and volatile organic compounds at a suburban site of Agra. Journal of Earth System Science, *132*, 169.
- 12. Baghel, N., Singh, K., Lakhani, A., Kumari, K. M., & Satsangi, A. (2023). A study of real-time and satellite data during agricultural crop residue burning on atmospheric pollutants at a downwind site of the Indo-Gangetic Plain. Pollutants, *3*(1), 166–180.
- Sharma, V., Prasad, M., Waghmare, A., Hase, Y., Shrivastav, R., & Jadkar, S. (2023). Novel bismuth sulphide-indium (hydroxyl) sulphide [Bi<sub>2</sub>S<sub>3</sub>-In(OH)xSy] nanoarchitecture for efficient photoelectrochemical water splitting. Journal of Power Sources, *571*, 233084.
- 14. Goyal, I., Verma, P. K., Singh, V., Kumari, K. M., & Lakhani, A. (2023). Spatiotemporal variation in air quality and unexpected pollution levels during the lamp event over the Indo-Gangetic Plain in the first wave of the COVID-19 pandemic. Environmental Science: Advances, *2*, 87–97.
- 15. Goyal, I., Verma, P. K., Singh, V., Kumari, K. M., & Lakhani, A. (2023). Dynamic changes in the characteristics of the fine particles and their oxidative potential in the city of Taj (Agra, India): The untold story of firework display. Air Quality, Atmosphere and Health, 16(11), 2193–2207.
- 16. Goyal, I., Agarwal, M., Bamola, S., Goswami, G., & Lakhani, A. (2023). The role of chemical fractionation in risk assessment of toxic metals: A review. Environmental Monitoring and Assessment, 195(9), 1098.
- 17. Pratima, G., Ashok, J., & Ranjit, K. (2023). Assessment of aerosol optical and physical properties and implications for radiative effects over the semiarid region of Indo-Gangetic basin. Geological Journals, 1–14.
- 18. Biswas, N. K., Srivastav, A., Saxena, S., Verma, A., Dutta, R., Srivastava, M., Upadhyay, S., Satsangi, V. R., Shrivastav, R., & Dass, S. (2023). The impact of

electrolytic pH on photoelectrochemical water oxidation. RSC Advances, 13(7), 4324–4330.

- 19. Biswas, N. K., Srivastav, A., Saxena, S., Verma, A., Dutta, R., Srivastava, M., Upadhyay, S., Satsangi, V. R., Shrivastav, R., & Dass, S. (2023). Temperature of photoanode for photoelectrochemical water oxidation. Renewable Energy, 208, 504–511.
- 20. Gupta, P., Jangid, A., & Kumar, R. (2023). Assessment of aerosol optical and physical properties and implications for radiative effects over the semiarid region of Indo-Gangetic Basin. *Geological Journal*, 1-14. https://doi.org/10.1002/gj.4857
- 21. Goswami, M. K., Srivastava, A., Dohare, R. K., Tiwari, A. K., & Srivastav, A. (2023). Recent advances in conducting polymer-based magnetic nanosorbents for dyes and heavy metal removal: Fabrication, applications, and perspective. *Environmental Science and Pollution Research*, 30(29), 73031-73060.
- 22. Biswas, N. K., Srivastav, A., Saxena, S., Verma, A., Dutta, R., Srivastava, M., Upadhyay, S., Satsangi, V. R., Shrivastav, R., & Dass, S. (2023). The impact of electrolytic pH on photoelectrochemical water oxidation. *RSC Advances*, 13(7), 4324-4330.
- 23. Biswas, N. K., Srivastav, A., Saxena, S., Verma, A., Dutta, R., Srivastava, M., Upadhyay, S., Satsangi, V. R., Shrivastav, R., & Dass, S. (2023). Temperature of photoanode for photoelectrochemical water oxidation. *Renewable Energy*, *208*, 504-511.
- 24. Pathan, H. K., Khanum, G., Javed, N., Siddiqui, N., Selvakumari, S., Muthu, S., & Javed, S. (2023). Quantum computational, spectroscopic characterization, Hirshfeld analysis, and molecular docking studies on p-toluenesulfonic acid (p-TSA) or tosylic acid. Chemical Physics Impact, *100320*.
- Rana, M., Ahmedi, A., Fatima, A., Ahmad, S., Siddiqui, N., Raza, K., Manzoor, N., & Rahisuddin, S. (2023). Synthesis, single crystal, TD-DFT, molecular dynamics simulation, and DNA binding studies of carbothioamide analog. Journal of Molecular Structure, 1287, 135701.
- 26. Pathan, H. K., Fatima, A., Garg, P., Muthu, S., Yadav, A., Siddiqui, N., & Ali, M. (2023). Spectroscopic, computational, molecular docking, and dynamics simulations studies of 4-amino-3-hydroxyNaphthalene-1-sulfonic acid (ANSA). Polycyclic Aromatic Compounds, *1–20*.
- 27. Sharma, S., Fatima, A., Manhas, F. M., Agarwal, N., Singh, M., Muthu, S., & Siddiqui, N. (2023). Experimental spectroscopic, quantum chemical, molecular docking, and molecular dynamic simulation studies on hydantoin (monomer and dimer). Polycyclic Aromatic Compounds, 43(7), 6627-6653.
- 28. Rana, M., Fatima, A., Siddiqui, N., Ahmedi, S., Dar, S. H., Manzoor, N., & Javed, S. (2023). Carbothioamide-based pyrazoline derivative: Synthesis, single crystal

structure, DFT/TD-DFT, Hirshfeld surface analysis, and biological studies. Polycyclic Aromatic Compounds, 43(7), 6181-6201.

- 29. Kaur, P., Verma, I., Khanum, G., Ali, A., Siddiqui, N., Javed, S., & Arora, H. (2023). Exploration of experimental, theoretical, molecular docking, and electronic excitation studies of carboxylate-appended (2-pyridyl)alkylamine ligand. Polycyclic Aromatic Compounds, *1*-18.
- 30. Fatima, A., Khanum, G., Agrawal, D. D., Srivastava, S. K., Butcher, R. J., Muthu, S., & Siddiqui, N. (2023). Synthesis, spectroscopic, crystal structure, DFT, Hirshfeld surface, and molecular docking analysis of hexahydroquinoline derivative (HQ). Polycyclic Aromatic Compounds, 43(5), 4242-4270.
- 31. Fatima, A., Singh, M., Abualnaja, K. M., Althubeiti, K., Muthu, S., & Siddiqui, N. (2023). Experimental spectroscopic, structural (monomer and dimer), molecular docking, molecular dynamics simulation, and Hirshfeld surface analysis of 2-amino-6-methylpyridine. Polycyclic Aromatic Compounds, 43(5), 3910-3940.
- 32. Sharma, A., Fatima, A., Malla, M. A., Khanum, G., Kumar, A., Singh, M., & Siddiqui, N. (2023). Molecular docking, dynamic simulation, and DFT approach to noble "2-hydrazinobenzothiazole" compound. *Polycyclic Aromatic Compounds*, 43(5), 4271-4298.
- 33. Jindal, A., Agarwal, P., Verma, I., Khanum, G., Althubeiti, K., Siddiqui, N., & Javed, S. (2023). Copper (II) monomer bearing phenolate-based ligand: Theoretical and experimental visions. Polycyclic Aromatic Compounds, 43(4), 3489-3501.
- 34. Kumar, M., Fatima, A., Singh, M., Verma, I., Khanum, G., Muthu, S., & Althubeiti, K. (2023). Experimental spectroscopic, quantum computational, Hirshfeld surface, molecular docking, and electronic excitation studies on an antibiotic agent: SDZ. Polycyclic Aromatic Compounds, 43(4), 3122-3146.
- 35. Kaur, P., Verma, I., Khanum, G., Siddiqui, N., Javed, S., & Arora, H. (2023). Dimeric Zn(II) complex of carboxylate-appended (2-pyridyl) alkylamine ligand and exploration of experimental, theoretical, molecular docking, and electronic excitation studies. Journal of Molecular Structure, 1276, 134715.
- 36. Kumar, M., Jaiswar, G., Afzal, M., Muddassir, M., Alarifi, A., Fatima, A., & Siddiqui, N. (2023). Quantum computational, spectroscopic (FT-IR, FT-Raman, NMR, and UV–Vis), Hirshfeld surface, and molecular dockingdynamics studies on 5-hydroxymethyluracil (monomer and trimer). Molecules, 28(5), 2116.
- 37. Fatima, A., Khanum, G., Srivastava, S. K., Bhattacharya, P., Ali, A., & Siddiqui, N. (2023). Exploring quantum computational, molecular docking, and molecular dynamics simulation with MMGBSA studies of ethyl-2-amino-4-methyl thiophene-3-carboxylate. Journal of Biomolecular Structure and Dynamics, 1-19.

- 38. Jindal, A., Kapoor, S., Verma, I., Raju, A., Arora, H., Tyagi, P., & Siddiqui, N. (2023). Synthesis, characterization, and antibacterial investigation of mononuclear copper (II) complexes of amine-phenolate-based ligands. Polycyclic Aromatic Compounds, 1-16.
- 39. Fatima, A., Khanum, G., Verma, I., Butcher, R. J., Siddiqui, N., & Srivastava, S. K. (2023). Synthesis, characterization, crystal structure, Hirshfeld surface, electronic excitation, molecular docking, and DFT studies on 2-amino thiophene derivative. Polycyclic Aromatic Compounds, 43(2), 1644-1675.
- 40. Fatima, A., Khanum, G., Sharma, A., Verma, I., Arora, H., & Siddiqui, N. (2023). Experimental spectroscopic, computational, Hirshfeld surface, and molecular docking investigations on 1H-indole-3-carbaldehyde. Polycyclic Aromatic Compounds, *43*(2), 1263-1287.
- 41. Agarwal, P., Kumar, A., Verma, I., Khanum, G., & Siddiqui, N. (2023). Dinuclear phenoxo-bridged nickel (II) and copper (II) complexes of phenolate-based tripodal ligand: Theoretical and experimental insights. Polycyclic Aromatic Compounds, *1*-20.
- 42. Fatima, A., Arora, H., Bhattacharya, P., Siddiqui, N., Abualnaja, K. M., & Garg, P. (2023). DFT, molecular docking, molecular dynamics simulation, MMGBSA calculation, and Hirshfeld surface analysis of 5-sulfosalicylic acid. Journal of Molecular Structure, 1273, 134242.
- Fatima, A., Khanum, G., Sharma, A., Siddiqui, N., Butcher, R. J., & Srivastava, S. K. (2023). Synthesis, crystal structure, DFT studies on tetramethyl-(p-tolyl)-hexahydro-1H-xanthene-1,8(2H)-dione. Polycyclic Aromatic Compounds, 1-23.

## **Book Chapters**

- 1. Simran Bamola, Gunjan Goswami and Anita Lakhani, Understanding polycyclic aromatic hydrocarbons (PAHs) and derivatives : Sources, Properties and Health Impacts, Contemporary Advances in Science & Technology, Vol. 7, 2024 ; RSYN Chemical Sciences; pp 65–90.
- 2. Dewan S., Lakhani A. Short Lived Climate Forcers in the Milieu of Climate change. Book Chapter in Advances in Environmental Research, Vol. 98; Nova Publishers; ISBN- 979-8-89113-458-4.
- 3. Gunjan Goswami., Simran Bamola, Amla Chopra and Anita Lakhani, Unlocking PM<sub>1</sub>-Bound Cytotoxicity: Where Do We Stand and What's Next? Contemporary Advances in Science & Technology, Vol. 7, 2024; RSYN Chemical Sciences; pp 29–44.
- 4. Ashok Jangid, Vaishnav Bartaria, Ranjit Kumar. Rain and Shine: The hidden link between Aerosol, Climate change and precipitation. 2024, in print.
- 5. Sharma, R., Virendra Nath, Shukla P., and Verma S. K. Environmental and Health Impacts of Acid Yellow 23 Food Dye and its Isolation Techniques- A Review. Importance of soil chemistry, Soil Chemistry and Present Challenges,

LAP LAMBERT Academic Publishing, 2023, 96-131. ISBN - 978-620-5-63394-6. 2023.

# Book

• Sahni Pushpa, Laboratory Manual for Chemistry Experiments, Lambert Academic Publishing, Germany, June 2024, ISBN 978-6207477081.

# **Department of Mathematics**

The department aims at providing the students a comprehensive foundation in Mathematics, increase their employment potential and to undertake meaningful research. At the Undergraduate level the department offers BSc. (Hons) in Mathematics and at the Postgraduate level it offers M.Sc. Mathematics and M.Sc. Mathematics with Specialization in Computer Applications, M. Phil. and Doctoral programme. In addition, the department also offers a Post Graduate Diploma in Big Data, Logistics & Operations Research. The department also offers certain courses to other Faculty and Departments like:

- Computational Methods to M. Tech. students of Engineering
- Engineering Mathematics to B. Tech students of I, II & III Year of Engineering
- VRE Engineering Mathematics to VRE students of Engineering
- Mathematics to students Arts/Social Sc. B.A./B.Sc.
- Math. Methods for Economics to students of B.A. (Hons) Economics of Faculty of Social Science.

The department has recently introduced new Courses like Metric Spaces, Algebra III (Sylow's Ths & Inner Product Sps) and Tensor Analysis at the Honours level, Measure & Integration, Field Theory and Introduction to Riemannian geometry at the MSc level and Statistics for Engineering for the Engineering students of VI Sem.

The thrust areas of research of the department include Fluid Dynamics, Fuzzy Mathematics, Graph Theory, Linear Algebra, Numerical Analysis, Optimization and Topology. The department is also involved in some Interdisciplinary research areas like Mathematical Biology (Use of Differential Equations in Solving Biological Problems), Mathematical Physics (Topological Study of Lorentz Manifolds), Soft Computing (Use of Computing Techniques in Solving Graph Theoretic Problems) and Bio-Technology (Use of Topology and Graph Theory in the Study of Proteins).

The department also has strong collaborations in the area of Linear Algebra with University of Tampere, Finland, Optimization with Christian Albrecht University, Kiel, Germany, Evolutionary Algorithms with CINVESTAV – Tamaulipas, Mexico and Operations Research with Eritria Institute of Technology, Eritria. The members of the department also have active inter-Department collaborations within the institute in the field of Evolutionary Algorithms with Department of Mechanical Engineering, Optimization with Department of Mechanical Engineering and Bio-Technology with Department of Zoology. The department of Mathematics is furnished with a Computing Lab consisting of 22 Desktop Computers: DELL OptiPlex 780n, HP Pro i3/ i5 based computers, a Dell Precision T5500 Workstation, a Dell Power Edge T410 Server and has some licensed software's like MATLAB 7.0 10 user license with symbolic math and statistics toolbox and Systat 9.0. The other equipment's available in the department are a Four Channel Data Acquisition System, Peristaltic Pump, Multi- Channel Flow Meter with Flow Sensors.

The Members of the department are on the Review Boards of Journals like Math Sci Net (American Mathematical Society), Knowledge based Systems, Engineering Optimizations, Computers and Operations Research, Mathematical Reviews, Discussiones Mathematicae, Graph Theory, Statistics in Transition in New Series, Journal of Applied Probability and Statistics, International Journal of Bio-Mathematics, Member, Expert Committee Faculty Selection, ABV- Indian Institute of Information Technology & Management, Gwalior, Reviewer, Project Proposal, Research Council of Sultanate of Oman, Reviewer, IEEE Transactions on Evolutionary Computations, Reviewer, IEEE Access, Resource Person - UGC National workshop on Evaluation Reforms in Higher Education at Hyderabad during July 2019.

# **Thrust Areas of Research:**

- Topology: Physically Relevant Non-Manifold Topologies
- Optimization: Graph Theory, Fuzzy Systems, Operations Research
- Mathematical Modeling: Bio Fluids, Ecology

## **Programs/Courses offered:**

- B.Sc. Mathematics Honours
- M.Sc. Mathematics
- M.Sc. Mathematics with Specialization in Computer Applications
- Post Graduate Diploma in Big Data, Logistics and Operations Research (PGDBDLOR) department
- Ph.D.

## **Facilities in the Department**

**Computing Facility** 

- 22 Desktop Computers, Dell Power Edge T410 Server, Systat 9.0 Departmental Library
- Books and UGC INFLIBNET e-journal

## New Facilities Created in the Department during the year

• 'All in one INTERACTIVE FLAT PANEL' (65 inches)

## **Students Achievements/ Awards**

1. Sushma Sagar cleared UPSC 2023 exam and was selected for Indian Police services.

# **Ongoing Research Projects**

• Virtual Lab- Linear Algebra

# Seminar/Symposia/Conference/Webinar/Workshops/Faculty Development Programme Attended

- Dr. Antika Thapar participated in FDP on Statistics in Education and Social Sciences Research during 22 to 31 May, 2024.
- Dr. Richa Bansal participated in FDP on Statistics in Education and Social Sciences Research during 22 to 31 May, 2024.
- Dr. Dharna Satsangi successfully completed Faculty induction programme at Kumaun University, Gharwal, from 6<sup>th</sup> June to 4<sup>th</sup> July 2024. She also participated in NEP 2020 orientation and sensitization program from 22<sup>nd</sup> July to 31<sup>st</sup> July 2024.

# **Publications**

- 1. Agarwal, G., & Deepanshi. (2024). Nonabelianness of fundamental group of flat spacetime. Reports on Mathematical Physics, *93*(3), 261–270.
- 2. Agarwal, G., & Deepanshi. (2023). Fundamental group and fine topology on Minkowski space. Reports on Mathematical Physics, *91*(1), 39–44.
- 3. Srivastava, S., Bansal, R., & Thapar, A. (2023). Heuristic approach for bandwidth consecutive multi-coloring problem. Journal of Intelligent and Fuzzy Systems, 1–12.
- 4. Agarwal, H., & Sharma, S. (2023). Optimizing technique for solving time minimizing transhipment problem. Journal of Xidian University, 1095–1104.

## **Placements**

- Taruna Dubey was selected by Bihar Public Service Commission (BPSC) as a Primary teacher in December, 2023.
- Arihant Jain was placed as Data Analyst at Pixel Truth, Agra.
- Chitresh Chaudhary and Deeksha Parashar cleared Combined Defence Services in 2024 and were commissioned in Indian Army.
- Yogeshwar Meena cleared UPSC 2024 for Central Industrial Security Force in 2024.
- Arun Kumar Rajput got selected for the Central Reserve Police Force in 2024.
- Kunal Rana got selected for the Indo-Tibetan Border Police in 2023.
- Sarika Sharma got appointed as TGT, Kendriya Vidyalaya in 2023.

# **Department of Physics and Computer Science**

The department of Physics and Computer Science focuses on building a strong foundation in fundamental concepts of Physics while developing expertise in different aspects of electronics and computer science. The department offers the following programs

- B.Sc. (Hons) Physics
- B.Sc. (Hons) Computer Science
- B.Voc. Internet of Things
- B.Voc. Telematics
- B.Voc. Telecommunications
- M.Sc. Physics/Physics with spl. in Electronics/Computer Science
- M.Sc. Computer Science
- PG Diploma in Computer Science & Applications
- Ph.D

The department also offers Courses on Media Processing (Fall) and Intelligent Information Processing (Spring) for M.Sc. Computer Science, and B.Tech. jointly with Dept. of CSE, IITD Under DEI-IITD MoU.

The research areas of the department are Quantum Information Systems, Solar Energy Conversion, Nano-Biophotonics Ultrafast Phenomena involving Nano-Bio-Photonics/Organic/Silicon Photonics, Microwave Devices, Neural Networks and Soft Computing, VLSI Design, Graph Theoretic Quantum Systems Modeling for Information Processing Circuits, Neural Networks and Soft Computing, String Theory and Astrophysics.

The members of the department are on the Editorial boards of Journals such as Journal of Electronic Science and Engineering, Journal of Optical Engineering and Applications, Recent Patents on Signal Processing, International Journal of Computer & Electrical Engineering, International Journal Computer Theory and Engineering and also members of Review Boards of Journals like IEEE Trans. Fuzzy Systems, IEEE Trans. Neural Networks, IEEE Trans. Systems, Man & Cybernetics, IEEE J. Quantum Electronics, IEEE Trans. Evolutionary Computation, Optics Express, Optical Engineering, Optics Communications, Optics and Laser Technology, Photochemistry and Photobiology B, J. Modern Optics, Intl J. Hydrogen Energy, J. Phys. Chem., Materials Research Bulletin, Papers in Physics, Swarm and Evolutionary Computation, General Relativity and Gravitation, Mathematical Reviews, Intl. J. of Computer Theory and Engineering, Intl. J. of Physical Sciences, J. of Petroleum Tech. and Alternate Fuels, J. of Engineering and Computer Innovation, Current Science, Pramana Journal of Physics, Indian Journal of Physics. The department has collaborations with Harvard University, USA, Stanford University, USA, Princeton University, USA, Michigan State University, USA, University of California Santa Barbara, USA, University of Maryland, College Park, USA, Arizona State University, Tempe, USA, Department of Computer Science, University of Calgary, Alberta,

Canada, Northeastern University, USA, The University of British Columbia, Okanagan Campus, University of Waterloo, Canada, Max Planck Institute for Science of Light, Germany, Hokkaido University, Sapporo, Japan, TIFR, Mumbai, TIFR, Bengaluru, IISc., Bengaluru, JNCASR, Bengaluru, IIT Delhi, IIT Kanpur, Inter-University Accelerator Centre, New Delhi, National Physical Lab., New Delhi, CDAC, Pune and Indian Oil Corporation, Faridabad.

The department hosts an Under-Graduate Research Award (UGRA) to 5-6 bright students selected annually from Science and Engineering in research areas of the Department.

# **Thrust Areas of Research**

Quantum Information, Nano-Bio-Photonics, High Energy Physics, Microwaves, Soft Computing, Image Processing, Decision Support Systems.

# **Programmes Offered:**

- 1. B.Sc. (Hons.) Physics
- 2. B.Sc. (Hons.) Computer Science
- 3. B.Voc. Telematics
- 4. B.Voc. Internet of Things (IOT)
- 5. B.Voc. Telecommunications
- 6. M.Sc. Physics/spl. in Electronics
- 7. M.Sc. Computer Science
- 8. PG Diploma in Comp. Sci. & Applns.
- 9. Ph.D.

# **Facilities in the Department**

# **Research Laboratories**

The department has state of the art laboratories such as IOT Laboratory, 5G Laboratory, Neural Networks & Robotics Laboratory, Quantum Computing Laboratory, Nano-structured Thin Film Laboratory, Photonics Laboratory, Nuclear Electronics Laboratory, VLSI Design Laboratory, Microwave Laboratory, Computing Laboratory. Computing facility in the Quantum Computing Laboratory, Various Drones, sensors and devices for IOT Applications and Femtosecond Transient Absorption Spectrometer in the Photonics Lab.

# Equipment

The department is equipped with state of the art instruments, Pentium III/IV PCs, TFT Monitor, Linux, Solaris8 and Netmax Firewall, Xilinx Development Kits, Cluster Control Switches, Kr-Ar ion tunable laser, He-Ne laser (17 mW), Laser Power Meters (2), Vibration Isolation Table & Neutral Density Filter, Holography Kit, , Mathematica 4.0 Upgrade, Furnace, PCB Prototype Machine, Fingerprinting Data Acquisition Tool + DSK Kit, GM Counter, Gamma Ray Spectrometer, Radiation Counting System, , Atomic Force Microscope, Nanosecond Laser Flash Photolysis System, UV-VIS

Spectrophotometer, Z-Scan Spectroscopy System, Surface Profiler, HP RF Vector Network Analyzer, PCB Prototype Machine, MATLAB Software, Nanosecond-Nd:YAG laser, Selective Radiometer, Rotating Electromagnet, R & S Network Analyzer 10 MHz-50 GHz, Dell High Performance Computing Cluster (24 nodes), Multichannel Analyzer with Maestro software, CAMAC Crate with controller, Mathematica 12 (10-user site licence), Femtosecond Transient Absorption Spectrometer.

# Faculty/Staff Achievements/ Awards

- Prof. Sukhdev Roy was listed in Stanford's Study of Top 2% in World Ranking of Scientists in Optoelectronics and Photonics, Sept. 2023.
- Prof. Sukhdev Roy was elected Fellow of the International Society of Optics and Photonics (SPIE), 2023.
- Prof. Sukhdev Roy was elected as Distinguished Fellow of the Optical Society of India, December, 2023.
- Prof. Sukhdev Roy delivered the following Addresses/Talks

# **Keynote Addresses**

- 1. *"Efficient Optogenetic Control of Neuronal and Cardiac Activity"*, 5<sup>th</sup> Global Webinar on Lasers, Optics and Photonics, April 17-18, 2024.
- 2. "Computational Modeling of Optogenetic Control of Neurons and Human Cardiomyocytes", 4<sup>th</sup> Global Webinar on Laser, Optics and Photonics, August 29-30, 2023.

## **Plenary Talks**

- 3. *"Controlling the Brain and Heart with Light"*, 3<sup>rd</sup> Global Webinar on Lasers, Optics and Photonics, August 01-02, 2023.
- Invited Talks
  - 1. Dr Sonali Bhatnagar, Asst. Professor, Department of Physics and Computer Science, DEI, delivered the keynote lecture titled "Geant4 based studies of Dayalbagh Educational Air Shower Array (DEASA)" in the 3rd International Conference on Advancement in Core and Frontier of Physics, organized by GLA University, Mathura from 02 to 04 February, 2024.
- Prof. Sukhdev Roy as Member of Organizing Committees of Conferences/Workshops
  - 1. 3<sup>rd</sup> Global Webinar on Laser, Optics and Photonics, August 01-02, 2023.

# Students' Achievements/ Awards/Prizes

1. 2<sup>nd</sup> Prize with Cash Prize of Rs. 12,000/-: Skyhawks: Varun Shrivastav, Aditya Vardhan, Mohit Yadav, Vinay Singh, Aman Sharma, Deepak Kumar, Sumit Sharma, at the "Drone Assembly and Piloting", Skyrush-ESYA, organized by IIIT Delhi, Aug. 25 and 26, 2023.

2. 2<sup>nd</sup> Prize with Cash Prize of Rs. 5,000/-: Vinay Singh, Varun Shrivastav, Mohit Yadav, Aditya Vardhan, Deepak Kumar, at the "Science Exhibition and Innovation", Zila Vigyan Club, M.D. Jain, Agra, March 11, 2024.

## **Best Paper Awards**

- Abhishek Gupta was awarded the Best Poster Award at 5<sup>th</sup> Winter Session of Dayalbagh Science of Consciousness, at Dayalbagh Educational Institute Agra, 2024.
- 2. Himanshu Bansal, a research scholar in the Department of Physics and Computer Science was awarded the Best Poster Presentation Award alongwith a cash prize of €100, from Springer Nature, at the prestigious Biennial International Conference on Photonics (PHOTONICS-2023) at the Indian Institute of Science, Bengaluru, held during July 5-8, 2023.
- 3. Himanshu Bansal was awarded the Best PHD Thesis Awrad (1st-Runner-UP) with a cash prize, and Best Poster Paper Award, respectively, at the 6<sup>th</sup> IEEE International Workshop on Recent Advances in Photonics (WRAP-2023), at the Indian Institute of Information Technology (IIIT) Allahabad, December 7-9, 2023.
- 4. Gur Pyari was awarded the Best Poster Award at the 6<sup>th</sup> IEEE International Workshop on Recent Advances in Photonics (WRAP-2023), at the Indian Institute of Information Technology (IIIT) Allahabad, December 7-9, 2023.
- 5. Mridul Kumar was awarded the Best Paper Presentation Award at the 3<sup>rd</sup> International Conference on Innovative Research in Sciences, Technology, Agriculture, Environment, Business Management and Humanities, at the National Institute of Technology (NIT) Srinagar, Jammu and Kashmir, May 13-14, 2023.

# **Ongoing Projects**

S.No.	Name of the PI and Co-PI	Title of the project	Duration	Funding agency	Amount (lakhs)
1.	Prof. Sukhdev Roy	Computational Modeling of Optogenetic Control of Neurons	2022-25	DST	42.28
2.	Prof. Sukhdev Roy	Computational Modeling of Optogenetic Control of Heart	2022-25	DST	6.60
3.	Dr. Shiroman Prakash	Magic State Distillation with Qudits	2023-26	DST	22.53
4.	Ms. K. Ramya	Study of Faulty Tolerant Quantum Computing with Qudits	2024-27	DST-WISE	20.22
5.	Dr. Ravindra Bharadwaj	Smart Agriculture Monitoring System using Internet of Things Devices	2023-24	DEI Seed Money Grant	2.00
	Total				93.63

S.No.	Name of the PI	Title of the project	Duration	Funding agency	Amount (lakhs)
1.	Ms. K. Ramya Research Scholar	Study of Faulty Tolerant Quantum Computing with Qudits	2024-27	DST- WISE	20.22
	Total			Total	20.22

#### New R & D projects Sanctioned

## **Publications**

- 1. Bansal, H., Pyari, G., & Roy, S. (2024). Theoretical prediction of broadband ambient light optogenetic vision restoration with ChRmine and its mutants. Scientific Reports, *14*(1), 11642.
- 2. Saifi, A., & Roy, S. (2024). Ultrafast reverse saturable absorption and alloptical computing with boron dipyrromethene (BODIPY) chromophore derivatives. Journal of Nonlinear Optical Physics & Materials, 24, 2450018.
- 3. Saifi, A., & Roy, S. (2024). Ultrafast saturable to reverse saturable absorption transition in CoTCPP SURMOF nanofilms and its application to all-optical logic and encryption. Journal of Nonlinear Optical Physics & Materials.
- 4. Singh, U., Saifi, Z., Tirumalai, P. S., & Krishnananda, S. D. (2024). Unveiling bacterial communication with a MATLAB GUI implementing the diffusion-based quorum sensing model. Scientific Reports, 14(1), 13104.
- 5. Varshney, S., Singh, S., Lakshmi, C. V., & Patvardhan, C. (2024). Content-based image retrieval of Indian traditional textile motifs using deep feature fusion. Scientific Reports, 14(1), 10035.
- 6. Prakash, S., & Sinha, S. K. (2024). Emergent supersymmetry at large N. Journal of High Energy Physics, 2024(1), 1–65.
- 7. Prakash, S., & Saha, T. (2024). Low overhead qutrit magic state distillation. arXiv preprint.
- 8. Toofani, A., Singh, L., & Paul, S. (2024). From interpretation to explanation: An analytical examination of deep neural network with linguistic rule-based model. Computers and Electrical Engineering, 117, 109258.
- 9. Gautam, S., Das, D. B., & Saxena, A. K. (2024). Economic indicators evaluation to study the feasibility of a solar agriculture farm: A case study. Solar Compass, *10*, 100074.
- 10. Bhatnagar, S. (2024). Polystyrene-based scintillation detector studies in astro-particle physics and medical physics. arXiv preprint.
- 11. Saraswat, Y., Bhardwaj, C., Kumari, S., Prasad, A., & Rao, A. S. (2024). Study of structural and spectroscopic properties of Dy<sup>3+</sup> ions doped potassium magnesium molybdate single-phase phosphor for white lighting applications. Journal of Materials Science: Materials in Electronics, 35(28), 1869.

- 12. Kumari, S., Rohilla, P., Prasad, A., Rao, A. S., & Sinha, R. K. (2024). Structural characterization and luminescence characteristics of  $Dy^{3+}$  doped  $Sr_9Y_2W_4O_{24}$  phosphor for application in white-LEDs. Journal of Luminescence, 275, 120791.
- 13. Tayal, Y., Talewar, R. A., Mahamuda, S., Maheshwari, K., Kumari, S., Kumar, M., Pilania, R., Prasad, A., & Rao, A. S. (2024). Enhanced emission in the NIR range by Nd<sup>3+</sup> doped borosilicate glass for lasing applications. Applied Physics B, 130(9), 157.
- 14. Ravita, Prasad, A., Rohilla, P., Bajaj, R., Anu, Punia, R., & Rao, A. S. (2024). Luminescence studies on Dy<sup>3+</sup> doped calcium aluminum borosilicate (CABS) glasses for white light emission and applications in w-LEDs. Journal of Fluorescence, 34(4), 1783–1792.
- 15. Rohilla, P., Prasad, A., & Rao, A. S. (2024). Structural and luminescence studies on thermally stable Bi<sup>3+</sup>-activated Ba<sub>3</sub>MoTiO<sub>8</sub> phosphors for near UVpumped w-LED applications. International Journal of Applied Ceramic Technology, 21(2), 1208–1219.
- 16. Kumari, S., Prasad, A., Rao, A. S., & Sinha, R. K. (2024). Up-conversion luminescence in  $Sr_9Y_2W_4O_{24}$ : Ho<sup>3+</sup>, Yb<sup>3+</sup> phosphors for applications in temperature sensing and w-LEDs. Emergent Materials, *2024*, 1–16.
- 17. Maurya, S., Kumari, S., Rohilla, P., Prasad, A., & Rao, A. S. (2024). Dy<sup>3+</sup> doped KCa(PO<sub>3</sub>)<sub>3</sub> phosphor for white light generation: Structural and luminescent studies. Physica Scripta, *99*(6), 065573.
- 18. Kumari, S., Rohilla, P., Diwakar, S., Talewar, R. A., Shandilya, A., Tayal, Y., Swapna, K., Prasad, A., & Rao, A. S. (2024). Synthesis, analysis, and characterization of Dy<sup>3+</sup> ions-doped CaBi<sub>2</sub>Nb<sub>2</sub>O<sub>9</sub> phosphors for optoelectronic device applications. *Journal of Materials Science:* Materials in Electronics, 35(12), 867.
- 19. Rohilla, P., Kumari, S., Diwakar, S., Talewar, R., Shandilya, A., Maheshwari, K., Venkateswarlu, M., Prasad, A., & Rao, A. S. (2024). Colour tuning in Sm<sup>3+</sup> activated and Sm<sup>3+</sup>/Eu<sup>3+</sup> co-activated SrBi<sub>4</sub>Ti<sub>4</sub>O<sub>15</sub> phosphors for w-LED applications. Journal of Molecular Structure, 1312, 138521.
- 20. Kumar, M., Sahu, M. K., Kaur, S., Prasad, A., Bajaj, R., Talewar, R. A., Tayal, Y., Swapna, K., & Rao, A. S. (2024). Visible and NIR spectral analysis of Er<sup>3+</sup> doped LiBiAlBSi glasses for laser applications. Journal of Materials Science: Materials in Electronics, 35(7), 504.
- 21. Varshney, S., & Srivastava, G. M. S. (2024). Blockchain security for fog computing. In Fog Computing for Intelligent Cloud IoT Systems (p. 357).
- 22. Tyagi, B., Dixit, K., Sahai, A., & Sharma, R. S. (2024). Characterization of flexural and compressive behavior in polylactic acid composites for low-cost transtibial prosthetic applications: Influence of reinforcements. Journal of Applied Polymer Science, 141(18), e55319.

- 23. Kumar, M., Saifi, Z., & Krishnananda, S. D. (2023). Decoding the physiological response of plants to stress using deep learning for forecasting crop loss due to abiotic, biotic, and climatic variables. Scientific Reports, 13(1), 8598.
- 24. Prakash, S. (2023). Spectrum of a Gross-Neveu Yukawa model with flavor disorder in three dimensions. Physical Review D, 107(6), 066025.
- 25. Kapoor, S., & Prakash, S. (2023). Bifundamental multiscalar fixed points in d =  $3 \varepsilon$ . Physical Review D, 108(2), 026002.
- 26. Saifi, A., & Roy, S. (2023). Ultrafast nonlinear absorption in MoTe2 and MoTe2/MoS2 nanocomposite films and its application to all-optical logic gates. Laser Physics, 33(12), 125402.
- Pyari, G., Bansal, H., & Roy, S. (2023). Optogenetically mediated large volume suppression and synchronized excitation of human ventricular cardiomyocytes. Pflügers Archiv-European Journal of Physiology, 475(12), 1479–1503.
- 28. Bansal, H., Pyari, G., & Roy, S. (2023, May). Optogenetic generation of neural firing patterns with temporal shaping of light pulses. Photonics, 10(5), 571.
- 29. Prasad, A., Rohilla, P., Shandilya, A., & Rao, A. S. (2023). Photoluminescence and energy transfer studies on Tm<sup>3+</sup>/Dy<sup>3+</sup>/Eu<sup>3+</sup> doped borosilicate glasses for color tunability and warm white light generation. Journal of Non-Crystalline Solids, 606, 122192.
- 30. Kumari, S., Anu, Prasad, A., Rohilla, P., & Rao, A. S. (2023). Prospective applications of thermally stable Dy<sup>3+</sup> doped potassium zinc strontium borate (KZSB) glasses in w-LEDs. Journal of Materials Science: Materials in Electronics, 34(10), 907.
- Tayal, Y., Talewar, R. A., Mahamuda, S., Prasad, A., Maheshwari, K., Kumar, M., & Rao, A. S. (2023). Spectral characterization and energy transfer study of Nd<sup>3+</sup>/Yb<sup>3+</sup> in borosilicate glasses. Optical Materials, 142, 114049.
- 32. Maheshwari, K., Prasad, A., Tayal, Y., & Rao, A. S. (2023). Spectroscopic studies of Pr<sup>3+</sup> doped red-emitting BaO–ZnO–Li<sub>2</sub>O–P<sub>2</sub>O<sub>5</sub> glasses for luminescent devices applications. Optical Materials, 140, 113910.
- 33. Singh, V., Lee, J. K., Prasad, A., & Rao, A. S. (2023). Photoluminescence and defect centers in near violet emitting Pb<sup>2+</sup> doped CaYAl<sub>3</sub>O<sub>7</sub> phosphors obtained by urea-nitrate auto combustion synthesis. Ceramics International, 49(2), 3076–3082.
- 34. Singh, V., Prasad, A., Seshadri, M., Kaur, S., & Rao, A. S. (2023). Radiative properties of green-emitting  $Ho^{3+}$  doped  $Y_2SiO_5$  system: Exploring the potential use as a phosphor. Journal of Materials Science: Materials in Electronics, 34(36), 2304.
- 35. Ravita, Prasad, A., Rohilla, P., Bajaj, R., Anu, Punia, R., & Rao, A. S. (2023). Luminescence studies on Dy<sup>3+</sup> doped calcium aluminum borosilicate (CABS)

glasses for white light emission and applications in w-LEDs. Journal of Fluorescence, 1-10.

- 36. Maheshwari, K., Prasad, A., Pilania, R., Mahamuda, S., Tayal, Y., & Rao, A. S. (2023). Thermally stable multi-color emitting Dy<sup>3+</sup>/Eu<sup>3+</sup> co-doped BaO–ZnO–Li<sub>2</sub>O–P<sub>2</sub>O<sub>5</sub> glasses for w-LEDs. Journal of Materials Science: Materials in Electronics, 34(31), 2059.
- 37. Sharma, V., Maurya, S., Anu, Prasad, A., & Rao, A. S. (2023). Structural, optical, and luminescence properties of Dy<sup>3+</sup>-activated potassium calcium silicate phosphor for white light-emitting diodes. Luminescence, 38(9), 1607–1617.
- 38. Bajaj, R., Rohilla, P., Prasad, A., Ravita, Shandilya, A., & Rao, A. S. (2023). Thermally stable Sm<sup>3+</sup>-doped alkali zinc alumino borosilicate (AZABS) glass for warm white light generation and w-LED applications. Luminescence, 38(4), 428–436.
- 39. Soniya, Singh, L., & Paul, S. (2023). Hybrid evolutionary network architecture search (HyENAS) for convolution class of deep neural networks with applications. Expert Systems, 40(4), e12690.
- 40. Gupta, P., Jangid, A., & Kumar, R. (2023). Assessment of aerosol optical and physical properties and implications for radiative effects over the semiarid region of Indo-Gangetic Basin. Geological Journal, 58(12), 4319–4332.
- 41. Varshney, S., Lakshmi, C. V., & Patvardhan, C. (2023). Madhubani art classification using transfer learning with deep feature fusion and decision fusion-based techniques. Engineering Applications of Artificial Intelligence, 119, 105734.
- 42. Sharma, L., Chellapilla, V. L., & Chellapilla, P. (2023). Socio-inspired evolutionary algorithms: A unified framework and survey. Soft Computing, 27(19), 14127–14156.
- 43. Mishra, A., & Singh, P. (2023). A hybrid approach to ontology evaluation. Mathematics and Computer Science, 2, 187–204.
- 44. Singh, P., & Dev, V. (2023). Data warehouse with OLAP technology for the tourism industry. In Encyclopedia of Data Science and Machine Learning (pp. 191–211). IGI Global.
- 45. Singh, U. and Krishnananda, S.D., (2024). Probing the Electromagnetic Interaction in the Protein. In Brain-like Super Intelligence from Bio-electromagnetism (pp. 189-207). Singapore: Springer Nature Singapore.
- 46. Bhatnagar, S., (2023). DEASA studies and applications to space physics and muon tomography. SciPost Physics Proceedings, (13), p.023.
- 47. Gupta, P., Jangid, A. and Kumar, R., (2023). COVID-19-associated 2020 lockdown: a study on atmospheric black carbon fall impact on human health. Environmental Geochemistry and Health, 45(6), pp.3507-3520.
- 48. Gupta, A. and Markan, C.M., (2023). Empirical Measurement of Aesthetic Experience of Music. arXiv preprint arXiv:2306.07802.

#### **Conference Publications**

- Pyari, G., Bansal, H., & Roy, S. (2024). Optogenetic control of human heart with light-gated potassium channelrhodopsin. In *OPTOIN 2024*, CSIR-CSIO Chandigarh, October 23<sup>rd</sup>-25<sup>th</sup>, 2024.
- 2. Pyari, G., Bansal, H., & Roy, S. (2024). Improved optogenetic suppression of electrical activity in human ventricular cardiomyocytes with ChRmine. In *ICOP 2024*, Italy (Virtual). (Abstract accepted for poster presentation).
- Dixit, N., Pyari, G., & Roy, S. (2024). Optical control of synaptic plasticity with calcium-selective channelrhodopsin. In 47th (Inter)National Systems Conference (NSC), Systems Society of India and DEI, September 23<sup>rd</sup>-25<sup>th</sup>, 2024.
- 4. Yadav, M., Shrivastav, V., Vardhan, A., Chauhan, A. S., & Saini, S. (2024). Appraisal study and analytics of Industry 4.0: A rebellion towards existing twins. In 2024 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS) (pp. 1–11). IEEE.
- Shrivastav, V., Yadav, M., Sharma, A., Kumar, D., Sharma, S., & Chauhan, A. S. (2024). IoT and IoE transformations in precision farming agriculture: Sensorbased monitoring, automated irrigation, and livestock monitoring. In 2024 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS) (pp. 1–14). IEEE.
- 6. Mangal, M., Markan, C. M., & Markan, A. (2023). Modeling an in-band fullduplex transceiver through analog self-interference cancellation for 5G system designs. In *2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT)* (pp. 1–6). IEEE.
- Pyari, G., Bansal, H., & Roy, S. (2023). Novel method for efficient control of human heart with light. In 6th IEEE Workshop on Recent Advances in Photonics (Paper ID 51), IIIT Allahabad, December 7–9, 2023.
- Agarwal, K., Yadav, P., Lakshmi, C. V., Vuppuluri, P. P., & Patvardhan, C. (2023). Clustering-based heuristic approaches for the Euclidean leaf-constrained minimum spanning tree problem. In *IEEE 20<sup>th</sup> India Council International Conference (INDICON)* (pp. 819–824).
- 9. Varshney, S., Singh, S., Lakshmi, C. V., & Patvardhan, C. (2023). Traditional Indian textiles classification using deep feature fusion with curvelet transforms. In IEEE 6<sup>th</sup> International Conference on Information Systems and Computer Networks (ISCON) (pp. 1–5).
- 10. Singh, M., Patvardhan, C., & Lakshmi, C. V. (2023). Does ChatGPT spell the end of automatic question generation research? In *IEEE International Conference on Computer Vision and Machine Intelligence (CVMI)* (pp. 1–6).
- Chaturvedi, S., Patvardhan, C., & Lakshmi, C. V. (2023). AI value alignment problem: The clear and present danger. In IEEE 6<sup>th</sup> International Conference on Information Systems and Computer Networks (ISCON) (pp. 1–6).

- 12. Yadav, M., Vardhan, A., Chauhan, A. S., & Saini, S. (2023). A study on creation of Industry 5.0: New innovations using big data through artificial intelligence, Internet of Things, and next-generation technology policy. In *IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS)* (pp. 1–12).
- 13. Bansal, H., Pyari, G., & Roy, S. (2023). Novel optogenetic method for lowpower high-fidelity sustained neural spiking. In *International Conference on Photonics* (p. 18). IISc Bengaluru, India, July 5–8.
- 14. Pyari, G., Bansal, H., & Roy, S. (2023). Optical suppression of tachyarrhythmia in human heart with potassium-selective channelrhodopsin. In *International Conference on Photonics* (p. 18). IISc Bengaluru, India, July 5–8.
- 15. Pyari, G., Bansal, H., & Roy, S. (2023). In-vivo large-volume optogenetic suppression and synchronized excitation of human ventricular cardiomyocytes. In *Conference on Lasers and Electro-Optics (CLEO)* (Paper No. JTu2A.57), San Jose, USA, May 7–12.
- 16. Pyari, G., Bansal, H., & Roy, S. (2023). Improved optogenetic suppression of electrical activity in human ventricular cardiomyocytes with ChRmine. In *Optogenetics and Optical Manipulation 2023*, SPIE Photonics West (Paper No. 12366-21), San Francisco, USA, January 28–February 2.
- 17. Saifi, A., & Roy, S. (2023). Ultrafast all-optical switching and computing with organic molecules. In *International Conference on Multidisciplinary Approaches in Engineering, Science, Agriculture, and Social Sciences*. Agra.
- 18. Saifi, A., & Roy, S. (2023). Ultrafast photonic logic gates with organic chromophore molecules. In 6<sup>th</sup> IEEE Workshop on Recent Advances in *Photonics* (Paper ID 66), IIIT Allahabad, December 7–9.

## **Books**

1. Ravindra Bhardwaj, Kamna Singh, Rekha Baghel, Amrita Bhatnagar, Fundamentals of Python Programming, SCIENT, ISBN: 9789361320996, 2024.

## **Book Chapters**

1. H. Bansal and S. Roy, "Recent advances in Optogenetic Retinal Prosthesis", Chapter 10, in Medical and Surgical Retina - Recent Innovation, New Perspective, and Applications, IntechOpen Ltd., London, 2023.

## **Patents Granted**

## Indian

- 1. Payal Patial, Ravindra Bharadwaj, Anand Swaroop, Arokiaraj Christian St. Hubert, Amrutanshu Panigrahi, Abhilash Pati, "AI Based Wall Plastering Machine", Patent No.: 400861-001, 18-01-2024.
- 2. C.V. Lakshmi, "Method and System Searching within an image database", Patent No.: 432894, 25-5-2023.

3. Mridul Kumar, Soami Daya Krishnananda, Zeeshan : Apparatus and Method for Determining Plant Stress, Application No.: 202111033265, Date of Filing: 23-07-2021, Date of Publication: 03-09-2021, Date of Grant: 1-10-2024.

## International Patents: UK Design Patents

	Title	: Light Weight Drone
	Design Number	: 6299404
	Grant Date	: 05 August 2023
	Registration Date	: 27 July 2023
	Inventors	: Amarjeet Singh Chauhan, Nitin Parmar, Deepak Kumar, Sumit Sharma, Aman Sharma, Varun Shrivastav, Vinay Singh, Aditya Vardhan, Mohit Yadav, Sanjay Saini and Sukhdev Roy
2.	Title	: High Payload 16 Rotor Aerial System
	Design Number	: 6304506
	Registration Date	: 18/08/23
	Grant Date	: 28/09/2023
	Inventors	: Sudesh Yadav, Amarjeet Singh Chauhan, Mohit Yadav, Aditya Vardhan, Varun Shrivastav, Nitin Parmar, Sumit Sharma, Deepak Kumar, Sanjay Saini, Sukhdev Roy
3.	Title	: 32 Rotor High Payload Drone
	Design Number	: 6312678
	Grant Date	: 09 October 2023
	Registration Date	: 19 September 2023
	Inventors	: Sudesh Yadav, Amarjeet Singh Chauhan, Mohit Yadav, Aditya Vardhan, Nitin Parmar, Deepak Kumar, Sumit Sharma, Varun Shrivastav, Aman Sharma, Sanjay Saini and Sukhdev Roy
4.	Title	: Remote Controlled Helicopter Drone
	Design Number	: 6309933
	Grant Date	: 11/10/2023
	Inventors	: Amarjeet Singh Chauhan, Mohit Yadav, Aditya Vardhan, Varun Shrivastav, Nitin Parmar, Aman Sharma, Sumit Sharma, Deepak Kumar, Sanjay Saini, Sukhdev Roy

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5.	Title	: Medicine Delivery Drone
	Design Number	: 6317960
	<b>Registration Date</b>	: 12/09/23
	Grant Date	: 16/10/2023
	Inventors	: Amarjeet Singh Chauhan, Mohit Yadav, Aditya Vardhan, Varun Shrivastav, Nitin Parmar, Aman Sharma, Sumit Sharma, Deepak Kumar, Sanjay Saini, Sukhdev Roy
6.	Title	: Device for Monitoring and Distribution of Nutrients in Hydroponics
	Design Number	: 6326599
	<b>Registration</b> Date	: 17/11/23
	Grant Date	: 07/12/23
	Inventors	: Amarjeet Singh Chauhan, Mohit Yadav, Aditya Vardhan, Nitin Parmar, Deepak Kumar, Varun Srivastava, Aman Sharma, Sumit Sharma, Vinay Singh, Sanjay Saini, Sukhdev Roy
7.	Title	: Printed Circuit Board
	Design Number	: 6328234
	Registration Date	: 24/11/2023
	Grant Date	: 08 April 2024

Inventors : Amarjeet Singh Chauhan, Mohit Yadav, Aditya Vardhan, Varun Shrivastav, Deepak Kumar, Sumit Sharma, Aman Sharma, Sanjay Saini, Sukhdev Roy.

# **Patents Filed**

1.	Title	: High Speed VTOL Drone
	Application No.	: 400661-001
	Date of Filing	: 25/11/23
	Date of Publication	: 30-11-2023
Inventors		: Amarjeet Singh Chauhan, Mohit Yadav, Aditya Vardhan, Varun Srivastava, Deepak Kumar, Aman Sharma, Sumit Sharma, Sanjay Saini and Sukhdev Roy

# Supervision of Joint Indian Academy of Sciences Summer Research Fellows

- 1. Nithya Priya, MSc. Physics 1<sup>st</sup> year, University of Madras, 2024.
- 2. Naman Kapoor, M.Sc. Physics 1<sup>st</sup> year, IIT Roorkee, 2023.

# Department of Zoology

The Department of Zoology was established in the year 1970 as a premier Centre for teaching and research in Zoology under the Radhasoami Educational Institute (REI) and in 1981 became part of the Dayalbagh Educational Institute, (DEI) Deemed University. The Department is headed by Prof. Sant Prakash and comprises of 3 Professors, 1 Associate Professor, 5 Assistant Professors, 1 Emeritus Professor and 1 Guest Faculty. The Department emphasizes a seamless transition from Classical Zoology to frontier areas of Zoology with active interspersion of inter-disciplinary research. The current research and teaching areas in the Department include Molecular Genomics; Geno-toxicity, Computational Biology, Vector Control Entomology, Vector Control Parasitology; Molecular Systematic; Evolution and Biodiversity, Cell-Biotechnology and Nano-biotechnology, Neurobiology, Molecular Genetics & Evolutionary Biology, Sustainable Eco-Development & Biodiversity Conservation. The faculty is actively involved in participatory research under Institutes MOU programmes with ICGEB, University of Missouri, USA, University of Maryland USA, National Institute of Health and Family Welfare (NIHFW / ICMR) New Delhi, Centre for Research on Goats (CIRG / ICAR) Mathura, MOU DBT - Biotech Park Lucknow, National JALMA Research Institute for Leprosy and other Mycobacterial Diseases (JALMA) Agra, Advanced Treatment Institute, Tassilo, Gauting Germany, MOU International Centre for Genetic Engineering and Biotechnology (ICGEB) New Delhi. The faculty in the department are acclaimed for their high achievements as Fellow of Royal Society of Entomology; INSA; JURY Member of DST-INSPIRE AWARDS; Members of the Selection Boards of Professors of other institutions; Member of the Academic Bodies of other Universities; Reviewers and Editors of various National and International Journals. The department also has extramural funding from DST, DBT and UGC, besides receiving the grant under the DST-FIST programme.

The department also extends support to the government agencies such as UP Forest Department, Jal Nigam, RSS Sabha for Laboratory Testing, Assessments, and Inventories. The Department has been holding various National and International Seminars and conferences to provide a platform for scientific exchanges. Two Patents have been filed and Fourteen Unique Gene Sequences have been registered at NCBI, USA by the Faculty members. Recently the department has procured Real Time PCR (qPCR), Gradient PCR, Sonicator, Water purification system, Phase contrast microscope and several Computers. The department offers the following programmes:

- 1. B.Sc. (Hons.) Zoology
- 2. M.Sc.
- 3. Ph.D.

It offers Add on Work Experience advanced Certificate Course on:

- 1. Cell Biotechnology (I VI Semester) and
- 2. Bioinformatics (I II Semester)

The Department has introduced advanced courses on Neurobiology and Neuroscience for B.Sc. (Hons.) students and at the Postgraduate level level.

The Department has state of the art research Labs in areas:

- 1. Molecular Genetics Lab
- 2. Cell Biotechnology Lab.
- 3. Neurobiology and Bioinformatics Lab
- 4. Applied Entomology Lab
- 5. Molecular Parasitology Lab
- 6. Animal Behavior and Cognitive Lab

These labs are supported additionally By the DST-FIST

# New Facilities Created in the Department during the year

• Fluorescent Imaging Facility.

# **Sophisticated Facilities in the Department**

Name (with Model & Make)				
RT-PCR ; Model: LIGHT CYCLER-96 ; ROCHE Diagnostics				
GRADIENT PCR; Model: SURE CYCLER 8800;AGILENT Technologies				
SONICATOR; Model: VCX-750-220 ;SONICS				
Water Purification System; Model: PURE LAB OPTION S7;ELGA VEOLIA				
Spectrophotometer; Model: UV-visible ;Ependorff				
ELISA reader;Model: EPOCH Gen5;Biotech				
-20 °C Deep Freezer;Model: Thermotech LCD6;Benchtop equipment Inc.				
Analytical balance ;Model:D307040836;Shimadzu Inc.				
BOD incubator; Model: INF300; Infinity Scientific Solutions				
-20 °C Deep Freezer;Model: Thermotech LCD6;Benchtop equipment Inc. Analytical balance ;Model:D307040836;Shimadzu Inc.				

• Sequences published at the National Center for Biotechnology Information (NCBI)

S. No.	GenBank Accession Nos.	Description	Authors
1.	PQ476669	<i>Cyrtophora citricola</i> silk protein (Masp2) mRNA, partial cds	Ruchi Singh, Prof. Sant Prakash and Prof. Alka Prakash
2.	PQ465883	<i>Neoscona theisi</i> silk protein (Masp2) mRNA, partial cds	Ruchi Singh, Prof. Sant Prakash and Prof. Alka Prakash
3.	PQ451907	<i>Neoscona theisi</i> silk protein (Masp1) mRNA, partial cds	Ruchi Singh, Prof. Sant Prakash and Prof. Alka Prakash

4.	PQ442772	<i>Crossopriza lyoni</i> silk protein (Masp1) mRNA, partial cds	Ruchi Singh, Prof. Sant Prakash and Prof. Alka Prakash
5.	PQ298979	<i>Crossopriza lyoni</i> silk protein (Masp2) mRNA, partial cds	Ruchi Singh, Prof. Sant Prakash and Prof. Alka Prakash
6.	PQ163290	<i>Cyrtophora citricola</i> major ampullated silk protein (Masp1) gene, partial cds	Ruchi Singh, Prof. Sant Prakash and Prof. Alka Prakash

# Faculty/Staff Achievements/ Awards

- Prof. Sant Prakash Chaired the session on Neurotoxicity at the Indian Academy of Neuroscience annual conference, Gwalior. 2023.
- Prof. Sant Prakash is the nominated Expert for the UP Govt. Environment Assessment Committee, 2023
- Prof. Sant Prakash is the Advisor in the Air Safety Committee of Agra, 2023
- Prof. Sant Prakash is the nominated Expert for Eco Sensitive Zone committee of UP Forest Department, 2024
- Prof. Sant Prakash was the invited member for the Taj Trapezium vision document Plan, 2023
- Prof. Alka Prakash, Chaired the session on Neurodegenerative disease at the Indian Academy of Neurosce annual conference at Gwalior, 2023
- Prof. Alka Prakash chaired sessions at the workshop on "Impact of Climate Change on Biological Systems (ICCBS-2024), organized by Association of Indian Universities- Dayalbagh Educational Institute- Academic and Administrative Development Centre and the Department of Zoology, DEI, Agra from 15-20 April, 2024.
- Prof. Alka Prakash evaluated Ph.D. thesis as an examiner for candidates from North Eastern Hill University (NEHU) and Rajasthan University.
- Prof. Alka Prakash served as external Examiner to P.G. students from Agra Univ., Jiwaji Univ., Gwalior and Rajasthan univ., Jaipur.
- Prof. Alka Prakash is Member of Research committees at IIS Univ., Jaipur.
- Prof. Shabd Preet was member of organizing team and also chaired sessions in a Short-term Workshop on "Impact of Climate Change on Biological Systems", Organized by Association of Indian Universities-Dayalbagh Educational Institute-Academic & Administrative Development Centre and the Department of Zoology, DEI, Agra from 15 - 20 April, 2024.
- Dr. Amla Chopra served as Co-Coordinator and chaired sessions in a Shortterm Workshop on "Impact of Climate Change on Biological Systems", Organized by the Association of Indian Universities-Dayalbagh Educational

Institute-Academic & Administrative Development Centre and the Department of Zoology, DEI, Agra from 15 - 20 April, 2024.

- Dr. Reshma Bhatnagar received the Women Icon Gold Award for Excellence in Teaching and Education in Senior Leader category in the 4<sup>th</sup> Women Achiever Awards ceremony organized by PNGI Forum, Gurgaon Chapter, held on 13 April, 2024.
- Dr. Reshma Bhatnagar was member of organizing team for conducting sessions in the Short-Term Workshop on "Impact of Climate Change on Biological Systems", organized by the Association of Indian Universities-Dayalbagh Educational Institute-Academic & Administrative Development Centre and the Department of Zoology, DEI, Agra from 15 20 April, 2024.
- Dr. Lalit Mohan delivered an Invited Talk on "Climate Change and Inset Dynamics" in International Conference on Exploring Innovations in Agricultural, Biological, Chemical, Environmental, and Forensic Sciences (MAESASS-2023). 25 26 May, 2024 at Paliwal College, Shikohabad (India).
- Dr. Lalit Mohan delivered an Invited Talk on "Botanical Pesticides and Nanotechnological Revolution" in International Conference on Global Approaches in Agricultural, Biological, Environment, and Life Sciences for Sustainable Future (GABELS-2023), 8–10 June, 2024 at D.A.V. College, Kathmandu (Nepal).
- Nikita Sharma and Shruti Sharma acted as Co-ordinator of cultural and quiz in Short-term Workshop on Impact of Climate Change on Biological Systems Organized by Association of Indian Universities-Dayalbagh Educational Institute-Academic & Administrative Development Centre and the Department of Zoology, DEI 15- 20 April, 2024.

## **Students Achievements/ Awards**

- Radha Yadav received Young Scientist Award in the International Conference on Multidisciplinary Research & Practices (ICMRP2023) organized by Dr. Bhimrao Ambedkar University, Agra from 16 - 18 December, 2023.
- Basudha Rani received Best Oral Presentation Award on 'Molecular docking study on phyto-constituents of clove essential oil against mosquito juvenile hormone binding protein and potential effects on *Aedes aegypti* metamorphosis' in the International Conference on Multidisciplinary Research & Practices (ICMRP2023) organized by Dr. Bhimrao Ambedkar University, Agra from 16 18 December, 2023.
- Ms. Madhuri, Research Scholar, Zoology Department, Faculty of Science, DEI, was awarded the 'Best Oral Presentation Award' for her paper entitled, "Efficacy of Gingiber Officinale Nanoemulsion Against Human Ectoparasite" at The 2<sup>nd</sup> International Conference on Environment, Agriculture, Human and Animal Health (ICEAHAH-2023) jointly organized in hybrid mode by Voice of Indian Concern for the Environment (VOICE: A non-profit organization), India, Department of Botany and Geology, Rajaram College, Kolhapur,

Maharashtra, All India Institute of Training and Education (AIITE), New Delhi and Somnogen Canada Inc.(A Canadian Pharmaceutical Corporation), Toronto, Canada, on July 20-21, 2023.

- Ms. Soni Tiwari received Excellence in Research Award, For Research Presentation on "STAT3 drives blood-brain-barrier dysfunction in Alzheimer's disease and diabetes comorbidity". December 17-18, 2023. International conference on 'Multidisciplinary Research & Practice'. Dr. Bhimrao Ambedkar University, Agra, India.
- Uzma Adil bagged 1<sup>st</sup> prize in extempore at the workshop on "Impact of Climate Change on Biological Systems (ICCBS-2024)".
- Mansi Mahajan bagged 3<sup>rd</sup> prize in extempore and 2<sup>nd</sup> prize in English Slogan Writing at the workshop on "Impact of Climate Change on Biological Systems (ICCBS-2024)".
- Mansi Mahajan was awarded Director's Medal for the Master's Degree (Academic session 2021-2023).
- Innovation in Science Pursuit for Inspired Research (INSPIRE) Fellowship by Department of Science and Technology (DST) was awarded to Mansi Mahajan.
- Krishna Rana, Research Scholar, Dept. of Zoology, awarded Best Oral Presentation entitled "Hesperidin Mediated Lifespan Extension in *Caenorhabditis elegans*" in the International Conference on Multidisciplinary Approaches in Engineering, Science, Agriculture & Social Studies organized by the Department of Biochemistry School of Lifesciences, Dr. Bhimrao Ambedkar University, Agra, India, held on 3 - 4 June, 2023.
- Vaishali Chowdhury and Shivani Gautam qualified NET 2023.
- Shivani Gautam and Mansi Mahajan qualified GATE 2024.

# Workshops/Conferences/Seminars/Webinars Organized

- 1. National Seminar to Commemorate the International Immunology Day in collaboration with Indian Immunological Society at DEI, Agra, on 6 May, 2023.
- 2. Workshop on "Impact of Climate Change on Biological Systems (ICCBS-2024), organized by Association of Indian Universities- Dayalbagh Educational Institute- Academic and Administrative Development Centre and the Department of Zoology, DEI, Agra from 15-20 April, 2024.
- 3. Organized an Online Refresher Course on Research Methodology in advancing knowledge for sustainable future, under the Malvitya Mission Teacher Training Programme of GOI in Collaboration with the MMTTC, NIEPA between 11 to 25 November, 2024.

Seminar/Symposia/Conference/Webinar/Faculty Development Programme Attended

• Swanti Gupta and Amla Chopra presented paper entitled "Utilizing Bioinformatics Approaches to Study Serotonergic Psychedelics and DMT:

Implications for Cognition in ICMRP (International Conference on Multidisciplinary Research And Statistics) from 16-18 December, 2023.

- Tiwari S, Atta A, Yadav E, Kaushik S, Mohammed Z, Ghosh S, Singh I, Chopra A. presented poster entitled "Gasdermin D is a key regulator of anxiogenic behavior in a rodent model of anxiety disorder" from January 18-19, 2024 in India International Science Festival, Faridabad, India.
- Nikita Sharma participated in two-week (online) Training Programme on "NEP Orientation and Sensitisation" organised by Mahatma Hansraj Malaviya Mission Centre (MH-MMC), Hansraj College under the aegis of Malaviya Mission Scheme, UGC from 1 – 14 January, 2024.
- Tiwari S, Yadav E, Kaushik S, Mohammed Z, Ghosh S, Singh I, Chopra. A. presented paper on STAT3 drives blood-brain-barrier dysfunction in Alzheimer's disease and diabetes comorbidity on December 17-18, 2023 in International conference on 'Multidisciplinary Research & Practice' at Dr. Bhimrao Ambedkar University, Agra, India.
- Swanti Gupta had shortlisted for recitation poem during the Vigyanika Science Literature Festival, IISF 2023 held from 17-20 January, 2024 and published in the 9<sup>th</sup> edition of Vigyanika theme book.
- Krishna Rana presented paper in International Conference on multidisciplinary approach in Engineering, Science, Agriculture and Social studies (MAESASS) 2023 on "Hesperidin mediated oxidative stress resistance in Caenorhabditis elegans" Organized by J.P.Khandari campus, Dr. Bhimrao Ambedkar University, Agra, Uttar Pradesh, India held from 3 -4 June, 2023.
- Deep Singh presented a paper titled "Impact of Environment on Tool Use in Animal Behaviour" at the International Multidisciplinary Conference on "Recent Innovations in Science, Engineering, Management and Humanities (RISEMH-2023) organized by J. S. University, Shikohabad, Firozabad UP-283135, INDIA on 16-17 December, 2023.
- Krishna Rana participated in the "Vigyanika" part of "India International Science Festival" organized by Government of India's "Ministry of Science and Technology; Ministry of Earth Sciences, Department of Spaces, Department of Atomic Energy and Government of Haryana in association with Vijnana Bharati (VIBHA) by Council of Scientific & Industrial Research (CSIR)" conducted from 18 – 19 January, 2024.
- Basudha Rani participated in DST-SERB accelerate Vigyan Karyashala: Familiarization with Hands on training on Advanced/Analytical Equipment organized by Chemistry Department, Dayalbagh Educatioal Institute, Agra from 19 April – 25 April, 2024.
- Basudha Rani participated in DST-SERB accelerate Karyashala: Hands on training on Sophisticated Instrumentation Techniques: Spectroscopy,

Chromatography & Advanced Microscopy organized by Central University of Punjab, Bathinda on 29 February – 07 March, 2024.

- Basudha Rani participated in One day Workshop on IPR-Indian Patent rights/copyrights organized by Dayalbagh Educational Institute, Agra on February 3, 2024.
- Basudha Rani participated in one month International Workshop on Drug Discovery & Development organized by Decode Life from 25 November- 20 December, 2023.
- Basudha Rani, Radha Yadav, Hemlata, Ankita Chauhan, Krishna Rana and Deep Singh participated in the Short-Term Workshop on "Impact of Climate Change on Biological Systems", organized by the Association of Indian Universities-Dayalbagh Educational Institute-Academic & Administrative Development Centre and the Department of Zoology, DEI, Agra from 15- 20 April, 2024.
- Basudha Rani participated in national webinar, organized by SciBug on *"Mycobacterium tuberculosis* Infection" on October 2, 2023.
- Basudha Rani participated in national webinar, organized by SciBug on "Role of micronutrients in immunity" on 20 September, 2023.
- Krishna Rana participated in the short course on "Mechanistic Theories of Consciousness 2023" organized by Dayalbagh Educational Institute Dayalbagh Agra, held from18 26 August, 2023.
- Krishna Rana successfully completed the 3 weeks course "Genomics for Educators" organized by Wellcome Connecting Science from Future Learn on October 4, 2023.
- Krishna Rana successfully completed the 3 weeks course "Bioinformatics for Biologists: Analysing And Interpreting Genomics Datasets" organized by Wellcome Connecting Science from future learn on 9 October, 2023.

## **Publications**

- 1. Yadav, R., & Prakash, A. (2023). Physico-chemical analysis of groundwater, RO water, RO wastewater, and conservation strategies. *International Research Journal of Engineering and Technology*, *10*(1), 33–37.
- 2. Sharma, N., Mahajan, M., & Prakash, A. (2024). PCR-based gene marker for quick detection and identification of *Cronobacter sakazakii*. *International Journal of Emerging Technologies and Innovative Research*, *11*(4), g166–g173.
- 3. Singh, R., Prakash, A., & Prakash, S. (2024). Web spinning and non-spinning spiders of semi-arid agroecological habitat of the Agra region and their role in pest control. *International Journal of Advancement in Life Sciences Research*, 7(3), 152–165.
- 4. Rana, K., & Gautam, P. (2023). Molecular docking and molecular dynamics simulation of bioflavonoids against superoxide dismutase and beta-amyloid

protein. International Journal of Research and Analytical Reviews, 10(2), 410–424.

- Kapoor, A., & Preet, S. (2023). Evaluation of acaricidal activity of *Cinnamomum camphora* (F. Lauraceae) essential oil nanoemulsion against cattle tick *Rhipicephalus microplus*. *Advances in Zoology and Botany*, 11(2), 121–128.
- 6. Agarwal, D., & Bhatnagar, R. (2023). Vocalization repertoire of the fivestriped palm squirrel, *Funambulus pennantii pennantii*: An ethological study. *Advances in Bioresearch*, 14(5/6).
- 7. Gupta, S., Sharma, S., Loach, N., Chaudhary, M., Sikarwar, A. P., & Mohan, L. (2023). Acaricidal bioefficacy and phytochemical analysis of *Citrus limetta* fruit peels against common cattle tick, *Rhipicephalus microplus* (*Acari: Ixodidae*). *Advances in Bioresearch*, *14*(4), 214–225.
- 8. Pathak, K. G., Sisodia, A., & Sikarwar, A. P. (2023). Salivary proteins biomarkers in neuro-psychiatric disorders: A systematic review. *Advances in Bioresearch*, *14*(4), 445–456.
- Pathak, K. G., Kajol, Sisodia, A., & Sikarwar, A. P. (2023). Threat of COVID-19 infection over the human brain: A neurological perspective. *Acta Scientific Neurology*, 6(7), 10–15.
- 10. Chaudhary, P., Sikarwar, A. P., Mohanty, K. K., & Patil, S. A. (2023). Antigens of *Mycobacterium tuberculosis* with reference to disease diagnosis and special emphasis on lipoarabinomannan. *Current Science*, *125*(5), 294–507.
- 11. Gupta, S., Sharma, S., Loach, N., Sikarwar, A. P., & Mohan, L. (2024). Pharmacological and insecticidal attributes of common fruit peels: A review. *Environment, Development and Sustainability.*
- Chaudhary, M., Sharma, S., Gupta, S., & Mohan, L. (2024). Phytogenic microemulsions: Boosting solubility, bioavailability, and safety of insecticidal formulations against insect pests and vectors – A comprehensive review. *Environmental Nanotechnology, Monitoring & Management, 22*, 100980.
- 13. Goswami, G., Bamola, S., Agarwal, M., Goyal, I., Chopra, A., Pandey, A., & Lakhani, A. (2024). Chemical composition, mutagenicity, and cytotoxicity of urban submicron particulate matter (PM<sub>1</sub>) in Agra, India. *Science of The Total Environment*, *954*, 176505.
- 14. Goswami, G., Bamola, S., Chopra, A., & Lakhani, A. (2024). Unlocking PM<sub>1</sub>bound cytotoxicity: Where do we stand and what's next? *Contemporary Advances in Science and Technology, 7.*
- 15. Gautam, P., Singh, N., Rana, K., & Lukose, J. (2024). Antioxidant capacity and drug-like activity of *Artocarpus heterophyllus* against D3, DJR-1, and SOD-1: A computational exploration. *International Journal of Engineering Research and Applications*, 14(6), 30–43.

- 16. Rana, K., Gautam, P., & Singh, N. (2023). Estimation of median lethal concentration (LC50) of pyrethroid and carbamate pesticides using nematode *Caenorhabditis elegans* to predict mammalian acute lethality (LD50). *Toxicology International*, *30*(3), 389–385.
- 17. Hemlata, & Bhatnagar, R. (2024). A review of behavior research on the genus *Acridotheres. Advances in Bioresearch*, *15*(1), 440–451.
- 18. Agarwal, D., & Bhatnagar, R. (2023). Vocalization repertoire of the fivestriped palm squirrel, *Funambulus pennantii pennantii*: An ethological study. *Advances in Bioresearch*, 14(5/6).
- 19. Chauhan, A., & Bhatnagar, R. (2023). Cognitive ethology of genus *Argya* in the Indian subcontinent: A comprehensive review. *Advances in Bioresearch*, *14*(5/6).

## **Book Chapters**

- Lalit Mohan and Arun Pratap Sikarwar "Present Scenario of Environmental Learning in Higher Education: Challenges and Opportunities". Higher Education in India, Rudra Publishers & distributors, 2024, 39-51. ISBN: 978-93-88361-89-0
- Lalit Mohan and Priyanka Gautam "Traditions of Sustainability: How Cultural Practices Safeguard the environment" Environment and human values Sustainable Co-existence, Rudra Publishers & distributors, 2024, 64-91, ISBN: 978-93-88361-67-5.
- 3. Lalit Mohan "Botanical Pesticides and Nanotechnological Revolution" Proceeding of 7th International Conference (Kathmandu Chapter 2.0) Global Approaches in Agricultural, Biological, Environment & Life Science for Sustainable Future. 80-89 (2024). ISBN: 978-81-970319-5-3.

#### **Books**

- Bina Rani, Lalit Mohan, Mahesh Chandra, Anil Kumar, Raaz K. Maheshwari. (2024). Astonishing attributes of Graphene and its derivatives. Discovery Publishing House Pvt. Ltd. (ISBN: 978-81-19205-73-8)
- Bina Rani, Anil Kumar, Lalit Mohan, Manish Kumar, Suresh Kumar Verma, Raaz K. Maheshwari. (2024). Nanotechnological Approach to remediate contaminated water. Discovery Publishing House Pvt. Ltd.

## Placements (2023-24)

- 1. Mr. Deep Singh was appointed as Assistant Professor in the Department of Zoology, J.S. University, Shikohabad, Firozabad, Uttar Pradesh w.e.f. May, 2023
- 2. Dr. Deepali Agarwal was appointed as Head and Assistant Professor in the Department of Zoology, Agravan University, Agra w.e.f. August, 2023.

# Faculty of Social Science

The Faculty of Social Sciences came into existence in the year 1994 when three Departments, viz., Economics, Psychology; Sociology & Political Science were delinked from the Faculty of Arts. In 2005, the Department of ACEEFO was brought under the umbrella of the Faculty of Social Sciences. Department of Management got the independent entity in 2006. Presently, the Faculty has the following four Departments:

- 1. Economics
- 2. Management
- 3. Psychology
- 4. Sociology & Political Science

All the Departments of the Faculty offer Undergraduate, Postgraduate and PhD programmes.

# **Department of Economics**

The department envisions achieving excellence in teaching and significant research to provide quality education to students, and prepare professional leaders to address the emerging global challenges and to deal with economic, social and business realities. Department of Economics is one of the oldest departments of the University which began its journey in 1947 as a part of the erstwhile Women's Training College. Currently the Department offers: B.A. Social Science (Hons.), Post Graduate Diploma in Business Economics (PGDBE), M.A. (Applied Economics), M.Phil. (Economics), Integrated PGDBE - M.A. (Applied Economics), M. Phil integrated with Ph.D. It offers B.A. Honours Economics (3 years course), M.A. (2-year course), Post-Graduation Diploma in Business Economics and Ph.D.

## Faculty/Staff Awards/ Recognition

- Jyoti Gogia, Chaired, Technical Session, 5th Multidisciplinary National Conference on Pre and Post-Doctoral Research in India, September 18, 2023.
- Sangeeta Kumar received Best Nation Building Award , Avishkar Achievers Award 2023, Avishkar Foundation, Solapur, 17.8.2023.
- Sangeeta Kumar received Best Academician of the Year 2023, Rashtriya Shiksha Gaurav Puraskar Ceremony 2023, Centre for Education Growth and Research, 27 September 2023, New Delhi.
- Sangeeta Kumar successfully completed the 7 days faculty development programme on "Research methodology, bibliometric analysis and data analysis using R" Organised By Society of Education, India , University of Agricultural Sciences, Raichur, Karnataka European Laser Academy,

Germany, Genome Biotech, Mathura In Association With / Spearheaded By Office of the Principal Scientific Advisor to the Government of India Under Waste To Wealth Mission, 22 - 28 July, 2023.

- Sangeeta Kumar successfully completed the 5 days professional development programme on "Research Writing" Organised By MSME-TECHNOLOGY DEVELOPMENT CENTRE (PPDC), Ministry of Micro, Small and Medium Enterprises, Government of India Society, Agra, from 11.08.2023 to 15.08.2023.
- Anand, N. attended five days online faculty development program on "Inculcating universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) from 2 -6 October, 2023.
- Prof. Rupali Satsangi delivered an invited talk on the topic "Building Climate Resilience at Higher Education Institutions" in Ten-day Faculty Development Program on Bridging Climate Change and Environmental Security: Pathways to Resilience from September 19 - 29 September, 2023.
- Prof. Rupali Satsangi was invited as the Keynote Speaker in the inaugural session of an International Conference on Transforming Business Practices in the Changing Global Economy: Strategies for Business Resilience, she delivered a presentation on "Transforming Business Towards Sustainability", organised by the School of Management and Commerce, ITM University Gwalior, Madhya Pradesh, India from 13-14 October, 2023.
- Prof. Rupali Satsangi was invited as a resource person in the Refresher Course of Economics from 04.12.2023 to 16.12.2023 organised by Rajasthan University. She delivered a talk on the "Sustainability in different Colours of the Economy".
- Prof. Rupali Satsangi delivered a talk on "Drafting and Publishing Research Papers and Preparation of Research Proposals" as a resource person in the short-term Capacity Building Programme on Research Methodology from March 11-16, 2024 organized under the auspice of AIU-DEI-AADC with the Department of Applied Business Economics, Faculty of Commerce, DEI
- Prof. Rupali Satsangi invited Speaker to the National conference on Bhatiya Sant Mat: Darshan Avam Samajik Upyogita delivered a talk on "Santmat manifestation at Dayalbagh" on 12-13, April, 2024.
- Prof. Rupali Satsangi delivered a talk as an invited speaker on "Multivariate and Factor Analysis" at the 10 Days Faculty Development Programme on Statics in Education and Social Sciences Research on May 22-3, 2024 organized by the Faculty of Education, DEI under the aegis of AIU-DEI-AADC.

### **Students Awards and Recognition**

• Chopra, D. presented a research paper in the 5<sup>th</sup> International Conference on "Entrepreneurship and Business Sustainability" on the topic entitled "An E Service Quality Assessment of India Raileays to assess B to C relationship: A study of Northeast India" organized by Youth Empowerment & Research Association in academic partnership with Commerce and Management Association of India and Norbuling Rigter College (NRC), Bhutan, on 3-5 May, 2024.

- Kumar, P. participated in the short term capacity building programme on Research Methodology from 11– 16 March, 2024, organized under the auspices of AIU-DEI-AADC in association with Department of Applied Business Economics, Faculty of Commerce, DEI.
- Kumar, P. participated in the 10 days Faculty development programme on Statistics in Education and Social sciences Research from May 22-31, 2024 organised by Faculty of Education, DEI under the aegis of AIU-DEI-AADC.
- Dolly Jamwal attended International Conference on Sustainable Business Management (SBM 2023) jointly organised by DoMS IIT Roorkee and Arizona State University, USA 23/03/2023 to 25/03/2023 and presented a paper titled: An analytical study of socio-economic and psychological well-being of social echelons for sustainable policy making
- Dolly Jamwal attended online Pre-Conference Workshop at 2nd International Research Conference on Mindfulness (IRCM) 2024 on the theme "Mindfulness for Sustainable Business and Innovation" organised by the Indian Institute of Management Bodh Gaya from 08 10 February, 2024.
- Dolly Jamwal presented a paper titled "The Education of Practical Consciousness for Sustainable Development Behaviours: A Structural Equation Modelling Approach and Total Consciousness Equation Derivation" at the 2nd International Research Conference on Mindfulness (IRCM) 2024 on the theme "Mindfulness for Sustainable Business and Innovation" organised by the Indian Institute of Management Bodh Gaya from 8 10 February, 2024.
- Dolly Jamwal attended the International Workshop on INNOVATIVE PRACTICES IN RESEARCH From 17 21 April, 2023 organized by School of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, MoE, Govt. of India.
- Dolly Jamwal attended XXV Annual International Conference on World Peace: An Essential Ingredient for Survival of Humanity and The Planet, Sponsored by ICSSR, on 6-7 January, 2024 and presented a paper titled: Harnessing Pro-Positive Mass Behaviour Change Advertising (Nudges) for Sustainable Behavioural Practices Adoption within the Framework of Sustainable Development Goals 2030".
- Satwik Gupta, participated in the Workshop on "Training on Computable General Equilibrium Modeling and its Applications" held at Nafed House from 01 to 5 April, 2024 organized by Centre for WTO Studies, Centre for Research in International Trade.

- Satwik Gupta, resented a research paper in International Conference on "India's Role as a Global Business Superpower: Unleashing the Power of the Indian Business Model ICIBM 2024" held on 13 March, 2024 organized by Atma Ram Sanatan Dharma College, University of Delhi, New Delhi
- Satwik Gupta, participated in the Workshop on "Time Series and Panel Data Analysis" conducted during February 28 March 3, 2024 organised by Indian Institute of Foreign Trade (Deemed to be University under Department of Commerce, Govt. of India).
- Satwik Gupta, participated in the Workshop on "Short-Term Capacity Building Programme on Statistical Analysis: Theory and Practice (Applications of SPSS and R Software in Research)" from November 28, 2023 to December 05, 2023 organized under the auspices of AIU-DEI-AADCA at Dayalbagh Educational Institute (Deemed University), Agra.
- Satwik Gupta, participated in the Workshop on "Basic and Advanced Excel" conducted from September 10 to November 5, 2023 organised by ICT Continuing Education Centre Dayalbagh Educational Institute (Deemed University), Agra.
- Satwik Gupta, published a paper entitled "An Exploratory Analysis of Bilateral Trade and Revealed Comparative Advantage of India with Australia" published in FOCUS: Journal of International Business, Volume 11, Issue 1, Jan-Jun 2024, pp. 44-65. DOI: 10.17492/jpi.focus.v11i1.1112403. (Indexed in EBSCO, ICI)

### Seminar/Symposia/Conference/Webinar Organized

A special awareness program was organized by the Department of Economics on Financial Literacy, on April 2, 2024. The special invited guest for the lecture was Mr. Mandeep Soni from Bandhan AMC Ltd.

#### Patents Granted

A patent on Psycho-Adaptive Neural Network for Scalable Integration of Visual Working Memory with Natural Image Processing was Published under: The Patents Act, 1970 (39 Of 1970) & The Patents Rules, 2003 and granted to Preeti Manani, Shraddha Sharma, Rupali Satsangi and Ritu Sharma. The present invention is related to the working memory in Psychology and Natural image processing area. Applicant:

#### **Publications**

- 1. Sikarwar, N., & Gogia, J. (2024). Household food consumption patterns and food security in Uttar Pradesh, India. *Arth Vijnana, Journal of the Gokhale Institute of Politics & Economics, 66*(1), 60–81.
- 2. Sikarwar, N., & Gogia, J. (2023). Linkages between food systems and food security. *Research Journal of Humanities and Social Sciences*, 14(4), 179–186.
- 3. Gogia, J., & Sikarwar, N. (2023). The status of household food and nutritional insecurity in Uttar Pradesh, India. *International Journal of Science and Research*, *12*(7), 459–564.

- 4. Agarwal, R., & Gogia, J. (2024). Digital inequality in India: Problems and prospects for digital inclusion. In A. Anand, A. Tripathi, K. Sharma, A. Chauhan, & R. Agarwal (Eds.), *Sustainability entrepreneurship, equity and digital strategies* (pp. 245–250). Bloomsbury Publishing India Pvt. Ltd.
- Kukreja, A., & Gogia, J. (2024). Urban housing paradox: Is sharing a sustainable solution? In A. Anand, A. Tripathi, K. Sharma, A. Chauhan, & R. Agarwal (Eds.), *Sustainability entrepreneurship, equity and digital strategies* (pp. 311–316). Bloomsbury Publishing India Pvt. Ltd. ISBN: 978-93-56409-90-3.
- 6. Sharma, J., Kumari, P., & Chopra, R. (2024). Construction and standardization of composite sustainability scale for GHRM practices with reference to red category industry. *Journal of Informatics Education and Research*, *4*(1).
- 7. Anand, N., & Gupta, S. (2024). An exploratory analysis of bilateral trade and revealed comparative advantage of India with Australia. *FOCUS: Journal of International Business*, *11*(1), 44–65.
- 8. Anand, N. (2023). Informal services in Asian cities: Lessons for urban planning and management from the COVID-19 pandemic. *Journal of Asian Economic Integration*, 5(2), 167–169.
- 9. Kumar, S. (2024). Technological awareness and woman empowerment: An analytical study. *International Journal of Science and Social Science Research*, *1*(4), 124–131.
- 10. Kumar, S. (2024). A study on the investment behavior of working women with special reference to Agra district. *International Journal of Humanities and Social Science Invention*, 13(1), 33–42.
- 11. Singh, S. P., & Kumar, S. (2023). An analytical study on digital transformation: Its positive and negative impact on education sector. *International Journal of Advanced Research*, *11*(July).
- 12. Kumar, S., & Chopra, D. (2023). A study on LIC schemes with reference to children and women. *International Journal of Scientific Research in Engineering and Management*, 7(7).
- 13. Sauni, P., & Kumar, S. (2023). Role of corporate social responsibility in attaining educational goals of India. In *Sustainable economic and management practices: Challenges and future prospects, 2,* 68–77.
- 14. Satsangi, R., Jamwal, D., Sharma, S., & Manani, P. (2024). Socio-economic and psychological well-being: An analytical study for sustainable policy-making. *International Journal of Sustainable Development and Planning, 19*(1), 179–185.
- 15. Satsangi, R., & Anand, N. (2023). Microfinance-led strategic action plan for human capital formation to achieve sustainable development goals. *Journal of Economics, Finance and Management Studies,* 6(12), 6041–6051.

- 16. Satsangi, R., & Gupta, J. (2024). An impact assessment of university teachers' knowledge and attitude toward awareness of sustainable development goals (SDGs): A partial least squares structural equation modeling approach (PLS-SEM). *International Journal of All Research Education and Scientific Methods*, 12(3).
- 17. Satsangi, R., & Malhotra, S. (2024). Sustainable women entrepreneurship through microfinance: A system dynamic approach. *Research Journal of Humanities and Social Sciences*, *15*(2).

#### **Books**

- Anand, N. G20, Sustainability in Management and Economics-Future Agendas and Prospects; Nex Gen publication, 2024.
- Anand, N. Sustainable Economic and Management Practices Volume 1, Empyreal Publishing House, India, 2023.
- Anand, N. Sustainable Economic and Management Practices Volume 2, Empyreal Publishing House, India, 2023.

### **Book chapters**

- Khatri, Muskan.; Chopra, Resham. Exploring Innovative Applications of Drone in Pre - Determined Service Sector; book entitled Artificial Intelligence in HRM, 1<sup>st</sup> ed.; Weser books, 2024. ISBN: 978-3-96492-474-2; pp 131-138.
- Anand, N. Chopra, D. Green Building Infrastructure Towards Eco Friendly Sustainable Livable Cities: A Theoretical Relationship; book entitled Sustainable Economic and Management Practices, Empyreal Publishing House, Vol. 1, 2004. ISBN: 978-93-93810-98-4, pp. 46-56.
- Sauni. P & K. Sangeeta published a paper on "Role of Corporate Social Responsibility Attaining Educational Goal of India" in the book 'Sustainable economic and management practices: challenges and future prospects' August 2023, Vol.2,pp 68-77, ISBN: 978-93-93810-99-1

### e-book chapter

- Khatri, Muskan.; Chopra, Resham. Exploring Innovative Applications of Drone in Pre - Determined Service Sector; book entitled Artificial Intelligence in HRM, 1<sup>st</sup> ed.; Weser books, 2024. ISBN: 978-3-96492-474-2; pp 131-138.
- Anand, N. Chopra, D. Green Building Infrastructure Towards Eco Friendly Sustainable Livable Cities: A Theoretical Relationship; book entitled Sustainable Economic and Management Practices, Empyreal Publishing House, Vol. 1, 2004. ISBN: 978-93-93810-98-4, pp. 46-56.
- Sauni. P & K. Sangeeta published a paper on "Role of Corporate Social Responsibility Attaining Educational Goal of India" in the book 'Sustainable economic and management practices: challenges and future prospects' August 2023, Vol.2, pp 68-77, ISBN: 978-93-93810-99-1

# **Participation in Conferences/ Seminars Workshops**

- Prof. Rupali Satsangi Presented a paper "Breaking Barriers: Unveiling the Gender Digital Gap and Crafting Solutions for Equal Access", at the World Women's Studies conference held on 7-9 March 2024, Organised by Delhi University, New Delhi.
- Anand, N. presented a research paper in the International G20 conference on "Resilient Approaches for New World Order & Viksit Bharat" organized by Shaheed Bhagat Singh College at Dr. Ambedkar International Centre, New Delhi, India, on 25 September 2023. He also presented a research paper in the 5<sup>th</sup> International Conference on "Entrepreneurship and Business Sustainability" on the topic entitled "An E Service Quality Assessment of India Railways to assess B to C relationship: A study of Northeast India" organized by Youth Empowerment & Research Association in academic partnership with Commerce and Management Association of India and Norbuling Rigter College (NRC), Bhutan, on 3 to 5 May 2024. He also presented a research paper in the 4<sup>th</sup> Annal National Conference of Indian Economics & allied Sciences Association (IEASA), India 2.0: Vision for India 2047 on the topic entitled Microfinance Led strategic Action Plan for Human Capital Formation to Achieve Sustainable Development Goals held on 27-29 October 2023, organized by University of Kashmir, Srinagar, Jammu & Kashmir sponsored by Indian Council of Social Science Research in collaboration with Global Economist forum (India Chapter) & Guirat Economic Association. He also presented a research paper in the International Conference on India's Role as a Global Business Superpower-Unleashing the power of the Indian Business Model ICIBM 2024 on the topic entitled "Bilateral Trade and Revealed Comparative Advantage Analysis of India and Australia" held on 13 March, 2024 organized by Atma Ram Sanatan Dharma College, University of Delhi, New Delhi
- Khatri, Muskan.; Chopra, Resham. Exploring Innovative Applications of Drone in Pre - Determined Service Sector; book entitled Artificial Intelligence in HRM, 1<sup>st</sup> ed.; Weser books, 2024. ISBN: 978-3-96492-474-2; pp 131-138.
- Anand, N. Chopra, D. Green Building Infrastructure Towards Eco Friendly Sustainable Livable Cities: A Theoretical Relationship; book entitled Sustainable Economic and Management Practices, Empyreal Publishing House, Vol. 1, 2004. ISBN: 978-93-93810-98-4, pp. 46-56.
- Sauni. P & K. Sangeeta "Role of Corporate Social Responsibility Attaining Educational Goal of India" in the book 'Sustainable economic and management practices: challenges and future prospects' August 2023, Vol.2,pp 68-77, ISBN: 978-93-93810-99-1
- Vani Pursnani & Sangeeta Kumar published a paper on "A study on consumer's perception towards electric vehicles with special reference to Agra district" in Poster Presentations Extended Abstracts E Book, Green Transport Technology Published by CSIR-Central Road Research Institute,

India International Science Festival (IISF), 2023 New Delhi, pp. 30-103, December 13, 2023.

#### **Placements**

- Garima Garg got placed as a Research Associate, market Xcel Data Matrix Pvt. Ltd. New Delhi with the package of 350,005 annually in 2024.
- Nimisha Sethia got placed as a Junior research analyst, WSP Consultants India Private Limited, Noida with Grade 9B in 2024.
- Disha Chopra got placed as an PGT Economics Teacher, Sharda World School, Agra with 45,000 per month.

# **Department of Management**

The department was established in 1991 offering a PG course in Business Management in response to the country's needs for trained managerial manpower. In 2006, the department of Management was established as an independent department. The department offers undergraduate (BBM), post graduate (MBA in Business Management), Post Graduate Diploma in Urban Planning and Management, and Ph.D. The department offers several Work Experience Courses like Introduction to Computers & Operating Systems, Office Management Software, Computer Programming, Database Management Systems, The Internet & E-commerce, Management Information System, Industry Analysis Project and Work Term Project. The department has firm collaborations with IIM Bangalore, IIT Kanpur, Indian Railways, Tata Consultancy Services, IIM Calcutta, IIT Delhi, The Energy and Resources Institute, School of Planning & Architecture, IIM Udaipur, Malaysia Institute for Supply Chain Innovation and has MoU with Supply Chain Management Centre, IIM Bangalore (2009 onwards) and School of Planning and Architecture (2017). The department also runs Business Advisory Clinics.

### **Projects Sanctioned During the year**

Sanction of Research Project entitled of 'ICTs in the Creation and Consolidation of Innovative Ventures in India: An Analysis from a Gender Perspective" to Prof. Sumita Srivastava and Dr. Jaspreet Kaur under ICSSR Research Projects (Major), 2023-24.for grant in aid of Rs, 12,00,000 with effect from January 15, 2024.

# Copyright Granted: Copyright: L-152529/2024

• Factor Structure and Validation of the Better Worldliness Scale from the perspective of the <u>Ra Dha Sva Aa Mi</u> Faith – Dr. Purnima Bhatnagar (along with co-authors)

# **Copyrights Applied**

- Consumers' Emotional Connect with Coloured Clothes Purchase Scale Dr Purnima Bhatnagar and Shivani Sharma
- Report on the outcome of the educational csr initiatives in the middle schools of mewat district in haryana, india Dr. Purnima Bhatnagar

# Faculty/Staff Achievements/ Awards

- Prof. S. Swami was nominated to the Expert Panel of ICASSSD (International Centre for Applied System Science for Sustainable Development) Summer School in Toronto, Ontario, Canada. He is an esteemed member of the Editorial Board of the Emerging Economies Cases Journal (a Sage Publication and IIM Rohtak Journal) and the Journal of Advances Research (JAMR), jointly published by Emerald and IIT Delhi. Additionally, He has been appointed as a reviewer for numerous prestigious journals, including but not limited to the NSC2024, European Journal of Operational Research, International Journal of Business Research, International Journal of Cleaner Production, International Journal of Production Economics, International Journal of Applied Mathematics and Computation, International Journal of Advances in Management Research, International Journal of Operational Research Society, International Journal of Retailing & Consumer Services, International Journal of Technological Forecasting & Social Change, International Journal of Heliyon, International Journal of Waste Management, International Journal of Sustainable Operations & Computers, International Journal of Open Innovation: Technology, Markets and Complexity, International Journal of Agribusiness, International Journal of Business Perspectives and Research, International Journal of Operations Research Perspectives, International Journal of Renewable and Sustainable Energy Reviews, and International Journal of Electronic Commerce Research and Applications.
- Prof. Akshay Satsangi is the regional coordinator of Unnat Bhaart Abhiyan (A Flagship program of the Ministry of Education)
- Prof. Sanjay Bhushan was elected Vice-President of the Association for Transport Development in India (ATDI) for the term 2024–26 and as a Member of the Executive Committee of the Systems Society of India (SSI) for 2023–26. Prof. Bhushan introduced a ground breaking theoretical framework incorporating *Constructive Resonance* and the *Resonance-Induced Information Force Field (RIIFF©)*, which has been copyrighted under a Creative Commons Attribution 4.0 International License since 2023, underscoring his commitment to advancing knowledge and fostering open innovation.
- Prof. Sumita Srivastava was invited as a Guest Speaker at the Department of Business Administration, MJP Rohilkhand University, Bareilly. In August 2024, she served as a Session Chair at the *International Conference on Embracing Artificial Intelligence for Sustainability & Life Skills*, organized by Norbuling Rigter College, the Royal University of Bhutan. Additionally, she was appointed as a Working Committee Member of the All Women Entrepreneurs (AWE), Agra Chapter, and was honored by the Member of Parliament, Mathura, for her active contributions to the organization.
- Prof. Sunita Malhotra delivered the keynote address at the 4<sup>th</sup> International Conference held at ITM University, Gwalior, on October 14, 2023, on the topic *"Transforming Business Practices in Changing Global Economy."* She was honoured with the *Best Paper Award* at the 6<sup>th</sup> International Seminar on

*Industry 4.0: Emerging Challenges, Opportunities, and the Way Ahead,* organized by the Institute of Technology and Management, Gwalior, on May 13–14, 2023 for a paper, titled *"The Role of Smart Technologies in Managing Supply Chain Post Pandemic: An Exploratory SPAR-4-SLR".* 

- Ms. Pooja Kewalramani, Dr. Jaspreet Kaur, and Prof. Sumita Srivastava received the Best Paper Award for their paper titled "AI Startup Dynamics in India: A Comprehensive Study" at the Doctoral Colloquium-2024 on Artificial Intelligence and Sustainability, organized by XLRI Jamshedpur from April 8– 10, 2024.
- Ms. Jagrati Asija, Prof. Sumita Srivastava, and Ms. Pooja Kewalramani secured the Second Best Paper Award for their paper titled "Preliminary Investigation on Spirituality at Work: Bridging Ethical Leadership, Employee Consciousness, and Workplace Behaviour" at the II International Research Conference on Mindfulness-2024, organized by IIM Bodhgaya from February 8–10, 2024.
- Dr. Purnima Bhatnagar was invited as a speaker during the Faculty Development Programme on "CSR and Sustainability for a Better World" at the AIU-DEI-AADC Capacity Building Workshop. Her talk on "Organizational Behavior and Life Skills Leading to Better Worldliness" was delivered at Dayalbagh Educational Institute, Agra, from February 26 to March 2, 2024. She has reviewed papers for The International Journal of Information and Learning Technology, South Asian Journal of Business Studies, Sustainable Development and Social Responsibility Journal

# Workshops/Conferences/Seminars/Webinars Organized

- TechVenture 2024: A Students' Startup Idea Competition was hosted, which provided a platform for students to showcase their innovative ideas and entrepreneurial aspirations.
- A two-day workshop titled The Role of Digitalization in MSME Creation and Growth was successfully organized focusing on leveraging digital tools for the growth and sustainability of Micro, Small, and Medium Enterprises (MSMEs).
- Dr. Purnima Bhatnagar curated a webinar for MBA students in collaboration with the Alumni Association of Friends of DEI (AAFDEI), Europe on Innovations in the Dayalbagh Dairy by Mr. Mrityunjay Mathur (2023).

# Workshop/Conference/Seminar/Webinars/Faculty Development Programme Attended

- Ruchika Vatsa, Purnima Bhatnagar and Pami Dua participated in the 47<sup>th</sup> National Systems Conference 2024 and presented the paper titled, "Exploring Factors Affecting Learning Agility for Sustainable Business Continuity: A Modified Nominal Group Technique".
- Sandeep Tyagi, Purnima Bhatnagar and Huzur Saran attended the 47<sup>th</sup> National Systems Conference 2024 and presented the paper titled, "Ethical

Implications and Challenges in the Deployment of Autonous Vehicles: A Comprehensive review of Roboethics"

- Aarti Yadav, Purnima Bhatnagar presented the paper titled, "Mapping CSR Expenditure and Healthcare Practices: A Study of Top-20 Companies in India" at the 47<sup>th</sup> National Systems Conference 2024.
- Priya Jayant Khobragade, Shalini Nigam, Purnima Bhatnagar presented the paper titled, "Agricultural Systems: Comparative analysis of Status and technological Innovations in Sugarcane Industry in Maharashtra and Uttar Pradesh" at the 47<sup>th</sup> National Systems Conference 2024.
- Jyoti Mishra and Purnima Bhatnagar presented the paper titled, "Challenges associated with the National Skill Development Mission in India" at the 47<sup>th</sup> National Systems Conference 2024.
- Priya Jayant Khobragade, Shalini Nigam and Purnima Bhatnagar presented the paper titled, "Credit Availability and Constraints to the Sugarcane Farmers" at ICSSH24, Organized by Society of Education.
- Aarti Yadav, A., and Purnima Bhatnagar presented the paper titled, "A comprehensive Review of CSR in Healthcare: Evaluating Initiatives and Impacts across Borders" at Beyond Borders: Exploring Global Perspective in Management (ICEGPM-2024), Organized by Indira Group of Institutes, Pune; Indira School of Business Studies PGDM.
- Dr. Purnima Bhatnagar completed the Two Weeks Online Refresher Course on Research Methodology organized by Human Resource Development Centre, University of Hyderabad from 9 - 21 October 2023 and obtained Grade A.
- Dr. Purnima Bhatnagar completed the Two Weeks Online Refresher Course in Commerce, Accountancy and Management, organized by Malviya Mission Teacher Training Centre, University of Mumbai, from September 16 to September 28, 2024 and obtained Grade A.
- Dr. Purnima Bhatnagar participated in an online workshop on Practical Understanding on Case Study Writing and Teaching through Case from 6<sup>th</sup> October 2023 to 10<sup>th</sup> Nov 2023, organized by N.L. Dalmia Institute of Management Studies and Research, Mumbai.
- Awantika Tomar presented paper entitled, "Artificial Intelligence in Green Consumerism: Enhancing Solar Adoption through Post-Purchase Dissonance Reduction," Presented at the International Conference on Embracing Artificial Intelligence for Sustainability & Life Skills, organized by Norbuling Rigter College, the Royal University of Bhutan, August 2024.
- Awantika Tomar presented paper entitled, "Impact of Product Knowledge on Pro-Environmental Behaviour of Rooftop Solar Consumers: The Mediating Role of Post-Purchase Dissonance," Presented at the 47th International Systems Conference (NSC) on Systems for Sustainable Development in

Quintessential Harmony with Environment, Dayalbagh Educational Institute, 2024.

- Shabd Pyari presented paper entitled, "A Preliminary Investigation of the Influence of Model Workplace Drivers on Retention Factors Through the Mediation of Employee Experience," Presented at the International HR Conference cum Conclave, organized by IIM Jammu.
- Shweta Prasad presented paper entitled, "The Role of Humility in Consciousness: An Analysis of the Levels and Causes of Humility in MBA Students of DEI," Presented at DSC 2023, Dayalbagh Educational Institute (DEI).
- Garima Srivastava presented paper entitled, "Empowering Sustainable Development: How MSMEs are Leading the Charge Toward the 2030 SDGs through Technology-Driven Innovation and Entrepreneurship."
- Pooja Kewalramani presented paper entitled, "AI Startup Dynamics in India: A Comprehensive Study," Presented at the Doctoral Colloquium-2024 on Artificial Intelligence and Sustainability, XLRI Jamshedpur, April 8-10, 2024.
- Pooja Kewalramani presented paper entitled "Preliminary Investigations on Spirituality at Work: Bridging Ethical Leadership, Employee Consciousness, and Workplace Behavior," Presented at the II International Research Conference on Mindfulness-2024, organized by IIM Bodhgaya, February 8-10, 2024.
- Pooja Kewalramani presented paper entitled "Developing Feedback Loops for Adopting Digital Technologies in Small and Medium Enterprises: Using I-TOE-S Framework," Presented at the 47th International Systems Conference (NSC) on Systems for Sustainable Development in Quintessential Harmony with Environment, Dayalbagh Educational Institute, 2024.
- Vrinda Tikkha presented paper entitled, " Study on the Greenwashing Practices in Food and Beverage Industry," Presented at the 5th Multidisciplinary National Conference on Pre and Postdoctoral Research in India, organized by Dayalbagh Educational Institute, September 18, 2023.
- Vrinda Tikkha presented paper entitled "Bridging the Backlog of Indian Courts with the Lens of NEP 2020," Presented at the National Seminar on New Education Policy 2020, organized by Dayalbagh Educational Institute, January 6, 2024.
- Pranu Sharma presented paper entitled, "Revisiting Career Aspirations of Panmillennials: A Study to Explore Their Retention Strategies," Presented at the International HR Conference cum Conclave, organized by IIM Jammu.
- Prachi Agarwal presented paper entitled, " Study on the Greenwashing Practices in Food and Beverage Industry," Presented at the 5th Multidisciplinary National Conference on Pre and Postdoctoral Research in India, organized by Dayalbagh Educational Institute, September 18, 2023.

- Prachi Agarwal presented paper entitled "Bridging the Backlog of Indian Courts with the Lens of NEP 2020," Presented at the National Seminar on New Education Policy 2020, organized by Dayalbagh Educational Institute, January 6, 2024.
- Jyoti Sharma presented paper entitled, "Impact of Green HRM Practices for Enhancing Workplace Sustainability in the Service Sector: Insights from the Hospitality Sector," 2024.
- Jyoti Sharma presented paper entitled "A Study of Sustainability Policies in the Automobile Industry," 2023.

# **Publications**

- 1. Agarwal, R., Bhadauria, A., Swami, S., & Rajwnashi, R. (2023). Factors influence or inhibit the purchase intention towards rooftop solar: Using structural equation modeling and importance performance map analysis approach. Journal of Cleaner Production, 410, 137109.
- 2. Agarwal, R., Bhadauria, A., Kaushik, H., Swami, S., & Rajwanshi, R. (2023). ISM-MICMAC-based study on key enablers in the adoption of solar renewable energy products in India. Technology in Society, 75, 102375.
- 3. Mathur, M., & Swami, S. (2023). Can social marketing be the key to social change in India? Journal of Advances in Management Research, 20(2), 310-328.
- 4. Srivastava, M., Mehta, P., & Swami, S. (2023). Retail inventory policy under demand uncertainty and inventory-level-dependent demand. Journal of Advances in Management Research, 20(2), 217-233.
- 5. Ramani V, Rani Kuiti M, Ghosh D, Swami S. Effectiveness of environmental regulations: firm's decisions and welfare implications. Journal of the Operational Research Society. 2024 Feb 27:1-21.
- 6. Agarwal, P., Malhotra, S. K., & Swami, S. (2024). The role of smart technologies in managing supply chain post pandemic: an exploratory scientific procedures and rationales for systematic literature review. Journal of Science and Technology Policy Management.
- 7. Kumari, B., Kaur, J., & Swami, S. (2024). Adoption of artificial intelligence in financial services: a policy framework. Journal of Science and Technology Policy Management, 15(2), 396-417.
- 8. Agarwal, P., Swami, S., & Malhotra, S. K. (2024). Artificial intelligence adoption in the post COVID-19 new-normal and role of smart technologies in transforming business: a review. Journal of Science and Technology Policy Management, 15(3), 506-529.
- 9. Hingorani, P. P., & Swami, S. (2024). Inter-departmental dyadic coordination in organizations with reference to human resource and operations management. Journal of Advances in Management Research.

- Bhushan, S. (2024). Energy Transformation and the Emergence of Space-Time: A Classical-Quantum Unified Framework. Physics International, 15(1), 1-6. https://doi.org/10.3844/pisp.2024.1.6 (Impact Factor 4.36)
- Bhushan S. Quantum System Dynamics: Harnessing Constructive Resonance for Technological Advancements, Universal Matter Creation and Exploring the Paradigm of Resonance-induced Gravity. Int J Phys Res Appl. 2024; 7: 053-058. DOI: 10.29328/journal.ijpra.1001084
- Bhushan S. Matter-Management: Coordinated Resonance-Driven Universal Matter Synthesis with Quantum-Classical Ramifications. Res Rev J Pure Appl Phys. 2023;11:006. 31-Oct-2023,DOI:10.4172/2320-2459.11.4.006.
- Bhushan, S. (2023). Universal Matter Synthesis and Management via Constructive Resonance: Pioneering Advancements in Physical Sciences and Applied Systems. International Journal of Fundamental Physical Sciences, 13(3), 30-40. https://doi.org/10.14331/ijfps.2023.330160 (Impact Factor 3.47)
- Bhushan, S. A study on factors affecting academic stress amongst students of higher education – a system dynamic approach', Int. J. Business Excellence, Vol. 29, No. 4, pp.504–517, 2023 (
- 15. Bhushan, S.360-Degree Holistic Systems Modelling for 'Innovative, Integrated and Sustainable' Mobility Scenario Analysis and Policy Formulation, International Seminar on Systems Approach to Mobility: Need for Safety & Security, April, 08, 2023, DEI.
- 16. Kulshreshtha, P., Swarup, K. S., & Saxena, S. P. (2023). A Study on Assessing the Forecasting Performance of ARIMA and Regime Switching Model for AUM of Various Types of Mutual Funds in India. Abhigyan, 41(2).
- 17. Bharti, K., & Satsangi, A. K. (2023). Role of social media addiction on selfesteem and mediating effect of mindfulness. International Journal of Management Concepts and Philosophy, 16(2), 160-174.
- Bharti, K., Agarwal, R., & Satsangi, A. K. (2024). Behavioral Intention of Consumers for Green Marketing in India: The Mediating Role of Consumer Environmental Attitude. Jindal Journal of Business Research, 22786821241256188.
- 19. Bharti, K., Agarwal, R., Satsangi, A., & Rajwanshi, R. (2024). Analyzing the influence of university support and entrepreneurial culture on solar entrepreneurial intentions among Indian students. The International Journal of Management Education, 22(2), 100991.
- 20. Bharti, K., Agarwal, R., & Satsangi, A. K. (2024). The transformative service performance of InsurTech companies: using PLS-SEM and IPMA approach for examining the purchase behavior of InsurTech customers. Journal of Financial Services Marketing, 1-19. Misra, R., Srivastava, S., & Banwet, D. K. (2023). Consciousness and

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investment efficacy: the mediating role of mindfulness. Mind & Society, 22(1), 87-101.

- 21. Rani, R., & Srivastava, S. (2024). Innovation from the Ground Up: Insights from Indian Grassroots Entrepreneurs. IUP Journal of Entrepreneurship Development, 21(1), 17-37.
- 22. Satsangi, R., & Malhotra, S. (2024). Sustainable women entrepreneurship through microfinance: A system dynamic approach.
- 23. Agarwal, P., Swami, S., & Malhotra, S. K. (2024). Artificial intelligence adoption in the post COVID-19 new-normal and role of smart technologies in transforming business: a review. Journal of Science and Technology Policy Management, 15(3), 506-529.
- 24. Agarwal, P., Malhotra, S. K., & Swami, S. (2024). The role of smart technologies in managing supply chain post pandemic: an exploratory scientific procedures and rationales for systematic literature review. Journal of Science and Technology Policy Management.
- 25. Pandey, A., Banger, A., Rajvanshi, R., Jain, E., & Srivastava, A. (2023). An Interpretive Structural Modelling for Studying the Effect of E-Consumer Behaviour on Company's Value Chain. Journal of Supply Chain Management Systems, 12(2).
- 26. Jain, E., Agarwal, M., Sharma, S. K., & Kumar, A. (2023). A multivariate analysis of workplace ostracism and employee engagement: the role of psychological distress and mindfulness. International Journal of Indian Culture and Business Management, 30(1), 29-50.
- 27. Saraswata, S., Kumar, A., & Gangal, V. K. (2024). An Analysis Of COVID-19 Pandemic Management Policies: Effectiveness and Challenges in Agra District. Educational Administration: Theory and Practice, 30(1), 3663-3666.
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#### **Training and Placements**

Total No. of Students placed (including opting for higher studies/Govt. Job preparation/joining family business): 341

327 students undergoing Co-op Internship Programme in 2024.

Average Score of Industry Rating during Mid-Semester Evaluation for MBA Cohort Group at 4.01 out of 5

Students of MBA 2024 Cohort Batch had undertaken six months Co-operative Management Internship Programme at 233 organizations. Primary Companies include SRF, Birla Pivot, Helios Global, AJ Mohan and Associates, Domino Printech, Asian Paints, Voltas, Bayer Crop Science, BEL, BHEL, Bikaji Foods International, Data Resolve Tecnologies, Gurusons, Daawar Footwear, Agra Smart City, Ericsson Global Private, E&Y, Encalm Hospitality Pvt Ltd, Everest Industries, Federal Bank, Genpact, Green Gas Ltd, Growthify, Hero Enterprises, Hindustan Times, Hindware Limited, Indian Oil Corporation, Indiamart, Jaypee Palace Hotel, L&T, Lawgical India Business Developers, M.G.Co Legal, Maati Innovation, Maruti Suzuki India, National Seed Corporation, NBCC, Oswal Books, Pepsico, Raghunandan Capital Pvt Ltd, R K OVERSEAS, RNAgri Agro solutions private limited, Schneider Electric India Private Limited, Shriram Life Insurance Company Limited, Sony India Pvt Ltd, Susnovation venture Pvt. Ltd., TATA Cummins Pvt Ltd., Tata Steel Limited, Tech Mahindra, The Indian Express, Varun Beverages Ltd, WalkingTree Technologies and Zomato among others.

# **Department of Sociology & Political Science**

The department offers B.A. Social Science (Hons.), M.A. Social Science, M. Phil., Ph.D., PG Diploma in Safety, Health and Environment and PG Diploma in Human Rights and Social Work with Work Experience Courses on Uplift of Weaker Section, Local Self Government: Empirical Study. The research areas of the department are Dalit Studies, Gender Studies, Development Studies, Local Self Government, International Relations, Consciousness Studies and Human Rights. The thrust areas of research of the department are Sociology of Gender and Weaker Section, Sociological Thought and Theories, Developmental Sociology, Political Sociology, Indian Government and Politics, International Relations, Public Administration, Ethics and Values. The department offers UG, PG Course and P.G. Diploma in Safety, Health and Environment, Diploma in Human Rights and Social work, B.A. Social Science (Sociology, Online) and a Work Experience Course on Environment Health and Safety

# **Facilities in the Department**

Library, Environmental Lab, OHP, Projector and Camera, Desktop & Laptop, Printers.

# Faculty/Staff Achievements/ Awards

- Dr. Rachana Yadav served as Member of the Jury at the 31<sup>st</sup> National Children Science Congress, held at Kendriya Vidyalaya No. 1, Air Force Station, Agra, from November 23 25, 2023.
- Dr. Rachna Yadav attended Universal Human Value, Faculty Development Programme organized by AICTE, New Delhi from 02 to 06 October, 2023.

Workshops/Conferences/Seminars/Webinars/ Faculty Development Programme Attended

- Dr. Rachna Yadav attended NEP 2020 Orientation & Sensitization Programme under MMTTP of UGC organized by Regional Institute of Education, Mysore from 22 February to 1 March, 2024.
- Dr. Ishwar Swaroop Sahay attended Two-day Training on My Bharat Portal and digital Literacy from 14 15 may 2024, organized by NSS Regional

Directorate, Lucknow under Ministry of Youth affairs and sports, Government of India.

- Dr. Rajneesh Meena attended Two-day Training on My Bharat Portal and digital Literacy from 14 – 15 may 2024, organized by NSS Regional Directorate, Lucknow under Ministry of Youth affairs and sports, Government of India.
- Ms. Monika Tiwari attended Faculty Development programme organized by AMU HRDC from July to August 2023.
- Ms. Monika Tiwari attended Universal Human Value, Faculty Development Programme organized by AICTE, New Delhi from 02 October, 2023 to 06 October, 2023.
- Ms. Monika Tiwari attended Two-day Training on My Bharat Portal and digital Literacy from 14 – 15 may 2024, organized by NSS Regional Directorate, Lucknow under Ministry of Youth affairs and sports, Government of India.
- Prof. Lajwant Singh presented a paper on "Asanghatith Shetra mei Karyarat Shramikon ke Samaksha Uttpan Chunautiyan: Ek Samajshastrya Addhyan" at the International G20 Conference on *Resilient Approaches for New World Order and Viksit Bharat* in September 2023. Additionally, he presented a paper on "Bharat mei Mahila Uddmiyon ke Samaksh Chunautiyan: Ek Samajshastryan Addhyan" at the National Seminar on *Atma Nirbhar Bharat and Sashakt Naari: Perspectives of Women Empowerment* in July 2023.
- Dr. Anjali Seth attended and presented a paper at the international seminar on Vasudhaiva Kutumbkam: One Earth, One Family, One Future from 9–10 September 2023, organized by Mahatma Gandhi Antarashtriya Hindi Vishwavidyalaya, Wardha, Maharashtra. She also presented a paper titled Representation of Women in Indian Politics: With Special Reference to Parliament during a Two-Day National Seminar (Hybrid Mode) on Women Empowerment: Myth, History, and Reality from 30 September–1 October 2023. This event was jointly organized by Samajik Sashaktikaran Bahuuddeshiya Sanstha Wardha, Mahila Adhyaan Kendra of Dr. Ambedkar College of Social Work Wardha, Rashtrasant Tukdoji Maharaj Nagpur University, and Shri B. K. Samajkarya Mahavidyalaya Devli Wardha.
- Mr. Parvindra Kumar presented a paper on *Effects of the National Rural Health Mission: A Public Welfare Program in the Indian Health Sector* at the International Conference on *Interdisciplinary Research in Social Science and Humanities (ICIRSSH-2024)* held on 22–23 May 2024, organized by the Department of Liberal Arts, Chandigarh University, Punjab. He also presented a paper on *Bharat Me Matravt Mahila Swasthay and Rastriya Grahmin Swasthay Mission Ki Bhumika: A Samajshastria Addhyan* at the National Seminar on *Gender Equality: Perspectives, Issues, and Challenges* on 28–29 March 2024, organized by the Department of Sociology, Chaudhary Charan Singh University, Meerut.

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- Ms. Km. Arti and Mr. Parvindra Kumar co-presented a paper on *Rastriya Siksha Niti 2020: Uchch Siksha Per Prabhao Evan Chunotiyo Ka Ek Samajsashtri Adhayan* at the National Seminar on *National Education Policy 2020, Sustainable Development Goals and Nation Building: Perspectives, Issues, Concerns & Challenges* held on 3–4 November 2023, organized by the Department of Sociology, Babasaheb Bhimrao Ambedkar University, Lucknow. They also published an article titled Bharat Mein Grahmin Mahilayo *Ki Udhmitta Mein Bhumika: Ek Samajshastri Adhyayan* in the proceedings of the One-Day National Seminar on *Atma Nirbhar Bharat and Sashakt Naari: Perspectives of Women Empowerment,* held on 18 July 2023 in Ludhiana (ISBN 978-81-964669-4-7).
- Ms. Monika Tiwari attended and presented a paper at the international seminar on *Vasudhaiva Kutumbkam: One Earth, One Family, One Future* from 9–10 September 2023, organized by Mahatma Gandhi Antarashtriya Hindi Vishwavidyalaya, Wardha, Maharashtra. She also participated as a member of the organizing committee for the Two-Day National Conference on *Bhartiya Sant Mat: Darshan evam Samajik Upyogita* from 12–13 April, 2024, in collaboration with the Indian Council of Philosophical Research, New Delhi. Additionally, she presented a paper titled Undoing Epistemic Injustice: Theoretical Intervention into the Marginality of Dalit Worldview at the National Seminar on Epistemic Injustice and the Shaping of Indian Society (Hybrid Mode) organized by the University of Allahabad from 1–3 October, 2023.
- Dr. Rachna Yadav attended and presented a paper at the international seminar on *Vasudhaiva Kutumbkam: One Earth, One Family, One Future* from 9–10 September 2023, organized by Mahatma Gandhi Antarashtriya Hindi Vishwavidyalaya, Wardha, Maharashtra. She also participated as a member of the organizing committee in the Short-Term Capacity Building Programme on *Statistical Analysis Theory and Practice* organized by IIU-DEI in December 2023 and the Two-Day Workshop on *Role of Digitalization in MSME Creation and Growth* organized by Dayalbagh Educational Institute in collaboration with ICSSR in April 2024. Furthermore, she attended a One-Day State-Level Interdisciplinary Workshop on *Intellectual Property Rights* organized by Indian Social and Research Foundation Akola's and Panchsheel Teachers Education Society, Akola, Amravati, in March, 2024.
- Ms. Shubhankshi Sonker attended *Invest in Women: Accelerate Progress* in March 2024, organized by ICERT; and *UN & UNESCO World Day for Cultural Diversity for Dialogue and Development* in June 2024, organized by ICERT.

# **Publications**

- Nandini. (2024). Relevance of Dr. Bhimrao Ambedkar's ideas on social justice in modern India: A sociological analysis. *International Research Journal*, 11)(9).
- 2. Chaudhary, J. (2024). Role of microfinance in women empowerment. *Empowerment of Rural Women Through Microfinance*.

- 3. Singh, P. (2024). वैश्वीकरण युग में छात्राओं पर कौशल विकास की प्रभावशीलता संबंधी आयाम. Alochana Tremashik (UGC CARE LIST), 65(2).
- 4. Jatiya, A. P. (2024). भारतीय धर्मनिरपेक्षता पर गांधी, नेहरू और मौलाना आज़ाद के विचारों का तुलनात्मक अध्ययन. International Journal of Research and Analytical Reviews, 11(2).
- 5. Bhatnagar, S. (2024). A study of existing smart village practices among tribals of Rajaborari Estate. *ANVESAK, UGC CARE GROUP 1 Journal*.
- 6. Mucund, R. (2024). Navigating equality: Analysis of legal and societal challenges faced by LGBTQIA+ individuals and their depiction in cinema in India. *Scholar's Paradise, Volume 16 by Vidhi Aaga*
- 7. Solanki, A. K. (2024). Pradhan Mantri Kisan Samman Nidhi Yojana: A sociological study of income status of farmers in India. In 5<sup>th</sup> Multidisciplinary National Conference on Pre and Post-Doctoral Research in India.
- 8. Solanki, A. K. (2024). A sociological study of the legal framework concerning sexual harassment of women at work in India. In *Himalayan Ecological Research Institute for Training & Grassroots Enhancement, 2*(2).
- 9. Solanki, A. K. (2024). An analysis of the Janani Suraksha Yojana's impact on decreasing the rate of infant and maternal death. *TIJER International Research Journal*, *11*(9).
- 10. Solanki, A. K. (2024). National Rural Health Mission's impact: A public welfare initiative in the Indian wellness region. *International Journal for Multidisciplinary*, 6(5).
- 11. Jindal, M. (2024). In the dragon's shadow: China's current strategic challenges to India's national security. *World Affairs: The Journal of International Issues, 28*(2).
- 12. Dixit, S. (2024). Role of women in Indian politics. In *Vimarsh (Shodhparak Bahuvishayi Aalekho ki Sankalit Pustak)*. ISBN: 978-93-6381-844-6, Edition 1.
- Meena, R., & Mishra, S. (2024). Integrating environmental management systems with human resource management: An exploratory review of scientific procedures and rationale. International Journal of All Research Education and Scientific Method, 12(5).
- 14. Sharma, A., & Sahay, I. S. (2024). An analytical study of decision-making power of women at home in India: With special reference to Agra district. International Journal of Science and Research, 13(7).
- 15. Tiwari, M. (2024). Witch hunting in India: Mystifying women's lives and identity. Purvadeva: A Social Science Research Journal, 30(117-118).
- 16. Thenua, B. S., Sharma, G., & Jain, P. (2024). Impact of COVID-19 on forcefully displaced and migrant labourers of Faridabad: A study based on secondary sources. Journal of K R Cama Oriental Institute, 78, 121–128.

- 17. Kumari, S. (2023). Representation of women in Indian politics: With special reference to Parliament. UGC CARE Listed Journal 'संशोधक'.
- 18. Isha. (2023). भारतीय एक्ट ईस्ट नीति और आसियान: इंडो पेसिफिक क्षेत्रीय साझेदारी के निर्माण के विशेष संदर्भ में. International Journal of Science and Social Science Research, 1(2).
- 19. Jindal, M. (2023). Geopolitical realities and India: Managing external security challenges in a changing global landscape. *Education and Society (UGC Care listed)*, 46(7).
- 20. Dixit, S., & Yadav, R. (2023). भारतीय संस्कृति के संरक्षण एवं निर्माण में शिक्षा का महत्व. आलोचन दृष्टि, 8(34).
- 21. Singh, L. (2023). Other backward castes and consciousness: A sociological study (With reference to Firozabad district). Madhya Bharti, July-December.
- 22. Singh, L. (2023). Perspectives of Indian cultural nationalism: A comparative study. Journal of Oriental Institute, July-September.
- 23. Chaudhary, J. (2023). Relationship of women with environment: An exploration of eco-feminist ideology and Indian ecological movements. *International Journal of Creative Research Thoughts*, *11*(4).
- 24. Chaudhary, J. (2023). Impact of social media on youth: A review. *Journal of Emerging Technologies and Innovative Research*, 10(2).
- 25. Solanki, A. K. (2023). National Education Policy 2020: Impact and challenges on higher education. In *National Policy 2020*.
- 26. Sonker, S. (2023). Exclusion of contributions of Dalits and other marginalized communities from Indian history: A systematic review and sociological analysis of Indian curriculum. *Research Journal of Humanities and Social Sciences*, 4(4).
- 27. Sonker, S. (2023). India's response to nuclear technology in post-Fukushima period. *International Journal of Social Science and Management Studies*, 9(8).
- 28. Chaudhary, L. (2023). Menstrual hygiene management among university going girl students (with special reference to Dayalbagh Educational Institute, Agra). *Dogo Rang Sang Research Journal*, *14*(2).
- 29. Chaudhary, L. (2023). Practices and restrictions related to menstruation among women: A sociological study. *Shodh Pratigya Shree*.
- 30. Nandini. (2023). Bharat main mahila udyamiyon ke samaksh chunautiyan: Ek samajshastriya adhyayan. In *Women Empowerment: Diverse Perspectives* (in association with ICSSR).
- 31. Mucund, R. (2023). Assessing historical trends in health system preparedness for pandemics in India (with supervisor). *International Journal of Research and Analytical Reviews (IJRAR, 10)*.
- 32. Jatiya, A. P. (2023). Perspectives of Indian cultural nationalism: A comparative study. *Journal of the Oriental Institute*, 72(1).

- 33. Solanki, A. K. (2023). Role of rural women in entrepreneurship in India: A sociological study. In *Women Empowerment: Diverse Perspectives*.
- 34. Singh, L. (2023). Role of education and skill development in women empowerment. Women Empowerment, World Lab Publication, September.
- 35. Singh, L. (2023). Exclusion of contributions of Dalits and other marginalized communities from Indian history: A systematic review and sociological analysis of Indian curriculum. International Journal of Social Science and Management Studies, 9(9).
- 36. Sonker, S. (2023). India's response to nuclear technology in the post-Fukushima period. International Journal of Social Science and Management Studies, 9(8).
- 37. Sonker, S., Gaur, B., & Singh, L. (2023). Exclusion of contributions of Dalits and other marginalized communities from Indian history: A systematic review and sociological analysis of Indian curriculum. Research Journal of Humanities and Social Sciences, 4(4).
- 38. Thenua, B. S., & Upadhyay, V. (2023). India's quest for energy security: A special analysis of conventional energy resources—Crude oil and natural gas. Journal of Oriental Institute, 72(1).
- 39. Thenua, B. S., & Vijayraj, P. (2023). A study on the history and growth of the video gaming industry in India: A sociological interpretation. Education and Society, 46(10), 65–68.

### **E-book chapter**

 Dixit, Sakshi & Yadav, Rachna. In Role of Women in Indian Politics, *VIMERSH*, Vol. 1; Shubham Publicaion, Kanpur (UP), June 2023; pp 21-24. ISBN 978-93-6381-844-6

#### **Book chapter in print**

- Meena, Rajneesh. The role of sustainability and G-20 in Finance promotion. G20, sustainability in Management and Economics: future agendas and prospects. April 2024. ISBN: 978-81-19477-26-5.
- Arti, Km; Kumar, Parvindra. प्रधानमंत्री किसान सम्मान निधि योजना: भारत में किसानों की आय स्थिति का एक समाजशास्त्रीय अध्ययन. Multidisciplinary Research in India and World: An Emerging Issue and Challenges. Current Publications, Agra, 2024, pp:345-357

# Department of Psychology

The department of Psychology has a humble beginning as an Undergraduate department of the erstwhile Women's Training College in the year 1951 which was upgraded to Postgraduate level in 1969 and acquired the status of a university department in 1981. The department focuses on building a sound foundation for the understanding of the human behaviour in development perspectives of different walks of life. The department offers B.A. (Hons.) Psychology, M.A. Psychology and

Ph.D. In the session 2017-2018, the department introduced a new course, BA Social Science with Specialization in Cognitive Science. is comprised of 1 Professor, 3 Assistant Professors and 3 Emeritus Professors. The thrust areas of teaching and research are Clinical Psychology, Environmental Psychology, Cognitive Psychology and Organizational Behaviour. Evolving and progressing with existing knowledge of basic and applied science of human behaviour (clinical, cognitive, neurological, developmental, organizational, social etc.) towards interdisciplinary and transdisciplinary perspective and applications, while providing students with psychological and cognitive science knowledge, skills and experiential learning opportunities about brain, mind, consciousness and behaviour to produce leaders in research, teaching and counselling.

# **Department Highlights and salient features of the department:**

The Department focuses on building a sound foundation for the understanding of the human behavior in developmental perspective of different walks of life. Other features are Recognized by UGC; Healthy Staff - Student Ratio; Counselling Facilities; Psychological Testing; Researches on Consciousness; Paper Presentations in National and International Conferences; Paper Publications in Reputed Journals with Impact Factor; One Month compulsory practical Training in Therapeutics and Clinical Psychology conducted for Psychology major students and research scholars at Institute of Mental Health and Hospital Agra.

Many students of the Department have excelled themselves by achieving success in NET and JRF and / or securing for themselves Research Fellowships from UGC, ICSSR and BPR & D (Ministry of Home Affairs, GOI) for their Ph.D. Research Projects. Students have participated in National and International seminars/ conferences and have earned the honour of being awarded with "Young Scientist Award" carrying Cash Award, Certificates, Best Paper Award and fellowship for further research.

### **Facilities in the Department**

Psychological Lab, Psychological Clinic and Physio Pac

### Facilities created in the year

Psychological Clinic cum Counselling Cell, January, 2024

### Workshops/Conferences/Seminars/Webinars Organized

• A Short Course organized on 'Mechanistic Theories of Consciousness' was organized frpom 18-26 August, 2023.

# Workshops/Conferences/Seminars/Webinars/Faculty Development Programme Attended

- Dr. Kavita Kumar attended a 5-day Online FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) from 2- 6 October, 2023.
- Kamaljeet Sandhu and Chanchal Sharma presented a research paper entitled " *Effect of Age and Emotional Regulation on Cognitive Flexibility of University Students*" and participated in One Day National Conference on 'Yoga for

Mental and Physical Health: Scientific Perspective and Trends in Emerging Research Fields' held on 11 March, 2024, organized by Department of Psychology, School of Social Sciences, Doon University, Dehradun (Uttarakhand).

- Archana Satsangi participated in one week workshop on the research methodology and data analysis organized by the IQAC, Mata Sundri College for Women, from 22 28 April, 2024.
- Kavita Kumar, participated in one week online workshop on the "Research Methodology & Data Analysis" from 22 28 April, 2024, organised by the IQAC, Mata Sundri College for Women, DU, in collaboration with Resilient Foundation for Academic Innovation & Scientific Research, Registered with NITI Aayog, Govt. of India.
- Kavita Kumar participated in a One-day workshop on "IPR-Intellectual Property rights/ copyrights" on 3<sup>rd</sup> February 2024, organised by Dayalbagh Educational Institute, under the aegis of Council of Science and Technology (CST), Lucknow, Uttar Pradesh, India.
- Kavita Kumar participated in an AIU\_MFF Safe Campus Program held on 21 February, 2024, organized by Maratha Farrell Foundation along with Association of Indian Universities, Delhi, India.
- Kavita Kumar participated in a Workshop and Interactive session on 'Enhancing Counselling Skills among Faculty' on 11 January, 2024, Organised by UHVC & the Department of Psychology, DEI (HRD Cell).
- Kavita Kumar and Shivani Gautam presented a paper on "A Correlational Study of the Dimensions of Psychological Well- being and Ecological Awareness" on 19-20 February 2024, in National Conference on "The Global Business Behavioral Strategies for Sustainable Management Practices: ESG TO SDGS (GLOSMAN - 2024)', organized jointly by NIT, Hamirpur (HP) and IISR. Preet Kumari participated in one week online workshop on "Research Methodology & Data Analysis" organised by the IQAC, Mata Sundri College for Women in collaboration with Resilient Foundation for Academic Innovation & Scientific Research from 22 – 28 April, 2024. Neetu Chaudhary and Preet Kumari participated One day National Conference entitled "Effect of Emotional Regulation and Gratitude on Life Satisfaction of University Students" on 11 March, 2024 organized by Department of Psychology, School of Social Sciences, Doon University, Dehradun, Uttarakhand.
- Kavita Kumar and Naina Gupta presented a paper on, 'Emotional Style and Students Subjective Well-Being: Towards a Conscious Future' in Yoga for Mental and Physical Health :Scientific Perspective and Trends in Emerging Research Fields sponsored by Inter-University Centre for Yogic Sciences (IUCYS), on 11 March, 2024, organized by, Department of Psychology, Doon University, Dehradun (Uttarakhand).
- Kavita Kumar and Sumiran Pullan presented a paper on "A correlation between Mindfulness and Ethical Leadership: Empowering Sustainable

Workplace" on 19-20 February 2024, in the National Conference on 'The Global Business Behavioral Strategies for Sustainable Management Practices: ESG TO SDGS (GLOSMAN - 2024)', organized jointly by NIT, Hamirpur (HP) and IISR.

- Shivani Gautam and Kavita Kumar presented a paper titled "Exploring Personal Identity Emotional Stability and Self-Consciousness among Student: Navigating Today's Challenges" on 13 March 2024, in Tantrika 2024: The 1<sup>st</sup> international colloquium on social neuroscience held on account of the Brain awareness week 2024 by the School of Behaviour Forensics, National Forensic Science University, Gandhinagar campus, Gujarat.
- Surat Priya Sethi attended Two-week Capacity Building Programme on Research Methodology and Quality Publications for Faculty Members in Social Science, sponsored by the Indian Council of Social Science Research (ICSSR) from 4 -16 March, 2024.
- Kamaljeet Sandhu participated and gave a Lecture entitled 'Social, Emotional and Spiritual Transactions: Role of Reading Scriptures and Imagery' in a Short Course organised at School of Education, Dayalbagh Educational Institute (Online & Offline Mode) on 'Mechanistic Theories of Consciousness' held on 18th, August, 2023.
- Kavita Kumar and Naina Gupta presented a paper entitled, 'Social Media Addiction and Psychological Distress in Adolescents of Nuclear and Joint Families' 28-29 October, 2023, in the 5th International Conference, "Innovative Strategies and Advancements in Academics and Research: Navigating Global Scenarios", organized by IMHRC AND Shia P. G. College, Lucknow, U.P., INDIA
- Surat Priya Sethi attended Young Researcher Workshop: Empowering Young Researchers through CBPR, organized by Qadim Hub, University Sustainability Centre, University Malaysia Sarawak from 16 -18 November, 2023.
- Surat Priya Sethi attended Incorporating Universal Human Values in Education by All India Council for Technical Education (AICTE) from 2-6 October, 2023.

### **Publications**

- Upadhyay, Shivangini and Sandhu, Kamaljeet (2024). Neuroplasticity as Foundation of Brain- Based Learning, *INSPA Journal of Applied and School Psychology*, V(2), 97-115.
- Singh, Sanjay, Sandhu, Kamaljeet and Lokesh (2024) School Going Children: An Intervention Study with 3x3 Rubik Cube', The International Journal of Indian Psychology, 12(3). ISSN 2348-5396 (e), ISSN 2349-3429(P)
- Satsangi, A.; Gupta, A.; Nibauria, M, & Kapoor, S. (2024). Emotion- Specific patterns in Frontal- Parietal EEG Activity: A Case Study, International Journal of Current Science, 14 (2), 428-435, ISSN 2250-1770,

- Kumar, S., Satsangi, A., (2024). Tri- Gunas: A Comparative Study, Journal of the Indian Academy of Applied Psychology, 50, (Sp. Issue), 180-186, ISSN 0019 4247.
- Kumari, J., Satsangi, A., Das, I., (2024). Are human vices and spiritual consciousness related?, Journal of Emerging Technologies and Innovative Research, 11, 4.
- Chaudhary, N., & Kumari, P. (2024). Effect of Emotional Regulation and Gratitude on Life Satisfaction of University Students. The Academic-International Journal of Multidisciplinary Research, 2(7), 880-892. ISSN: 2583-973X (Online).
- Sharma, J., Kumari, P., & Chopra, R. (2024). Construction and Standardization of Composite Sustainability Scale for GHRM practices with reference to Red Category Industry. Journal of Informatics Education and Research, 4(1), 1140-1149. ISSN: 1526-4726.
- Kumari, P., & Kumari, P. (2024). Psychological Capital and Hardiness as Predictors of Psychological Well-Being under Undergraduate Students. International Journal of Current Science, 14(3), 494-499. ISSN: 2250-1770. Impact Factor- 8.17.
- Cherian, J., & Kumari, P. (2024). Mediating Role of Consciousness in the Relationship between Resilience and Happiness among Healthcare Professionals. Paritantra- Journal of Systems Science and Engineering, 28(2), 54-62. ISSN: 0972-5032.
- Kumar, K. and Gautam, S. Investigating the Dimensions of Psychological Well-Being and Ecological Awareness towards Sustainable Future. Mukt Shabd Journal, 2024, XIII (5), 1342-1353.DOI:09.0014.MSJ
- Dinkar, R. and Kumar, K. Emotional Intelligence (EI) and Spiritual Intelligence (SI) among University Students. International Journal of Research and Analytical Reviews, 2024, 11(2), 586-591.
- Das, I., Sethi, S. P., Sharma, C., Solanki, H., Dubey, N., & Gupta, K.(2024). *Attitude towards Dignity of Labour: A Comparative Study between Students of DEI and Ambedhkar University.* International Journal of Current Research. 16(5).
- Sandhu, Kamaljeet and Farooq, Ziya (2023). Comparative Analysis of Suicidal Ideation and Aggression in context to Prisoner's Status and Types of Prison in Agra City, *International Journal of Creative Research Thoughts*, *11* (11), 740-744. 1SSN:2320-2882
- Sandhu, Kamaljeet and Solanki Himanshi (2023). 'Emotionality as predictor of Severity of Menopausal Symptoms amongst Women', Madhya Bharti-Humanities and Social Sciences, 83(08(II)). ISSN:0974-0066.

- Saran, E., Mishra, S., Nigam, S. and Kumar, K. (2023). The Relevance of Value-Based Leadership and Spirituality in the Workplace. International Journal for Multidisciplinary Research, 5 (4), 1-6.
- Ekta Saran, Shalini Nigam, Kumar, K. (2023). Unlocking Organizational Success: Value-Based Leadership, Ethical Decisions, and Engaged Employees. International Journal of Research and Analytical Reviews, 10, (3), 868-874
- Kumar, K., Begum, A. and Sinha, V. (2023). The Impact of Emotional Intelligence on Organizational Commitment of Non-Resident Indian (NRI) and Resident Indian (RI) Employees. Asian Resonance, XII, (I) 1-8.
- Sethi, S. P., Das, I & Satsangi, A. (2023). Standardization of Spiritual Consciousness Scale (Scs-Sia); International Journal of Creative Research Thoughts; 11(5). ISSN 2320-2882.

# **Book Chapter**

• Satsangi, A., Saxena, S., Screen Time and The Circadian Rhythm: Work -From-Home Employees, 86-102, Multidisciplinary Research in India: An Emerging Issue and Challenges

# **Ebook**

• Dubey, N., & Kumari, P. Effect of Familiarity-Strangebility and Gender on Personal Space among University Students, Gormez, A., IKSAD Publishing House, 2024; pp 562-567, ISBN- 978-625-367-793-0

# **Placements**

- 1. Khushboo got placed as an Assistant Professor at Manav Rachna University, Faridabad , with a package of 4.8 lakhs per annum approximately in 2023-24
- 2. Jyoti Kaushik got placed as a Counsellor at K.D. Modi School, Modi Nagar, with a package of 2 lakhs per annum approximately in 2023-24
- 3. Ritu Raj got placed as an Assistant Professor at Amity University NOIDA, with a package of 3 lakhs per annum approximately in 2023-24
- 4. Ziya Farooq got placed as an Assistant Professor at JS University Shikohabad, with a package of 2.4 lakhs per annum approximately in 2023-24
- 5. Jincy Cherian got placed as an Assistant Professor at Amity University NOIDA, with a package of 3 lakhs per annum approximately in 2023-24
- 6. Varsha Gautam got placed as an Assistant Professor at Amity University NOIDA, with a package of 3 lakhs per annum approximately in 2023-24
- 7. Shruti Dutt got placed as an Assistant Professor at Amity University NOIDA, with a package of 2.4 lakhs per annum approximately in 2023-24
- 8. Shaktiyanshi Roundele got placed as Guest Faculty at Amity University NOIDA, with a package of 2 lakhs per annum approximately in 2023-24

# Schools and Colleges

# **Staff Achievements**

# DEI PV Girls' Intermediate College

- Dr. D. Shikha, Senior Lecturer was invited to co-chair the International Conference on Music that was conducted from 16-18 January, 2024 in DEI. She also made a presentation at this conference.
- Dr. Preetam Pyari Roy, Senior Lecturer was invited to co-chair the International Conference on Music on 18 January, 2024.
- Dr. Madhu Bala Gupta, Lecturer participated in an online workshop on career counselling organized by High School Moms and Guide AI for teachers on October 29, 2023.
- Ms. Neeta Satsangi published a paper entitled 'The Effect of Yoga and Meditation on Energy Level of Upper Primary and Secondary Level School Students' which was published in the Journal 'International Journal of Yoga, Physiotherapy and Physical Education.
- Mrs. Abha Malhotra and Mrs. Mani Padam served as members of the jury at the 31st National Children Science Congress, held at Kendriya Vidyalaya No. 1, Air Force Station, Agra, from November 23 - 25, 2023.

### **DEI REI Boys' Intermediate College**

- Rotary Club of Agra Greater felicitated Mr. RAMVEER SINGH YADAV for NATION BUILDER AWARD 2023 3 Sep 2023.
- Mr. J. P. Dubey was declared Man of the Match (Semifinal and Final) and Overall – Man of the Tournament in the DEI Staff Cricket Tournament 24-25 Dec 2023 organized by DEI, Dayalbagh.
- Mr. Shailendra Singh served as members of the jury at the 31st National Children Science Congress, held at Kendriya Vidyalaya No. 1, Air Force Station, Agra, from November 23 25, 2023.

### DEI <u>Ra Dha Sva Mi</u> Saran Ashram Nagar School

- Mrs. Sherry Arora attended a five-day online workshop on 'Jolly Phonics Training' in September 2023, organized by Mrs Jigna Dharod, Chief Trainer and Director of Phonics Kingdom, Mumbai.
- Mrs. Sherry Arora participated in a workshop on 'Handwriting Improvement and Speed Writing', conducted by Mrs Jigna Dharod, Chief Trainer and Director of Phonics Kingdom, in December 2023.
- Mrs. Sherry Arora participated in a three-day online workshop on "All About Prepositions," facilitated by Mrs Hiran Bagadia, Director of Balaji Eduserve Bangalore, in September 2023.

# **Student Achievements/ Awards**

# Name of School: DEI PV Girls' Intermediate College

• Ms. Nikita, Alumni of PV secured 75<sup>th</sup> Rank in PCS in year 2023.



### Ms. Nikita secured 75th Rank in PCS in the year 2023

- Ms. Chhabi Bhandari, Head Girl and student of Class 12 presented a poster in the DSC winter session of December 2024, "Viewing the transportation of Human Consciousness from Microcosm to Macrocosm through the lens of Indian knowledge system with a special focus on the impact of nature and nurture on Human Consciousness".
- Ms Chhabi Bhandari, Head Girl and student of Class 12 Presented a research paper at the Mind and Brain Consciousness Conference (MBCC) held at Indian Institute of Technology (IIT), Mandi on 14, 15 and 16 December 2023. The research paper is titled, "Viewing Indian Knowledge Systems through the Lens of Sant Su (Superman) Evolutionary Scheme with Special Focus on Dayalbagh Way of Life."
- Ms. Chhabi Bhandari, Head Girl and student of Class 12-Won the best paper award in the conference on, "INDIAN KNOWLEDGE SYSTEM FOR SUSTAINABLE DEVELOPMENT IN THE CONTEMPORARY WORLD," organized by the School of Humanities & Social Sciences at Sharda University (SHSS.) The paper is titled, "Viewing Sustainable Development and the Indian Knowledge System through the Lens of Dayalbagh Way of Life and SantSu (Perman) Evolutionary Scheme with a Special Focus on Sigma 6 QVA (Qualities, Values, Attributes.)"
- Ms. Chhabi Bhandari, Head Girl and student of Class 12-won ₹500 cash prize and secured the second position in a poem writing competition organised by HS Publications for writing a poem called "My Imaginary World/Life."

- Ms. Surat Mehra- Class 9 won the Best Poster Award in the DSC 5<sup>th</sup> Winter Session 2024. The topic of the poster was, "Transport in Dayalbagh- A New Era of Mobility.
- Ms. Vandana Chandwani of Class IX won the Gold Medal and secured International Rank 1420 in the GK Olympiad organized by SOF International General Knowledge Olympiad in the month of September 2023.
- Ms. Nirat from class VI and Ms Tanisha from class XI have been selected for the level 2 competition of the English Olympiad organized by SOF International English Olympiad in the month of November 2023. Students of Class VI, Roshni, Nirat, Swarupika, students of Class VII Nihar Bhushan and students of Class XI, Amrita Thapar, Damini and Tanisha got the prestigious gold medal of excellence in this Olympiad.

**National Book Fair:** Akshara Sahitya Academy organized a book fair literature festival from November 25 to December 3, 2023. Students of DEI Prem Vidyalaya presented Nukkad Natak on the theme 'Acid Attack'. Students also presented songs, dance and poem recitation in three languages i.e. Hindi, English and Sanskrit.



National Book Fair

# DEI REI Boys' Intermediate College

- Mr Akshar Suri (of Class VII) won first prize in a district-level Sanskrit competition organized by Uttar Pradesh Sanskrit Sansthan, Lucknow on 04-09-2023. He also won second prize in a music competition organized by Uttar Pradesh Sangeet Natak Academy on 07-11-2023
- Mr. Charan Saran Verma (of Class VII) won second prize in the Hindi poem recitation competition organized on Innovation, Quality and Valuation Day, 12<sup>th</sup> November, 2023.
- Mr. Dhur Satsangi (of Class VIII) won first prize in Hindi poem recitation competition organized on Innovation, Quality and Valuation Day, 12<sup>th</sup> November, 2023.
- Mr. Vyom Jangid (of Class IX) won first prize in English poem recitation competition organized on Innovation, Quality and Valuation Day, 12<sup>th</sup> November, 2023.
- Mr. Pankaj Yadav (of Class VIII) won Medal in Volleyball Match at NCC Camp

- Mr. Dhur Satsangi (of Class VIII) was overall winner in Badminton tournament held at DEI in Singles and Doubles.
- Mr. Akashar Sahai won second prize in Inter-school Elocution competition organized by DEI School Boards.

# DEI <u>Ra Dha Sva Mi</u> Saran Ashram Nagar School

- Master Shabd Mehta won the gold medal (at the school level) in the English Olympiad organized by the Science Olympiad Foundation, in 2023.
- Ms. Sargun Bhatnagar (of Class 2) participated in a poster presentation in the 5th Winter Session of the DSC 2024.

# **DEI PV Primary School**

- Ms. Prarthna (of Class II), Ms. Surat Shabda (of Class III), Ms. Agam Shabda (of Class IV), Ms. Anmola Bandagi (of Class III), Master Adi Shabd Mehra (of Class IV) participated in poster presentation in the 5th Winter Session of DSC 2024.
- Ms. Agam Shabda reached the final round under the 8-12 years category in Magical Voice of Agra, Season 5 organized by R.S. Public School on 20<sup>th</sup> April 2024.

# Workshops/Conferences/Seminars/Webinars Organized

# **STEM and Coding Workshop**

The coding and STEM Workshop was organized from 22-05-2024 to 29-05-2024 for students of Class V to XII. Professors from Faculty of Science (Prof. Sukhdev Roy, Prof. Sonali Bhatnagar, Dr. Amla Chopra and Dr. Shiroman Prakash) and Teachers from Faculty of Engineering (Mr. Gur Pratap Kalra, Mr. Amarjeet Singh), DEI were the resource persons for the workshop. Each day there were three sessions (i) Python coding hands-on practice for girls (ii) STEM session for both boys and girls (iii) Python coding hands-on practice for boys. Mr. Hardik Chadda, Faculty of Science, DEI and Mr. Arjun, Faculty of Education, DEI conducted sessions on Python Coding.

The STEM sessions were interactive and included sessions on topics like Quantum Cloud Computing, Fundamental Particles and their Quantum World, Making Light Work, Signaling in the Brain, Green Technology, Drone Technology, and Grand Challenges in Sciences and Consciousness. 265 students participated in the workshop from schools of the DEI Board in Agra, Rajaborari, Delhi and Ra Dha Sva Aa Mi Satsang Associations of Delhi, Haryana, Uttar Pradesh Maharashtra and Gujarat.





### Foldscope Workshop

International Workshop for School Students on Foldscope, Frugal Innovation and Science Appreciation was organized on 5<sup>th</sup> October, 2023 for students of DEI Board Schools at DEI Primary School, Dairybagh. 170 students of DEI Board schools participated in the workshop and received a foldscope kit.

#### **Other Workshops**

Several other one-week workshops were organized between June 3 to June 15, 2024 for DEI Board School students of Class V to VII like (i) Learning Sanskrit and English through technology in i-c-n-c TALL (Information-Communication-Neuro Cognitive Technology Assisted Lab). These were organized by Mrs. Preeti, and Ms. Parmita, Teacher, DEI PV Girls' Intermediate College. (ii) Learning Maths with Games and Puzzles. It was organized by Ms. Ruby, Honorary Teacher, DEI PV Girls' Intermediate College (iii) Learning English through Drama. The resource person was Mrs. Beena Rao, Former Lecturer, SCERT.

#### **Inter-School Competition**

The DEI Board schools organised an Inter-School Competition on 16th December, 2023 in the lawns outside Convocation Hall, DEI. The themes of the event were (i) Relationship between Nature and Nurture (ii) Microcosm and Macrocosm. The event included students ranging from pre-school to higher secondary divided into four levels: Foundational, Preparatory, Middle and Secondary. A total of 281 students from nineteen schools (including six schools of DEI) participated.

The panel of judges included Professors from different universities, eminent writers, retired teachers and an IAS officer. Almost every school bagged some prize. The champion trophy was awarded to the Holy Public School based on maximum participation and prizes won. The event was blessed by the August presence of Most Revered Prof. Prem Saran Satsangi Sahab, Chairman, Advisory Committee on Education, Dayalbagh Educational Institutions.

# **School Level Competitions**

### **DEI PV Girls' Intermediate College**

**Pidilite Workshop:** A three-day workshop was organized by Pidilite India from December 5 to December 7, 2023, for IX to XII standard students of DEI PV Girls' Intermediate College. Mr. Narendra Solanki from Pidilite India, was the instructor of this workshop. Students learnt freehand brushwork, stencil cutting, colouring in double shades with the help of stencil, and instant Tie and Dye with acrylic colours. Students created tortoises in Dokra art form and Lippan art on the MDH board. Apart from these, students learnt to decorate plates and glass bottles with the help

of acrylic paint. The workshop proved to be fruitful for the students in enhancing their artistic skills, creativity and novelty.



Workshop on Pidilite in Middle School and Senior School

**Exhibition-** The exhibition was organized in DEI PV Girls' Intermediate College on 11th December 2023 in which students displayed their projects in Science, Commerce and Arts. Prof. Vibha Satsangi, Ms Vineeta Srivastava, Ms Surat Prasad, Ms Swarup Rani, Dr Monika Tivari, Ms. Neha Bansal and Ms. Divya were the judges.



Display by Students in Exhibition

Mr. Ram Singh and Dr. Mukesh Gautam of DEI Technical College were invited as Resource Persons at Mathura Refinery, an Indian Oil Corporation Limited (IOCL) Unit, on 2 May 2023, for the One-Day Training Programme on 'Hands-on Engineering Drawing' organized for the Boiler Operations Engineer (BOE) aspirants. The BOE aspirants from other Refinery Units of IOCL across India also joined the Training Programme in online mode.



# **School News:**

A Python Coding Language workshop was held in DEI FAB LAB from May 22 to 28, 2023, for students from class 6 to class 12 to give them hands-on lab experience. In this workshop, students learned the basics of Python language and Plotting Graphs, Image Editing, etc. by using Python.

**New Students Cabinet takes Over:** On May 2, 2023 elections were held to elect Representatives of Students. In this process, students participated very enthusiastically and learnt the democratic values of India. Following are the Central Cabinet members of Prem Vidyalaya: Ms. Chhabi Bhandari- Head Girl, Ms. Neha Yadav- Joint Head Girl, Ms. Tamanna Satsangi- Discipline In-Charge and Ms. Dhun Aadhar- Social Service In-Charge.

**NCC Training Camp:** A CATC 17 Camp of NCC was organized from December 12 to December 21, 2023, at Shri Rajendra Singh College, Dhimishri, Agra. In this Camp, 44 cadets of DEI Prem Vidyalaya participated with full energy, intensity, and passion under the able guidance of Captain Surat Pyari. Many other reputed colleges of Agra, like, Agra College, and Agra Public School, were also there. Many competitions were held to test the calibre of the cadets and our students came up with flying colours and won several prizes, which included, Winner in Tug of War, Second in Drill Competition, First in Group Song, First in Solo Dance (Ms. Anjali Baghel XII Arts), First in Solo Song (Ms. Satviki Saran XII Commerce) and also the Best Cadet Award (Ms. Satviki Saran).



# **Olympiad:**

The English Olympiad was organized by SOF International English Olympiad in November 2023. In this Olympiad, 50 students of Class VI to XII took part and did extremely well. Nirat from class VI and Tanisha from class XI have been selected for the Level 2 Competition. Roshni, Nirat, Swarupika from class VI, Nihar Bhushan from class VII, Amrit Thapar, Damini, and Tanisha from class XI got the prestigious Gold Medal of Excellence.

In a District-level Sanskrit Talent Search programme organized by Uttar Pradesh Sanskrit Sansthan on September 14, 2023, at KM Munshi Institute of Hindi and Linguistics, Dr Bhimrao Ambedkar University, Agra, students of DEI Prem Vidyalaya participated with great zeal. In this event, sixty-seven students from various schools participated to show their capabilities in singing, speaking and general awareness of the Sanskrit language. Students of DEI Prem Vidyalaya came up with flying colours by winning many medals in different segments.

# Seminars and Conferences

#### **Two-Day International Conference DSC-ATDI 2024:**

Dayalbagh Educational Institute and the Association for Transport Development in India (ATDI), in collaboration with six international universities, hosted the Fifth Winter Session of the Davalbagh Science of Consciousness (DSC) on December 31, 2023, and January 1, 2024, coinciding with Shiksha Diwas and Dayalbagh Science of "Consciousness, Conscience, and Awareness" Day. The first day featured presentations Regional Satsang Associations from India and abroad on the by 16 theme "Conscientiousness-Driven Self-Reliant Socio-Spiritual Model of Dayalbagh" and cultural programs by children. The second day focused on "Community Conscientiousness for Mobility and Ultimate Consciousness" through a panel discussion, with a Vision Talk by Most Revered Prof. P.S. Satsangi Sahab and insights from 30 global panelists on integrating mindfulness, ethical conduct, and sustainability into transportation, technology, and lifestyle. The event concluded with a students' poster session and cultural performances, including a Camel Song commemorating the UN's International Year of the Camelids (2024), underscoring Dayalbagh's commitment to spiritual and socio-scientific progress.



### A One-Day Workshop on "IPR: Intellectual Property Rights and Copyrights

A One-Day Workshop entitled "IPR: Intellectual Property Rights and Copyrights" took place on February 3, 2024, at the International Seminar Hall, Dayalbagh, Agra.

The event was coordinated by the Department of Footwear Technology, Faculty of Engineering at Davalbagh Educational Institute (Deemed to be University), India. Dayalbagh, Agra-282005, This IPR workshop offered a unique opportunity for scientists. engineers, educators, and students to deepen their understanding of intellectual property and patents. Its primary goal was to instill foundational IPR awareness among



teachers, student teachers, and aspiring intellectuals, highlighting the advantageous aspects of patenting their inventive and original ideas and creations. Such awareness is instrumental in fostering creativity, nurturing research talent, driving technological advancements, and facilitating market applications.

## Workshop Organized Under UHV Cell, DEI

The Universal Human Values Cell, DEI and the Department of Psychology of the Institute hosted a Workshop entitled, 'Enhancing Counselling Skills Among Faculty' on 11 January 2024. The event was inaugurated with the University Prayer and Opening Remarks by Smt. Mala Srivastava, I.A.S. (Retd.) who emphasized the significance of HRD cells in DEI. Prof. K. Santi Swarup, Co-ordinator of UHV Cell, outlined the activities undertaken by these cells, aimed at assisting the First-year female students in course selection based on interest, abilities, and aptitude. Dr. Sanjay Singh, Assistant Professor, Dept. of Psychology highlighted the importance of counselling tools. The Workshop concluded with the plans for the HRD cells to increase visibility, maintain counselling records, and incorporate counselling periods into faculty schedules. Future initiatives include Orientation Sessions, Workshops for Skill enhancement, and regular updates on progress. The meeting ended with a Vote of Thanks, marking a significant step towards improving faculty counselling skills at DEI.

# Short-Term Capacity Building Programme on Statistical Analysis

The Association of Indian Universities, in collaboration with Dayalbagh Educational Institute and the AIU-DEI Academic and Administrative Development Centre, organized a Capacity Building Programme on Statistical Analysis (Applications of SPSS and R-Software in Research) from November 28 to December 5, 2023, at DEI. The event, inaugurated by dignitaries including Dr. V. M. Katoch, former DG of ICMR, and Prof. C. Patvardhan, featured expert sessions by scholars from DEI, Dr. B. R. Ambedkar University, and the University of Pittsburgh. The 16-module course combined theoretical and practical sessions, providing hands-on training to 54 participants in SPSS and R.



Short-Term Capacity Building Programme on Organizational Behaviour and Life Skills leading to Better Worldliness February 26, 2024 to March 02, 2024

The program, inaugurated on February 26, 2024, featured notable speakers including Mr. Anoop Srivastava, who emphasized goal-setting and continuous improvement, and Professor VB Gupta, who discussed innovative educational recommendations. Prof. C. Patvardhan highlighted the role of leadership in

achieving organizational success, while Mrs. Sneh Bijlani also attended the ceremony. The 6-day program, focusing on organizational behavior and leadership, featured insightful sessions from experts in various fields.

Day 1: Ms. Shweta Prasad explored Emotional Intelligence and its impact on performance. Ms. Gazal Mathur discussed developing a growth mindset, while Mr. Swami S. Prasad Satyavolu emphasized leadership values like respect and trust in global teams.

Day 2: Prof. Shalini Nigam covered adaptability skills, and Ms. Punam Prakash linked communication to the Golden Mean Theory. Dr. Purnima Bhatnagar presented on CSR and sustainability, highlighting Dayalbagh Educational Institute's initiatives.

Day 3: Prof. Sumita Srivastava addressed managing conflicts productively, Dr. Viren P. Singh discussed leadership ethics, and Dr. Ajit Kumar Nigam connected CSR to organizational success.

Day 4: Mr. Kaushal Kodesia shared strategies for overcoming organizational challenges, and Ms. Priya Jayant explained consensus building techniques.

Day 5: Dr. Anjali and Dr. Ajit K. Nigam led discussions on gender sensitization and multicultural collaboration. Mr. Mohit Taneja concluded with a session on interpersonal effectiveness, highlighting trust and communication.

The workshop concluded with excellent feedback from participants, certificates, and a collective pledge, thanking the organizers for their efforts.

# Short-Term Capacity Building Programme on Research Methodology, March 11 to March 16, 2024

A comprehensive six-day programme on Research Methodology was held from March 11 to 16, 2024, at the Dayalbagh Educational Institute (DEI). This program aimed to deepen participants' understanding of curiosity-driven research and its applications across various disciplines. Distinguished academicians, faculty members, students, and researchers participated in the sessions, which were marked by interactive and practical engagements. The inaugural session commenced with an introduction to the theme by Prof. V. K. Gangal, the convener. The chief guest, Prof. N.P.S Chandel, emphasized the significance of research and the methodology for conducting original studies. The Guest of Honour, Prof. M. Naved Khan from Aligarh Muslim University, shared his expertise on research frameworks, while Prof. Jyoti Gogia, the nodal officer of AIU-DEI-AADC, outlined the program's objectives. On Day 1 A talk on Necessity and Stages of Research was delivered by Prof. M. Naved Khan (AMU) who introduced participants to the essentials of research. Prof. Khan combined theoretical insights with real-life examples, helping participants grasp research paradigms, data collection techniques, and interdisciplinary approaches to modern challenges. On Day 2 Prof. Pushpendra Surva from Kirori Mal College, delivered a lecture on Literature Review and Hypothesis Formulation. He emphasized the critical role of literature reviews in framing research questions and hypotheses and connected the philosophical roots of curiosity-driven research to practical applications, fostering an engaging session. Day 3 was marked with a hands-on session on AI-driven tools for data mining,

literature review, hypothesis development, and data cleansing by Prof. Nidhi Sharma from BHU. Participants were trained in managing references and preparing research reports. On day 4 Dr. Preet Kumari from DEI provided in-depth training on parametric and non-parametric tools, including t-tests, z-tests, F-tests, ANOVA, and chi-square tests, utilizing SPSS. The session focused on equipping participants with practical skills for hypothesis testing and data analysis. The 5<sup>th</sup> Day was focused on Report Writing, Ethics, and AI in Research. Dr. Rekha Handa from GNDU guided participants on effective report writing and publishing research findings while addressing challenges like ethics and resource limitations. Dr. Mange Ram from DEI provided insights into plagiarism, proper citation techniques, and academic ethics. Dr. V. Prem Prakash from DEI highlighted the revolutionary potential of Artificial Intelligence (AI) in research. Hands-on sessions demonstrated AI applications, including NLP and Large Language Models (LLMs), for literature review, data analysis, report preparation. day and 0n 6 Prof. Rupali Satsangi from DEI elaborated on preparing impactful research proposals and papers for reputed peer-reviewed journals. She shared strategies to overcome challenges in publishing and guided participants on selecting high-impact journals.

# Short-Term Workshop on Impact of Climate Change on Biological Systems April 15, 2024 to April 20, 2024

A short-term workshop on "Climate Change and Sustainability" was organized from April 15–20, 2024. The event aimed to provide a multidisciplinary perspective on climate change and its far-reaching impacts on ecosystems, health, and human psychology while offering actionable solutions. The workshop featured eminent speakers, engaging discussions, and interactive sessions, fostering awareness and encouraging sustainable practices. The inaugural session, commenced with a welcome address by Prof. Sant Prakash, Convener of the workshop. Prof. C.R. Babu, Chairman, Department of Environmental Studies, Delhi University, delivered an insightful talk on "Ecosystems and Nature-Based Solutions to Mitigate, Adapt, and Build Resilience to Climate Change." His address underscored the importance of harnessing natural solutions for climate resilience. The inaugural address by Prof. R.J. Rao, Former Vice-Chancellor, Barkatullah University, highlighted the urgency of addressing climate change challenges through collective efforts. On day 2 Prof. Afifullah Khan (AMU) addressed "Myths and Reality About Climate Change" and stressed the role of wars in exacerbating climate change. He advocated for peace as a climate action strategy, sparking an engaging discussion among participants while Mr. Pankaj Gupta (Zero Energy Solutions) presented on "The Interconnection Between the Built Environment, Climate Change, and Biological Systems," emphasizing the environmental costs of urbanization and construction. On Day 3 Dr. Indrajit Sinha from Florida, USA discussed "Microalgae Biotechnology Paving the Way to a Carbon-Negative Future," showcasing innovative strategies for mitigating climate change using microalgae and Dr. Ashok Kumar (ICAR) delivered a talk on "Impact of Climate Change on Animal Health Systems," focusing on emerging livestock diseases, carbon footprints, and Indian policy initiatives for mitigation. On day 4 Prof. Vimla Rani Chopra from Texas University emphasized "Climate Change: Your Actions Matter," demonstrating how individual actions contribute to planetary

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sustainability and Dr. Brij Kishore Gupta (Reliance Zoo) explored "Living in the Anthropocene," addressing the challenges posed by anthropogenic activities, zoonotic diseases, and invasive species. On Day 5 Dr. Simantini Ghosh from Ashoka University delivered an interactive session on "Climate Change and Psychology, Theory and Practice," analyzing the human role in global warming through audience engagement and Dr. Keshar Kunja Mohanty from ICMR discussed "Effect of Climate Change on the Immune System and Health," highlighting the worsening of pathogenic diseases due to climate change and advocating nature-connected lifestyles. On day 6 Dr. Nisha Patro from DBT Centre for Neuroscience) delivered a talk on "Environmental Influence on Brain Development," emphasizing the role of glial cells and their interaction with neurons in brain health.

# 10-days Faculty Development Program (FDP) on "Statistical Techniques in Research' from May 22–31, 2024

Faculty Development Program (FDP) on "Statistical Techniques in Research" was organized from May 22-31, 2024. The program aimed to enhance participants' understanding of statistical concepts and equip them with practical skills using software tools like R and SPSS for handling and analyzing big data in educational and social sciences research. The inauguration took place on May 22, 2024. Prof. Nandita Satsangi, Dean of the Faculty of Education, DEI, extended a warm welcome to the esteemed guests and participants. Prof. N. P. S. Chandel, the Convener of the FDP, outlined the objectives, emphasizing the importance of statistical tools in research. Prof. C. Patvardhan, Director, DEI, stressed the need for developing computational and analytical skills using modern software tools to address challenges in research. Prof. Manoj Kumar Srivastava, Vice-Chancellor of Shaheed Mahendra Karma Vishwavidyalaya, delivered the inaugural address, highlighting the pivotal role of statistics in social sciences and education research. The inaugural lecture on "Introduction to R Programming in Statistics" was conducted by Prof. Gursaran from Department of Mathematics, DEI, who explained the fundamentals of statistics. Dr. Keerti Jain from NIIT University conducted a session on the installation and data handling in R, marking the beginning of the program's technical sessions. The FDP spanned 20 technical sessions, conducted by renowned experts across diverse topics, blending theory with practical demonstrations. On Day 2 Prof. Abid Siddiqui gave Lecture on various types of correlation and their research from AMU applications and Prof. Ravins from Jamia Millia Islamia gave Lecture on regression and multiple regression techniques, emphasizing their relevance in research. On Day 3 Prof. Shalabh from IIT Kanpur gave lecture on A comprehensive session on regression and multiple regression with hands-on demonstrations using R and Prof. Gursaran from DEI gave Lecture on data visualization techniques using R. On Day 4 Dr. C.L. Singh from DEI took a session on path analysis, followed by hands-on practice with correlation and regression in R and Dr. Keerti Jain from NIIT University delivered lecture on hypothesis testing using R, supported by practical exercises. On Day 5 Prof. N. P. S. Chandel from DEI took a Session on the normal probability curve and its applications in research and Prof. Namita Srivastava from St. Johns College, Agra gave Lecture on descriptive statistics in R, providing hands-on experience. On Day 6 Prof. N.C. Ojha from NCERT, Bhopal gave Lecture on the reliability and importance of parametric statistics and Prof. Namita Srivastava took a session on parametric tests and computation in R. On Day 7 Dr. Preet Kumari from DEI took a session on non-parametric statistical techniques in research and Prof. Namita Srivastava took hands-on session on non-parametric tests using R. On day 8 Prof. Ravins Dohare from Jamia Millia Islamia delivered a lecture on Analysis of data using network science and its applications in research while Prof. Ajay Surana from Banasthali Vidyapeeth gave a lecture on ANOVA and ANCOVA, focusing on their calculations. On day 9 Dr. Manoj Kumar from JNU, New Delhi took a session on ANOVA and ANCOVA using R, addressing participants' queries effectively and Dr. Ashwani Garg from NCERT, Bhopal took session on the selection of statistical techniques in research, with practical illustrations. On day 10 Prof. Rupali Satsangi from DEI gave lecture on factor analysis with practical demonstrations using SPSS and Prof. Manoj Kumar Srivastava from Shaheed Mahendra Karma Vishwavidyalaya took Session on cluster analysis and its computational steps and Dr. Anup Kumar from Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow delivered a lecture on factor analysis in R.

# Activitites at DEI

# Nurturing Minds, Shaping Futures: Teachers Felicitated on Teacher's Day at DEI



Teacher's Day is a momentous event celebrated in Dayalbagh Educational Institute (Deemed to be University), Dayalbagh, Agra-5, to acknowledge the commitment and contribution of teachers to the noble cause of countermanding ignorance and enlightening humankind. On September 5, 2023, the programme began with the Institute Prayer followed by a speech on the importance of the day and a reading of a brief profile of Dr. S. Radhakrishnan, a great educationist, and former President of India, whose birthday is commemorated as Teacher's Day across the country. It was followed by Guru Vandana, Saraswati Vandana and a poem dedicated to Teachers. Mementoes were awarded to some of the retired teachers of the Institute, such as Prof. Shiv Kumar Sharma, Prof. V Soami Das, Prof. D. Ganeshwar Rao, Prof. Poornima Jain, Prof. D. Vasanta Kumari and Prof. Agam Kulshreshtha by Prof. Anand Mohan and Mrs. Sneh Bijlani, Registrar and Treasurer of the Institute respectively. The teachers then shared their experiences with the audience. Director of Dayalbagh Educational Institute (DEI), Prof. P.K. Kalra, expressed his views on the role of teachers in society. The Vote of Thanks was delivered by Prof. Anand Mohan. The celebration concluded with the Institute Song followed by the National Anthem. The programme was conducted by students of the Faculties of Social Sciences and Commerce.

## Springer Nature's National Research Tour

Springer Nature in collaboration with the Indian Ministry of Education organized a unique Research Summit at Dayalbagh Educational Institute on October 1, 2023 to explore the topic "Strengthening Research around Sustainable Development Goals (SDG's). The program was attended by key personalities (Shri Govind Jaiswal, Ministry of Education; Mr. Venkatesh Sarvasiddhi, Managing Director, Springer Nature, India; Ms. Laura Helmuth, Editor-in-chief, Scientific American; Mr. Arend Kuester, Director- Academic Affairs, Springer Nature, Germany; Mr. Ed Gerstner, Director- Research Environment, Springer Nature, London; Dr. Ramanuj Narayan, Director, CSIR-IMMT; Shri G.S. Sood, President RS Sabha & DEI; Prof. C. Patvardhan, Director, DEI) from higher education, policy makers, research, publishing and civil society ecosystem to deliberate on the role of publishers and authors in Research Dissemination. Students, researchers, faculty on the DEI campus and more than 20,000 viewers across 15+ countries attended online. This knowledge sharing session helped broaden the understanding of publishing and research among bright minds at the Institute.

### **Innovation, Quality and Valuation Day Celebrations**

Deepavali/ Diwali has been celebrated as "Innovation, Quality and Value/Valuation Day" in DEI as an annual event. This celebration holds a significant place in the calendar of events at DEI and Dayalbagh akin to the importance of Shiksha Diwas which is celebrated on 1st January and Founder's Day is celebrated on 31st January on the most pious occasion of the

birth anniversary of Revered Dr. MB Lal Sahab, The August Founder Director of DEI. On the auspicious occasion of Diwali on 12th November 2023, a distinguished Panel Discussion and Special Performance by the students of DEI were organized to celebrate the spirit of innovation and quality. The event was attended by a diverse audience spanning 489 +/-1 study centers and around 20,000 people connected worldwide, through the e-cascade network. Their presence enriched the event, offering a unique celebration of Diwali marked by innovation and excellence.

The Panel discussion was centered around the theme of "Innovative Culture, Core Values, Quality Education and Valuation' comprised of distinguished panelists Prof. Budd Hall, University of Victoria, Canada, Prof. Prem Vrat, Northcap University, Gurugram, Prof. Joy Sen, IIT Kharagpur, Dr. Dhirendra Rai, Banaras Hindu University, Prof. Karmeshu, Distinguished Professor, University of Petroleum and Energy Studies, Dehradun, Prof. VB Gupta,

Vice-Chairman, ACE, Dr. Apurv Narayan, University of Waterloo, Prof. Anand Srivastava, Keil University, Germany, Dr. Arsh Dhir, TA to Chairman, ACE, Prof. PK Kalra, Ex-Director, DEI, and Smt. Sneh Bijlani, Treasurer, DEI. Shri Gur Sarup Sood, President Radhasomai Satsang Sabha, and DEI chaired the session and Prof. C. Patvardhan, Director DEI, and Prof. Anand Mohan coordinated the discussion.

The occasion was supremely blessed by the August Presence of Most Revered Prof. P.S. Satsangi Sahab, Chairman, Advisory Committee on Education, DEI. The Benign presence of the Most Respected Rani Sahiba served as a great source of encouragement to all present. In His Ambrosial Vision Talk on this occasion, Revered Prof. Satsangi Sahab Graciously observed that Diwali or Deepavali is the Hindu Festival of lights with its variations also celebrated in other Indian religions. It symbolizes the spiritual victory of light over darkness, good over evil, and knowledge over ignorance. Diwali is celebrated during the Hindu Lunisolar months of Ashvin (According to the Amanta tradition) and Kartika between around mid-September and mid- November, The celebrations generally last five or six days. In





Dayalbagh (HQ of Radhasoami Satsang Sabha, Dayalbagh, Agra-282 005, UP, India) and DEI (Deemed to be University), there is a special significance of this day. Every year Diwali Day is celebrated as Innovation, Quality, and Valuation Day.

Prof. Satsangi also enlightened the congregation with the recent grand achievement of Prof. VB Gupta, Prof. Sukhdev Roy, and Prof. DK Chaturvedi of DEI for being ranked as Top 2% of Scientists in the global ranking. The other eminent panelist opined that an innovative educational culture encourages students and faculty to think creatively and outside the box. It supports an environment where new ideas are welcomed and explored to solve social, economic, and environmental problems. Core Institutional values that prioritize ethics and social responsibility also guide the institution in making decisions that positively impact society. This is crucial for community engagement and development. Quality education involves adopting innovative teaching methods that go beyond traditional lectures. The systemic and holistic integration of an innovative culture, adherence to core values, the delivery of quality education, and strategic valuation are essential for higher educational institutions (HEIs) to play a transformative role in community engagement and development, both in India and globally. These elements collectively contribute to the holistic development of students and the creation of knowledge that addresses societal challenges with innovative and futuristic solutions.

## **Inter-School Competition Organized**



The DEI Board Schools organized an Inter-School Competition on 16 December 2023 at the lawns outside the Convocation Hall of the Institute. The themes of the event were (i) Relationship between Nature and Nurture and (ii) Microcosm and Macrocosm. The event included students ranging from Preschool to Higher Secondary divided into four levels: Foundational, Preparatory, Middle, and Secondary. A total of 281 students from nineteen schools (including six schools of DEI) participated.

The panel of judges included Professors from different universities, eminent writers, retired teachers, and an IAS officer. Almost every school bagged some prize. The Champion Trophy was awarded to the Holy Public School, Agra, UP, based on maximum participation and prizes won by their team. As the Chief Guest of the function, Prof P K Kalra, the Senior Director of Dayalbagh Educational Institute gave away the prizes to the winners. The event was blessed by the August Presence of Most Revered Prof. Prem Saran Satsangi Sahab, Chairman of the Advisory Committee on Education (serving as a Think Tank for Dayalbagh Educational Institutions). The Grace was felt by both organizers and participants alike.

# Socio-Cultural Program on the Purv of Lohri@DEI: DEI commemorated the spirit of Lohri and Makar Sankranti in the International Year of Camelids 2024

On January 13, 2024, the vibrant community of students and staff at the Institute came together for a captivating socio-cultural extravaganza. Set against the picturesque backdrop of Camel Point, adjacent to the DEI Stadium (located in front of the Faculty of Engineering) and the Community Agroecologycum-Precision Farming Fields, this



event promised an immersive experience like no other. All the invitees and participants immersed in a tapestry of traditions as students from DEI Institutions, alongside the Dynamic Sant-Supermen children, showcased a kaleidoscope of performances. From lively folk dances to melodious songs and captivating classical fusions, each act was a celebration of our rich regional heritage and the profound significance of Lohri and Makar Sankranti in the realm of agriculture. Adding Divinity to the grandeur of the occasion, we were supremely blessed to welcome the Distinguished Presence of Most Revered Prof. Prem Saran Satsangi Sahab, Chairman of the Advisory Committee on Education, Dayalbagh Educational Institutions and Most Respected Rani Sahiba ji at the Dayalbagh Agroecology-cum-Precision Farming Fields.

# **ALUMNI CONNECT 2024**

The Dayalbagh Educational Institute (DEI) celebrated Alumni Connect 2024 on February 10, 2024. During the gathering, former students of DEI reaffirmed their dedication to the revitalization and purification of the Yamuna River. As widely acknowledged, Dayalbagh has been spearheading a campaign to cleanse and rejuvenate the Yamuna River at Vaikunth Dham Poiyah Ghat for nearly 10 months. This initiative has metamorphosed



Vaikunth Dham into a scenic locale, drawing throngs of visitors from Agra city during morning and evening hours.

Notably, alumni who participated in Alumni Connect the 2024 enthusiastically contributed to this noble cause. A noteworthy aspect of the event was the utilization of individual intellectual prowess and inner strength, fostering holistic development of both physical and mental faculties. Throughout the proceedings. Prof. Prem Saran Satsangi, Chairman of the Advisory



Committee on Education at Dayalbagh Educational Institution, graced the occasion with his presence, bestowing boundless grace and benevolence upon all attendees. Several distinguished former students, both men and women, reminisced about their experiences at the Institute, lauding the quality of education and the nurturing lifestyle fostered by DEI. Mrs. Satyavati Satsangi ji, in particular, expressed profound admiration for the educational framework and pedagogy at Dayalbagh, emphasizing the institution's unparalleled commitment to fostering comprehensive student development. Padmashri Dr. Radhey Shyam Parikh, a renowned homeopath, attributed all his life accomplishments to the education he received at DEI, starting from his primary education at R. E. I. Intermediate College, Dayalbagh. He highlighted the profound impact of the spiritual and religious ambiance cultivated by the religious mentors of Dayalbagh on his personal and professional journey. Similarly, Prof. Deepak Kumar Srivastava, Vice Chairman of the UGC, conveyed his profound gratitude for his association with DEI, echoing sentiments of indebtedness shared by many others. Dr. Arsh Dheer echoed these sentiments, emphasizing that educational experiences akin to those provided by DEI are unparalleled elsewhere.

Numerous other notable former students also shared their perspectives, which are currently being compiled for upload to the DEI website. Notable attendees such as Venkatesh Sarvasiddhi, Managing Director of Springer Nature and former student of DEI; Dr. Apoorv Narayan, Assistant Professor at The University of Western Ontario, Canada, and former student of DEI; and Prof. P.K. Kalra, Senior professor, IIT Delhi along with Mr. Saran Prasad, Managing Director of Accenture, India, graced the event and contributed their reflections on the Institute. The program concluded with a vibrant cultural presentation by DEI students, culminating in the rendition of the university song.

## Delegation of Mizan Knowledge for Change (K4C) Hub Visits Dayalbagh

A group of delegates from Mizan Knowledge for Change (K4C) Hub, Universiti Sains Islam Malaysia (USIM) visited the Dayalbagh (K4C) Hub, Dayalbagh Educational Institute (Deemed to be University), Dayalbagh, Agra-282005 on 21 February 2024. The Mizan K4C Hub at USIM is responsible for coordinating the UNESCO Knowledge for Change (K4C) and Community-Based Participatory Research (CBPR) Mentor Training Program (MTP) in the Asia Region. The delegates included Dr. Mahazan Abdul Mutalib, the Regional Coordinator (Asia) for the UNESCO (K4C) Global Consortium and Assistant Vice-Chancellor (Strategic Planning and Corporate Communication) at USIM. The other three delegates were Dr. Jadzreill Jaafar and Dr. Hazila Kamaruddin, from the International Youth Centre (IYC), Malaysia and Ms. Ruchika Rai, the Coordinator of Knowledge for Change (K4C) Global Consortium, Participatory Research in Asia (PRIA), based in New Delhi.

The aim of the visiting delegates was to witness as well as exchange ideas on Dayalbagh Educational Institute's community engagement initiatives. They visited Agroecology-cum-precision Farming Fields, Dairy, Site of rejuvenation and restoration of river Yamuna at Baikunth Dham, School of Education, Handicraft Technical Training cum Incubation Centre and also learnt about Life-long Learning and Extension Activities, Self-help Groups, socio-political sensitization in rural communities, etc.

A fruitful hybrid mode interaction regarding community involvement initiatives of DEI, and plans and opportunities for community-based participatory research was held. The delegates were also apprised of the work being done under the Unnat Bharat Abhiyan, the Free Integrated Medical and Rural Assistance Camps, the uplift of tribal and rural people in Rajaborai, Madhya Pradesh, and the formal school system for underprivileged and rural children. Prof. Jyoti Gogia, Coordinator, Dayalbagh (K4C) Hub, DEI, Prof. Rupali Satsangi, and Dr. Sona Dixit, Mentors, Dayalbagh (K4C) Hub, DEI organized the visit.



Visit of the delegates from the University of Glasgow, Scotland, UK

On April 21, 2024, Mrs. Helen Martin, Dr. Joyce Nicholson, and Ms. Janette Devlin from the School of Education, at the University of Glasgow in Scotland, UK led a team of 17 people to visit the esteemed Dayalbagh Educational Institute (Deemed to be University) in Agra. The University of Glasgow is widely recognized as one of the top 100 universities in the world according to both QS World University Rankings and Times Higher Education World University Rankings. Additionally, it has been ranked as one of the top 20 universities in the world for sustainability as per QS Sustainability Ranking 2023. Ms. Shruti Priya, the program officer, and Mr. C. S. Joshi, Manager of Facilities, and knowledge management for Participatory Research in Asia (PRIA), New Delhi, were accompanying the group.

The team visited to the Free Integrated Medical and Rural Assistance Camp held every Sunday. The camp offers services to underprivileged individuals residing in the neighbouring rural community. The dedicated staff, students, and doctors of Dayalbagh Educational Institute (DEI) and the Dayalbagh Community work together to ensure that the beneficiaries receive the best care possible. The team witnessed the various multi-specialty medical facilities being provided to the rural community. They had the opportunity to interact with physicians, radiologists, eye specialists, child specialists, physiotherapists, gynaecologists, and surgeons who were offering their services free of cost. Patients were also given free medicines.

Additionally, they expressed admiration for the Hole-in-the-wall program's efforts in equipping children with fundamental computer skills in line with the government's digitalization initiative. The program also provides English language training to improve communication abilities, as well as engaging in recreational activities that boost physical and cognitive development through play-based learning. Nutritious meals and milk are supplied to the children to support their overall health, while counselling sessions promote healthy eating habits and hygiene. Observing the locals engaging in daily exercise and cultural pastimes further impressed them with the program's commitment to fostering both physical and mental well-being.

The Rural Assistance Centre is dedicated to offering practical solutions to fundamental challenges faced by farmers, dairy workers, and individuals seeking sanitation and power. Education and career guidance were also being provided to help individuals develop their economic prospects. Additionally, they viewed vocational training opportunities for women and girls, including courses in sewing, textile printing, soft toy creation, and food processing and preservation.

One of the highlights of their visit to Dayalbagh Educational Institute was experiencing the vibrant and disciplined community life and work ethic. The Institute's impressive infrastructure, which includes agriculture, education, and industry, serves as the foundation for impactful social work in the surrounding villages, all while preserving the rich traditions of Indian culture. During their visit, they had the opportunity to speak with the Institute's Director, Prof. C. Patvardhan, and gain insight into the various community development initiatives that the Institute is involved in.The visit was organized by Prof. Jyoti Gogia, Coordinator, Dayalbagh Knowledge for Change (K4C) Hub, Prof. Rupali Satsangi, and Dr. Sona Dixit, Mentors, Dayalbagh (K4C) Hub. Dr. Suneshwar Prasad, NSS Coordinator contributed significantly to organizing the visit.



'Amrit Kaal Vimarsh', A Development Dialogue Held with DEI Students

On March 5, 2024, the Universal Human Values Cell at Dayalbagh Educational Institute organized a Development Dialogue titled 'Unheard Voices and Social Development in the Indian Context' under the Amrit Kaal Vimarsh Initiative, aligned with Viksit Bharat @2047. Dr. Ishwar Swaroop Sahay, Assistant Professor at DEI, spoke on transforming India into a developed nation by 2047, emphasizing the youth's role in this mission. The event saw active participation from 180 students across various faculties. Prof. K. Santi Swarup and Dr. Rohit Rajvanshi also addressed the students, and Dr. Sona Dixit convened the session.

### Sanskrit in Focus: i-c-n-c-TALL's Global Collaborative Learning Session

On July 11, 2023, the iNFORMATION-cOMMUNICATIONnEURO-cOGNITIVE Technologies Assisted Language Lab (i-c-n-c-TALL) organized a session on "Interaction in Devbhasha Sanskrit" with a delegation from North America and DEI students. Over 40 learners participated, beginning with the Institute Prayer in Sanskrit. Dr. Bani Dayal Dhir presented the initiatives of i-c-n-c-TALL in promoting Sanskrit, while Dr. Madhulika Nemani discussed efforts in North America. Prof. Meera Sharma motivated attendees to learn Sanskrit, and the session was facilitated by Prof. Sharma, Dr. Dhir, and Dr. Shobha Bharadwaj. (i-c-n-c-) TALL also organized a Ten-day Summer Workshop on Spoken Sanskrit for the students of





DEI Prem Vidyalaya Girls' Inter College from June 7 to 16, 2023. Students were taught nuances of Sanskrit language with practical sessions in conversation in Sanskrit. Dr. Bani Dayal Dhir, Coordinator (i-c-n-c-) TALL, apprised the participants of Sanskrit learning software and other digital tools available at Workshop was TALL. The successfully conducted by Prof. Meera Sharma and Dr. Shobha Bhardwaj of Department of Sanskrit, DEI.



A Crash Course on Spoken English was organized for class XI and XII students of DEI Prem Vidyalaya Girls' Inter College and REI Inter College from May 22 to June 6, 2023. Some students of Technical College First- year also joined. The Course was conducted with the active support of (i-c-n-c-) TALL where interactive sessions were held. Students participating in the Course used the Wordsworth Language System to practise various English language structures. The software is extremely interactive, helping students to identify their mistakes and improve. The Course was made even more interesting through audio-visuals like Screening of Films, Episodes

from Discovery Channel, etc. The performance of the students was evaluated, and the sessions held at the lab went a long way in making the Course a success.

**Celebration of the Birth Anniversary of Gurudeva Rabindranath Tagore** 



On 7th May 2023, the 162nd birthday of Gurudeva Rabindranath Tagore was celebrated by the Centre for Art, Beauty, and Creativity at the 'Anupam Upvan' Campus of DEI. The event was inaugurated by Prof. Prem Kumar Kalra, Director of DEI. Prof. Gopalji Pradhan from Ambedkar University, Delhi, delivered the main lecture on Tagore's educational philosophy, emphasizing his belief in a boundary-less form of education. The Chief Guest, Mr. Anand Kumar, City Magistrate of Agra, endorsed Tagore's education policy as the key to achieving the true goal of education.

The event included a Yoga and Meditation camp led by Mrs. Sangeeta Sinha, followed by shramdaan (community service) and a pledge to preserve nature. Cultural performances, including Rabindra Sangeet, folk music, and street plays, were presented by students. The program was coordinated by Dr. Premshankar, with Prof. Lovely Sharma as the convener.

**International Yoga Day Celebrated at the Institute** 

On 21st June 2024, International Yoga Day was celebrated at DEI with great enthusiasm.



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# Visitors Remarks

Wonderful visit looking forward to our collaboration in future.

i. Indrajeet Chaubey, University of Connecticut

Great to see the research and student projects. Look forward to working together in future.

ii. Bernie Engel, Purdue University, USA

The Grace of spiritual leader resides in every soul. Keep up the simplicity and inculcate outlook of serving global humankind forever.

iii. Dharmendra Saraswat, Purdue University, USA

Inspiring. I Hope Dayalbagh Educational Policy is the policy of the world. Thanks

iv. Mahazan Mutalib, Mizan, Malaysia

Mind Blowing, Amazing, Great Works!

v. Jadzreill Jaafan, International Youth Centre, Kualalumpur

**Annexure-I** 

#### **RULE:11**

# BOARD OF MANAGEMENT (GOVERNING BODY) LIST OF MEMBERS

### **TERM: 2023-2026** Total Members: 14 Quorum: Eight (As on 1-7-2023)

#### Name of the Member **Status of Nomination** (a) 1. Director Professor C. Patvardhan (Ex-officio) Director deidirector@gmail.com Dayalbagh Educational Institute Dayalbagh, Agra-282 005 (b) 2. Treasurer Smt. Sneh Bijlani (Ex-officio) Treasurer sneh.bijlani@gmail.com **Davalbagh Educational Institute** Dayalbagh, Agra-282 005 (c) 3. Two Deans from amongst the Deans of Prof. Bandana Gaur the Faculties of the Institute by Dean, Faculty of Social Sciences rotation in alphabetical order of the Dayalbagh Educational Institute names of the Faculties. (Ex-officio) Dayalbagh, Agra-282 005 (Term-One year:2023-24) (Social Sciences & Arts) Prof. Sangita Saini (M-9837005293) Dean, Faculty of Arts bandanagaurdei@gmail.com **Dayalbagh Educational Institute** -do-Dayalbagh, Agra-282 005 (M-9897289879) 4. sangitasaini@gmail.com (d) One nominee of the Ministry of 5. Dr. (Prof.) B.R. Kukreti Education, Govt. of India. Mahatama Jyotiba Phulae (w.e.f. 3.3.2021) Rohilkhand University, Mob.- 9412604920 C-46/47, Neelkanth Suresh Sharma Email-kukretibr77@gmail.com Nagar, Bareilly- 243006 Uttar Pradesh Director, Director (e) 6. Higher Education, Higher Education, U.P. Uttar Pradesh **Directorate of Higher Education** (Ex-officio) Post Bag No.005 0532-2623874, 2423919 (Fax) PRAYAG RAJ-211 001 Phone:9412582038 Email: infodheup21@gmail.com (f) 7. One nominee of the Academic Council Prof. C. Patvardhan of the Institute from among its Head, Department of Electrical members as specified in Rule 13(c) **Engineering &** and (d).( Res. Term: 2021-2024) (w.e.f. Dean, Faculty of Engineering

1.7.2022) (M-8979361848) cpatvardhan@gmail.com

8.	One nominee of the Radhasoami
	Satsang Sabha, Dayalbagh, Agra
	[e-mail:
	prakashswarup.db@gmail.com]
	(M-9810346171) (w.e.f. 1.7.2023)
	8.

 (h) 9. One nominee of the Managing Committee of the Radhasoami Educational Institute of Agra, Dayalbagh, Agra (Mob.: 9425323538) (E-mail: gs.solanki53@gmail.com)

 (i) 10. One representative each of Industry and Agriculture of Dayalbagh, to be nominated by the President of the Institute. Mob. 09810029790 (E-mail: rksinha@gmail.com )

11.

13.

14.

-do-(M-9837308578) bhojwani1940@gmail.com

 (j) 12. Three persons, not being members or employees of the Institute to be nominated by the President of the Institute from amongst eminent educationists and technologists Mob. 9810153341 (E-mail: pami.dua@gmail.com)

-do-(M-9219500838)

dec.dei@gmail.com

--do-(M-9451000575) (email: kayasthabhu@gmail.com) (Res. Term: 2023-26) Dayalbagh Educational Institute Dayalbagh, Agra-5

Shri Prakash Swarup Satsangi Administrator (ICT) Radhasoami Satsang Sabha Dayalbagh, Agra

Justice Gulab Singh Solanki 179, Rani Bagh (Main) Khandwa Road, Indore-452020 (M.P.)

Shri Ravi Kumar Sinha B-2/6, (Ground Floor) Vasant Vihar NEW DELHI-110 057

Prof. S.S. Bhojwani 3/43, Prem Nagar Dayalbagh, Agra-282 005

Professor Pami Dua C-58, Soami Nagar New Delhi-110017

Professor V.B. Gupta

3/173, Prem Nagar Dayalbagh, Agra-282 005 Professor Arvind Mohan Kayastha

Senior Professor School of Biotechnology Banaras Hindu University Varanasi-221005

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# **Rule: 16**

#### **FINANCE COMMITTEE - LIST OF MEMBERS TERM: 2023-2026 Total Members: 6 Quorum: Three (As on 1-7-2023)** Name of the Member **Status of Nomination** Professor C. Patvardhan (a) 1. Director Director (Ex-officio) Dayalbagh Educational Institute Dayalbagh, Agra-282 005 (b) 2. Treasurer Smt. Sneh Bijlani (Ex-officio) Treasurer Dayalbagh Educational Institute Dayalbagh, Agra-282 005 (c) 3. One nominee of Shri Liyakat Ali the Department Additional Director (Treasuries) of Finance. Agra Mandal U.P. Government. Opp. D.M. Office Near Imperial Hotel, Agra Phone: 2420543 (0) From: March, 2019 Mob.: 9415028408 (e-mail: adagr@nic.in) (d) 4. Two nominees of Prof. Nandita Satsangee the Governing Body, Dean. one of which shall Faculty of Education be a Dean [(GBR-6(c) Dayalbagh Educational Institute dated 21-4-2023] Dayalbagh, Agra (w.e.f. 1.7.2023) 5. -do-Mrs. Dayal Ray (e-mail id:dayalray@gmail.com) Chief Administrative office (Retd.), (Mob.) 9968283455 Ministry of Defence C 6012, Sector C, Pocket 6, Vasant Kunj, New Delhi-110070 (e) 6 One Nominee of the Ministry of Shri Sanjog Kapoor Education Joint Secretary & Financial Advisor Tel: 011-23382696 Ministry of Education Email: jsfa-moe@gov.in Shastri Bhawan

New Delhi-110001

# **RULE : 19**

### List of Members

# Managing Council for the Non-University General Educational Institutions <u>TERM: 2022-2025</u> Total Members: 19 Quorum: Six (As on 1-7-2023)

	Status of Nomination		Name of the Member
(a)	1.	Director (Ex-officio)	Professor C. Patvardhan Director Dayalbagh Educational Institute Dayalbagh, Agra-282 005
(b)	2.	Treasurer (Ex-officio)	Smt Sneh Bijlani Treasurer Dayalbagh Educational Institute Dayalbagh, Agra-282 005
(c)	3.	Principals of Non-Univ. General Educational Institutions(NUGEI) (Ex-officio) (M-9720040985)	Dr.(Ms) Mala Bal Principal DEI P.V. Girls Intermediate College Dayalbagh, Agra-282 005
	4.	-do- (w.e.f. 1.4.2018) (M-9412320648)	Dr. Anil Kumar Dwivedi Officiating Principal REI Intermediate College Dayalbagh, Agra-282005
	5.	-do- (M- 9425973589)	Sh. D.S. Kapoor Principal, Radhasoami Adivasi Higher Secondary School, C/o Manager Rajaborari Estate TIMARNI Distt HARDA (MP)-461228
	6.	-do- (mail id:snppschool@dei.ac.in)	Ms. Beenu Kapoor Principal Soami Nagar Pre-Primary School C-33,Second Floor, Soami Nagar (North) New Delhi-110017
	7.	-do- (Mob. 9810282419) (email: arti.snms@gmail.com)	Mrs. Arti Prasad Principal Soami Nagar Model School Soami Nagar (North) New Delhi-110017

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	8.	Principals of Non-Univ. General Educational Institutions (NUGEI) (Ex-Officio) 7830507157 (Mob.) 9286542683 (Mob.) (tiwariusha1959@gmail.com)	Ms. Usha Tiwari Principal Roorkee Model School S-3, Handloom Industry, Dayalbagh Colony, Ganeshpur (Near Railway Station) ROORKEE-247 667
(d)	9.	One teacher from each of the NUGEI by rotation in order of seniority (Term-One year) (2022-2023)	Ms. Akansha Rani Assistant Teacher DEI P.V. Girls Intermediate College Dayalbagh, Agra-282 005
	10	-do- (2022-23)	Shri Vikram Singh Lecturer REI Intermediate College Dayalbagh, Agra-282 005
	11	-do- (2022-23)	Ms. Subhadra Kumari Teacher Soami Nagar Model School Soami Nagar (North) NEW DELHI-110017
	12.	-do- (2022-23)	Shri Param Yadav Teacher, Radhasoami Adivasi Higher Secondary School, C/o Manager Rajaborari Estate TIMARNI, Dist Harda (MP)461228
(e)	13.	Two nominees of the Governing Body from amongst its members [(GBR(by Cir.)-5(a) dated 5.3.2022)] (Mob.: 9425323538) (E-mail: gs.solanki53@gmail.com)	Justice Gulab Singh Solanki 179, Rani Bagh (Main) Khandwa Road, Indore- 452020 M.P.
	14.	-do- (M-9219500838)	Prof. V.B. Gupta 3/173, Prem Nagar Dayalbagh, AGRA-282 005
(f)	15.	Director, Secondary Education, Uttar Pradesh (Ex-officio) e-mail: decsecedu@gmail.com Phone: 0522-2239006 9454457216 (Mob.)	Director Secondary Education, Govt. of U.P. Directorate of Secondary Education 18, Park Road LUCKNOW-226001

# Dayalbagh Educational Institute (Deemed to be University), Agra | 235

(g)	16.	One nominee of Ministry of Education, Government of India. +91-11-23074199(0) +91-9911271412(M) (w.e.f. 16-3-2020)	Shri Sandeep Jain Under Secretary to the Govt. of India, Ministry of Education Dept. of Higher Education, Room No. 535 'C' Wing, Shahstri Bhawan NEW DELHI-110001
(h)	17.	One nominee of the Managing Committee of the REI, Dayalbagh, Agra (M-9837308578)	Prof. S.S. Bhojwani 3/43, Prem Nagar Dayalbagh, Agra-282 005
(i)	18.	One nominee of the DEI Prem Vidyalaya Society, Dayalbagh, Agra.	NIL
(j)	19.	One nominee of the DEI Higher Secondary School Society, Dayalbagh, Agra.	NIL (Society Merged with MCREI)
(k)	20.	Two persons not being members or employees of the Institute including non-university educational institutions to be nominated by the President of the Institute from amongst eminent educationists and technologists.	Professor Asha Sinha (Ex-Professor of Home Science) 3/52, Prem Nagar, Dayalbagh, Agra-282005
	21.	-do- (M-9319211231) (Mail id: rajaborariestate@gmail.com) (w.e.f. July, 2022)	Prof. (Retd.) Vishal Sahni Manager Rajaborari Estate Timarni, Distt. Harda-461 228 (M.P.)
			Invitee Ms. Jayati Mathur Coordinator DEI Primary Section, Dayalbagh, Agra

# **RULE : 18**

# **List of Members**

# Managing Council for the Non-University Technical Educational Institutions <u>TERM: 2022-2025 Total Members: 11 Quorum: Six (As on 1-JUL-2023)</u>

	Statu	s of Nomination	Name of Member
(a)	1.	Director (Ex-officio)	Professor C. Patvardhan Director Dayalbagh Educational Institute Dayalbagh, Agra-282 005
(b)	2.	Treasurer (Ex-officio)	Smt. Sneh Bijlani Treasurer Dayalbagh Educational Institute Dayalbagh, Agra-282 005
(c)	3.	Principals of the Non- University Technical Educational Institutions (NUTEI) (Ex-officio) (w.e.f. 1.7.2018) (M- 7300796689)	Shri Vijay Prakash Malhotra Principal DEI Technical College Dayalbagh, Agra-282 005
(d)	4.	One teacher from each of the NUTEI not below the rank of lecturer by rotation in order of seniority (Term-One year) 2022-2023	Shri Bhuvnesh Singhal Lecturer DEI Technical College Dayalbagh, Agra-282 005
(e)	5.	Two nominees of the Governing Body from amongst its members [GBR(by Cir.)-5(b) dated 5.3.2022)] (M-9219500838)	Prof V.B. Gupta 3/173, Prem Nagar Dayalbagh, Agra-282 005
	6.	-do- (Mob. 09810029790) E-mail:rksinha@gmail.com	Shri Ravi Kumar Sinha B-2/6, (Ground Floor) Vasant Vihar NEW DELHI-110 057
(f)	7.	Director, Technical Education, Uttar Pradesh. (Ex-officio) 0512-2582084 (O) (M) 9455004693 Email: directordteup@gmail.com	Director Technical Education Directorate of Technical Education, U.P. Near Gurdeo Palace Cinema Hall Zoo Road KANPUR-208 002

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(g)	8.	One nominee of the Northern Regional Office of the All India Council for Technical Education. Ph: 2292550 22929551 2550122 Fax: 0512-2214492 Email: nro@aicte-india.org	Regional Officer, NRO All India Council for Technical Education Behind Govt. Polytechnic Near Gurudeo Palace Cinema Hall Zoo Road, Vikas Nagar KANPUR-208 002
(h)	9.	One nominee of the Managing Committee of the Radhasoami Educational Institute of Agra, Dayalbagh, Agra(M-9319205577) (dayalmotors@dayalmotors.com)	Shri P. P. Dhir 4/101-102 Vidyut Nagar Dayalbagh, Agra-282 005
(i)	10.	Two persons, not being members or employees of the Institute including non-university educational institutions to be nominated by the President of the Institute from amongst eminent educationists and technologists. (M-9997958655)	Shri Jamuna Prasad 117, Jairam Bagh, Dayalbagh, Agra-282 005
	11.	-do- Phone: Res.: (011) 21738494 (Mob. 8057108482) e-mail: vpswarup@gmail.com	Shri V. Prem Swarup 3, Dayal Nagar Dayalbagh, Agra

# RULE:13

# ACADEMIC COUNCIL - LIST OF MEMBERS

# <u>TERM: 2023-2026 Total Members: 58 Quorum: Ten (As on 1-7-2023)</u>

<u>TER</u>	<u>M: 2(</u>	023-2026 Total Members: 58	Quorum: Ten (As on 1-7-2023)
	Stat	cus of Nomination	Name of the member
(a)	1.	Director (Ex-officio)	Professor C. Patvardhan Director Dayalbagh Educational Institute Dayalbagh, Agra-282 005
(b)	2.	Deans of Faculties (Ex-officio) (1.7.2023 to 30.6.2026) (Mob-9897289879)	Prof. Sangita Saini Dean, Faculty of Arts Dayalbagh Educational Institute Dayalbagh, Agra-282 005
	3.	-do- (01-07-2022 to 30-06-2025) (Mob-9456091349)	Prof. V. K. Gangal Dean, Faculty of Commerce Dayalbagh Educational Institute Dayalbagh, Agra-282 005
	4.	-do- (w.e.f. 10.10.2021) (Mob-9557327953)	Prof. Nandita Satsangee Dean, Faculty of Education Dayalbagh Educational Institute Dayalbagh, Agra-282 005
	5.	-do- (w.e.f. 24-1-2023) (M-8979361848)	Prof. C. Patvardhan Dean, Faculty of Engineering Dayalbagh Educational Institute Dayalbagh, Agra-282 005
	6.	-(w.e.f. 15.11.2023) (M-9045047485)	Dr. S.K. Soni Dean, Faculty of Science Dayalbagh Educational Institute Dayalbagh, Agra-282 005
	7.	-do- (w.e.f. 6.4.2022) (Mob-9837005293)	Prof. Bandana Gaur Dean, Faculty of Social Sciences Dayalbagh Educational Institute Dayalbagh, Agra-282 005
	8.	-do- (from 1.7.2023 to 30.6.2024) (Mob-)	Shri D. Sumir Dean, DEI ICT Centre Rajaborari-Tmarni
	9.	Deans of Faculties (Ex-officio) (from 1.7.2022 to 30.6.2024) (Mob-9760104037) -do- (from 1.7.2022 to 30.6.2024) (Mob-9319053512)	Members: 58 Quorum: Ten (As on 1-July- 2023) Prof. Gur Saran Dean, DEI ICT Centre Soami Nagar, New Delhi Prof. J.K. Verma Dean, DEI ICT Centre Murar

Prof. C. Patvardhan

- 10. -do-(from 1.7.2022 to 30.6.2024)
- 11. -do-(from 1.7.2023 to 30.6.2024)

(For a period of one year)

(w.e.f. 1.1.2022 to 30.6.2024)

(w.e.f. 1.1.2022 to 30.6.2024)

(w.e.f. 1.1.2022 to 30.6.2024)

faculties, who are not Deans.

Heads/Incharges of all the teaching

the university

(up to 30.6.2023) (Mob-9639490081)

(Mob-9897347581)

(Mob-9411403166)

(Mob-7599048457)

departments in

(Till Sept. 2023)

(w.e.f. 22.7.2021)

(Mob-8958637693)

(Mob-98755441296)

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-do-

(Mob-)

(c)

-do-

-do-

-do-

-do-

- Dean, DEI ICT Centre, MTV Puram
- Prof. Rahul Caprihan Dean, DEI ICT Centre, C/O Sir Sahabji Maharaj Dayalbagh Spinning & Weaving Mill Putligarh Chowk Amritsar-143001

Dr. Rajiv Ranjan Dean, Agriculture (Outreach) Dayalbagh Educational Institute Dayalbagh, Agra

Prof. K. Santi Swarup Dean, Student Affairs Dayalbagh Educational Institute Dayalbagh, Agra

Prof. K. S. Daya Dean, DEI Planning Dayalbagh Educational Institute Dayalbagh, Agra

Prof. Sona Ahuja Dean, Non-University Edu. Inst. Dayalbagh Educational Institute Dayalbagh, Agra

Prof. Agam Kulshrestha Head, Deptt. of Sanskrit Faculty of Arts Dayalbagh Educational Institute Dayalbagh, Agra-282 005

Dr. Meenakshi Thakur Head, Deptt. of Drawing & Painting Faculty of Arts Dayalbagh Educational Institute Dayalbagh, Agra-282 005

- Prof. Sharmila Saxena Head, Deptt. of Hindi Faculty of Arts Dayalbagh Educational Institute Dayalbagh, Agra-282 005
- -do-(Mob-9319053512) -do-(do-(w.e.f. 17.11.2022) Prof. J. K. Verma Head, Deptt. of English Faculty of Arts Dayalbagh Educational Institute Dayalbagh, Agra-282 005 Prof. Lovely Sharma Head, Department of Music

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	(M- 9411961644)	Faculty of Arts Dayalbagh Educational Institute Dayalbagh, Agra-282 005
22.	-do- (Mob-9412261810)	Prof. Pramod Kumar Head, Deptt. of Accountancy & Law Faculty of Commerce Dayalbagh Educational Institute Dayalbagh, Agra-282 005
23.	Heads/Incharges of all the teaching departments in the university faculties, who are not Deans) (Mob-9897190216)	Professor Savita Srivastava Head/Coordinator, B.Ed. Programme Faculty of Education, Dayalbagh Educational Institute, Dayalbagh, Agra-282 005
24.	-do- (Mob-9412812183)	Professor N.P.S. Chandel Head/Coordinator, M.Ed. Programme Faculty of Education, Dayalbagh Educational Institute, Dayalbagh, Agra-282 005
25.	-do- (w.e.f. 4.1.2023) (Mob-9412509324)	Prof. Sanjay Kumar Srivastava Head, Deptt. of Civil Engineering Faculty of Engineering Dayalbagh Educational Institute Dayalbagh, Agra-282 005
26.	-do- (Mob-9997521207)	Prof. Rahul Caprihan Head, Deptt. of Mech. Engineering Faculty of Engineering Dayalbagh Educational Institute Dayalbagh, Agra-282 005
27.	-do- (Mob-9456433788)	Prof. D.K. Chaturvedi Head/Coordinator, Deptt. of Footwear Design, Faculty of Engineering Dayalbagh Educational Institute Dayalbagh, Agra-282 005
28.	(w.e.f. 12.10.21) (Mob-9997592600)	Professor Sukhdev Roy Head, Deptt. of Physics & Computer Science, Faculty of Science, Dayalbagh Educational Institute, Dayalbagh, Agra-282 005
29.	-do- (w.ef. 10.12.2022) (M-9045047485)	Dr. S.K. Soni Head, Deptt. of Botany Faculty of Science Dayalbagh Educational Institute Dayalbagh, Agra-282 005
30.	Heads/Incharges of all the teaching departments in the university faculties, who are not Deans. (w.e.f. 27.3.22) (Mob-9897628097)	Professor Rohit Shrivastav Head, Deptt. of Chemistry Faculty of Science Dayalbagh Educational Institute Dayalbagh, Agra-282 005

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31	do- (Mob-9897269797)	Prof. Gunjan Agrawal, Head, Deptt. of Mathematics Faculty of Science Dayalbagh Educational Institute Dayalbagh, Agra-282 005
32	do- (M-9412442881)	Prof. Sangeeta Kumar Head, Deptt. of Economics Faculty of Social Sciences Dayalbagh Educational Institute Dayalbagh, Agra-282 005
33	do- (From 27.12.2013) (Mob-9557604249)	Prof. Sanjeev Swami Head, Deptt. of Management Faculty of Social Sciences Dayalbagh Educational Institute Dayalbagh, Agra-282 005
34	do- (Mob-9456021345)	Prof. Kamaljeet Sandhu Head, Deptt. of Psychology Faculty of Social Sciences Dayalbagh Educational Institute Dayalbagh, Agra-282 005
35	do- (Mob-7895599082)	Ms. Mallica Caprihan Head/Coordinator, School of Architecture & Planning Dayalbagh Educational Institute Dayalbagh, Agra-282 005
36	do- (Mob-9665623994)	Dr. Prashant Suresh Chavan Principal, AYUSH Dayalbagh Educational Institute Dayalbagh, Agra-282 005
(d) 37	. One member of the teaching staff, not below the rank of lecturer and not covered by clauses (b) and (c) above from each Faculty in order of seniority by rotation. (Term- One year: 2023-24)(Mob-9997952321)	Dr. Seema Kashyap Department of Home Science Faculty of Arts Dayalbagh Educational Institute Dayalbagh, Agra-282 005
38	do- (Term- One year: 2023-24) (M-9634584948)	Prof. Nidhi Sharma Dept. of Accountancy & Law Faculty of Commerce Dayalbagh Educational Institute Dayalbagh, Agra-282 005
39	do- (Term- One year: 2023-24) (M-9412560651)	Prof. Meenu Singh Faculty of Education Dayalbagh Educational Institute Dayalbagh, Agra-282 005

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40.	-do- (Term- One year: 2023-24) (M-9412894687)	Shri Atul Suri Dept. of Mechanical Engineering Faculty of Engineering Dayalbagh Educational Institute Dayalbagh, Agra-282 005
41.	-do- (Term- One year: 2023-24) (M-8979193337)	Prof. Shabad Preet Dept. of Zoology Faculty of Science Dayalbagh Educational Institute Dayalbagh, Agra-282 005
42.	-do- (Term- One year: 2023-24) (M-9045655672)	Ms. Surat Pyari Department of Management Faculty of Social Sciences Dayalbagh Educational Institute Dayalbagh, Agra-282 005
43.	The Coordinator Distance Education Cell (M-9219500838)	Prof. V.B. Gupta Distance Education Cell Dayalbagh Educational Institute Dayalbagh, Agra-282 005
44.	Principals of all the non-university educational institutions (w.e.f. 1.7.2018) (M- 7300796689)	Shri Vijay Prakash Malhotra Principal DEI Technical College Dayalbagh, Agra-282 005
45.	-do- (M-9720040985)	Dr.(Mrs.) Mala Bal DEI P.V. Girls' Intermediate College Dayalbagh, Agra-282 005
46.	-do- (w.e.f. 1.4.2018) (M-9412320648)	Dr. A.K. Dwivedi Officiating Principal, REI Intermediate College Dayalbagh, Agra-282 005
47.	Principals of all the non-university educational institutions (M- 9425973589)	Shri D.S. Kapoor Principal Radhasoami Adivasi Higher Secondary School C/o Manager Rajaborari Estate TIMARNI, Distt. : HARDA (MP)-461228
48.	-do- (email id: snppschool@dei.ac.in)	Ms. Beenu Kapoor Principal Soami Nagar Pre-Primary School C-33, Second Floor, Soami Nagar (North), NEW DELHI-110 017
49.	-do- (Mob. 9810282419)	Mrs. Arti Prasad Principal Soami Nagar Model School (Primary) Soami Nagar (North) NEW DELHI-110 017

(e)

(f)

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	50.	-do- 7830507157 (Mob.) 9286542683 (Mob.)	Principal Roorkee Model School 23B, Dayalbagh Colony Ganeshpur (Near Railway Station) ROORKEE-247 667
(g)	51.	The Director of Technical Education, Uttar Pradesh (Ex-officio) 0512-2582084 (O)	Director Technical Education Directorate of Technical Education, U.P., Near Gurdeo Palace Cinema Hall Zoo Road, KANPUR-208 002
(h)	52.	Two specialists in Industry, to be nominated by the Governing Body(GBR-6(a) dated 21-4-2023) Tel:(M) 9810212311 rajivsinha@gmail.com	Shri Rajiv Sinha A-14/14, Vasant Vihar New Delhi-110 057
	53.	-do- Phone +91-11-22751573 email: prempsri@gmail.com Mob. 09810055226	Shri P.P. Srivastava 3/174, Prem Nagar Dayalbagh Agra-282005
(i)	54.	Not more than five persons of eminence in the fields of Arts and Culture, Commerce, Education, Engineering and Science, to be nominated by the Governing Body (GBR-6 (b) dated 21-4-2023) (E-mail id:karmeshu@gmail.com)	Dr. Karmeshu Professor(Retd.) School of Computer & Systems Sciences, Jawaharlal Nehru University New Delhi
	55.	-do- Mob. 9810153341 pami.dua@gmail.com	Professor Pami Dua C-58, Soami Nagar NEW DELHI-110 017
	56.	-do- (w.e.f. 2.11.2019) Email: saran@cse.iitd.ac.in	Professor Hazur Saran Department of Computer Science & Engineering Indian Institute of Technology, Delhi Hauz Khas, New Delhi- 110 016
	57.	-do- (M-9997958655) (E-mail id: shashi.bala.malik14@gmail.com)	Dr. Shashi Bala Malik Advisor (Retd.) BSES Rajdhani Power Limited New Delhi
	58.	-do- pkalra@cse.iitd.ac.in mob. 9452831015 (pkkiitd@gmail.com)	Professor C. Patvardhan Department of Computer Science Indian Institute of Technology Hauz Khas New Delhi-110016
			Invitee Ms. Jayati Mathur Coordinator DEI Primary Section, Dayalbagh, Agra