

2022-2023

***ANNUAL REPORT***



***Dayalbagh Educational Institute  
(Deemed to be University)***

## TABLE OF CONTENTS

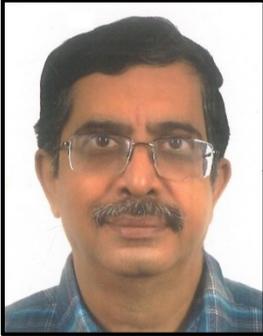
<i>Serial No.</i>	<i>Details</i>	<i>Page No.</i>
1.	<i>Director's Message</i>	
2.	<i>About the Institute</i>	1
3.	<i>Organizational Structure</i>	11
4.	<i>Administrative Report</i>	16
5.	<i>Institute Achievements</i>	20
6.	<i>Staff and Student Strength and Composition</i>	22
7.	<i>Institute's Finance</i>	28
8.	<i>Faculty of Arts</i>	30
9.	<i>Faculty of Commerce</i>	43
10.	<i>Faculty of Education</i>	49
11.	<i>Faculty of Engineering</i>	57
12.	<i>Faculty of Science</i>	75
13.	<i>Faculty of Social Science</i>	113
14.	<i>Schools and Colleges</i>	121
15.	<i>Seminars and Conferences</i>	124
16.	<i>Activities at DEI</i>	128
17.	<i>Visitors Remarks</i>	139
18.	<i>Annexure-I</i>	141



**DAYALBAGH EDUCATIONAL INSTITUTE**  
(DEEMED TO BE A UNIVERSITY)  
DAYALBAGH, AGRA 282 005, INDIA

**PROF. C. PATVARDHAN, DIRECTOR**

### **Director's Message**



*It is indeed a pleasant duty to present the Annual Report of Dayalbagh Educational Institute (Deemed to be University) for the year 2022-2023.*

*The society's understanding and definition of education depends on its definition and understanding of humankind – whether a human is regarded as a physical entity, a physical as well as mental entity or as a physical, mental and spiritual entity! In Dayalbagh, a person is regarded as an amalgamation of body, mind and spirit. This view immediately puts forward the elements that a quality education system must have in its quest to provide a balanced view of life with material pursuits being subsumed by higher intellectual and spiritual goals. Therefore, education in Dayalbagh has always been characterized by its distinctive flavour.*

*The DEI Education Policy enunciated in 1975 forms the bedrock of all the activities that are performed in DEI with the lofty objective of creating a Complete person. The Vision, Mission and developmental goals of Dayalbagh Educational Institute accordingly focus on both academic excellence and the mental and spiritual development of the individual. The Systems Approach followed in Dayalbagh ensures the fostering a lifestyle in which the emphasis is on solving problems that face society at large without creating new problems. That is the essence of sustainable development as envisaged by the UN. Doing more with less is the mantra while endeavouring to eliminate waste in all that is done. Thus, the Dayalbagh model is an example of a long-term self-evolving social experiment, based on simple and wise living, self-reliance, and frugal innovation.*

*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 students and faculty work diligently to foster an environment of continuous learning, innovation, and growth. The blended approach of education at DEI inculcates a strong sense of dignity of labour, self-discipline, multitasking and planning, and well-rounded approaches to problem-solving. 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 direct impact on both people and 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 World Health Organization and United Nations as well.*

---

**Office of The Director, Dayalbagh Educational Institute,  
Dayalbagh, Agra 282 005, India  
Phone: +91 562 280 1545; Email: [director@dei.ac.in](mailto:director@dei.ac.in)**

DEI has been carrying out a water conservation project under the sponsorship of the Department of Science and Technology where a filtration plant is helping in the distribution of potable water to the villages in the neighbouring vicinity. As an academic community, DEI have been contributing to sustainable development since 1917 and have taken up river bed upgrading activity which has been joined by our sponsoring community and the students right from infancy i.e. three weeks ago, as our Social-Responsibility to conserve and protect the mineral-rich soil of the river bed which also becomes an Avenue of active research for Sustaining & Substantiating the Agro-ecological initiatives taken up by DEI and Dayalbagh where we strictly follow Lactovegetarian and Teetotaler Conundrums of Dayalbagh ([edeiwww.education:Wikipedia.org](http://edeiwww.education:Wikipedia.org)).

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 to maintain 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. Children are trained in computer and language skills and provided food supplements. There is active participation of large number of student volunteers in these camps which gives them an experience of the real-world issues and how to tackle them.

This report highlights some prominent activities that have taken place in the session 2022-23. While it captures the data, the intangibles that make Dayalbagh Educational Institute unique and progress in them have to be experienced and seen in order to comprehend them fully.



**(Prof. C. Patvardhan)**

## About the Institute

*For over 100 years, the Dayalbagh Educational Institute has been sharing knowledge and cultivating the brightest minds. Today, we are one of the best Institutes in the country. The Dayalbagh Educational Institute is situated at DAYALBAGH, located on the northern outskirts of Agra, Uttar Pradesh at a distance of about two kilometres from the city. Dayalbagh is a self-contained colony well-known for its serene environment, secular establishments, like, the industries, the educational institutions, the agriculture farms, etc.*



### **Brief History**

*Soon after the Dayalbagh founded in 1915, the Radhasoami Satsang Sabha, in pursuance of the lofty ideal to evolve the superman of tomorrow, started the Radhasoami Educational Institute, as a co-educational Middle School, open to all, on January 1, 1917. Administered by a Managing Committee registered under the Societies Registration Act XXI of 1860, the Institute, since the very beginning, combined the pursuit of academic studies with sensibilities involving moral and spiritual values. From the modest beginning, the nucleus not only grew and broke the barriers, but, spawned new institutions, as per the needs of the society and the demands of the time. Within six months, it was raised to the level of a High School; Intermediate classes were started in 1922; it became a Degree College in 1947 with the introduction of B.Com. classes affiliated to Agra University; B.Ed. (B.T.) classes were added in 1951 and the first batch of B.Sc. students took their final examination in 1955. A Technical School, which later developed into a college, was started in 1927 for imparting training in Automobile, Electrical and Mechanical Engineering, leading to the award of diplomas in the concerned branches of Engineering affiliated to Board of Technical Education, U.P. The Leather Working School, which was started in 1930, gives instructions in both theory and practice for the*

manufacture of leather goods. To further the cause of women's education, Prem Vidyalaya, an Intermediate College for girls, was started in 1930. The Women's Training College was established in 1947 with B.A. and B.Ed. Programmes. Subsequently, in 1958, M.Ed., in 1969 M.A. (Psychology/English/Hindi) and in 1976, M.A. (Music) Programmes were started. It had made phenomenal progress to become one of the premier women's training colleges in the country. An Engineering College, affiliated to Agra University, for the award of degree of B.Sc. (Engineering) in Electrical and Mechanical Engineering branches, was started in 1950.

A significant development of far-reaching consequence, in the history of education at Dayalbagh, was the establishment of the DAYALBAGH EDUCATIONAL INSTITUTE as a registered body in 1973, which integrated and brought under one umbrella all the educational institutions of Dayalbagh, including the School of Comparative Study of Religions, the School of Languages and the School of Art and Culture. In 1975, the Dayalbagh Educational Institute formulated an innovative and comprehensive programme of undergraduate studies which received approbation from the Government of Uttar Pradesh and the University Grants Commission, as a result of which, in 1981, the Ministry of Education, Government of India, conferred the status of an institution Deemed to be University on the Dayalbagh Educational Institute, to implement its new and innovative schemes. The Institute has since been accorded the membership of the Association of Indian Universities.

From the session 1986-87, the DEI Technical College, a diploma level Engineering Institution, from the session 1995-96, the DEI Prem Vidyalaya Girls' Intermediate College, and from the session 2012-13, the REI Intermediate College (Boys) have also been brought under the academic and administrative control of the Institute. The Vocational courses were started in the year 1993. The Women's wing of Technical College – Women's Polytechnic was started in the year 2004, and in the same year, the Institute initiated a major programme of Distance Education to benefit students residing at urban-suburban interfaces. The vocational education programmes of DEI started in 2004. It foresaw many elements of the AICTE NVEQF and MHRD Community College schemes launched almost a decade later, and is an effort to effectively implement the following national missions for the Socio-Economic Development of the Country:

- The National Mission of Sarv 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

Presently the Institute comprises faculties of Arts, Commerce, Education, Engineering, Science, Social Sciences and AYUSH. In 2009, the Dayalbagh Educational Institute was placed in the category of first 38 Deemed to be Universities among 126 Deemed Universities reviewed by the Ministry of Human Resource Development (MHRD), Government of India and was adjudged to be at the 8th rank among the 126 Deemed Universities. Also, a Pt. Deen Dayal Upadhyay Kaushal Kendra was sanctioned to DEI by MHRD to offer B.Voc., M.Voc. and PhD degrees in vocational training and skilling. In 2019, the National Assessment & Accreditation Council (NAAC) assessed the Institute and placed it in the category of amongst 'A+' Grade Universities. The Institute has also been included in the list of Deemed to be Universities under section 12B of the UGC Act, 1956. The University has also been awarded the ISO 21001: 2018 Certification. The Institute also figures in top NIRF Ranking declared by Ministry of Human Resources and Development,

2023, in the Category of University and in the Category of Engineering. Electrical Engineering and Mechanical Engineering programmes of the Faculty of Engineering have been accredited by National Board of Accreditation (NBA), which is valid till 30.6.2025. The Institute is open to all irrespective of caste, creed, race, religion, economic position or social status.

## **Vision and Mission**

### **A leading teaching-cum-research Institute with focus on Entrepreneurial Education and Consciousness Studies**

A model Deemed to be University that believes in excellence with social relevance 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 (quantum jugaad) innovation technology founded firmly on DEI's Education Policy-1975. 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 heralded many features that have later been incorporated in the Nation's Education Policy (NEP) and programs and subsequently it has embarked upon its vision 2031. DEI has been a visionary and forerunner in adopting innovative schemes in the field of education.

## **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 techno-oriented 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'.

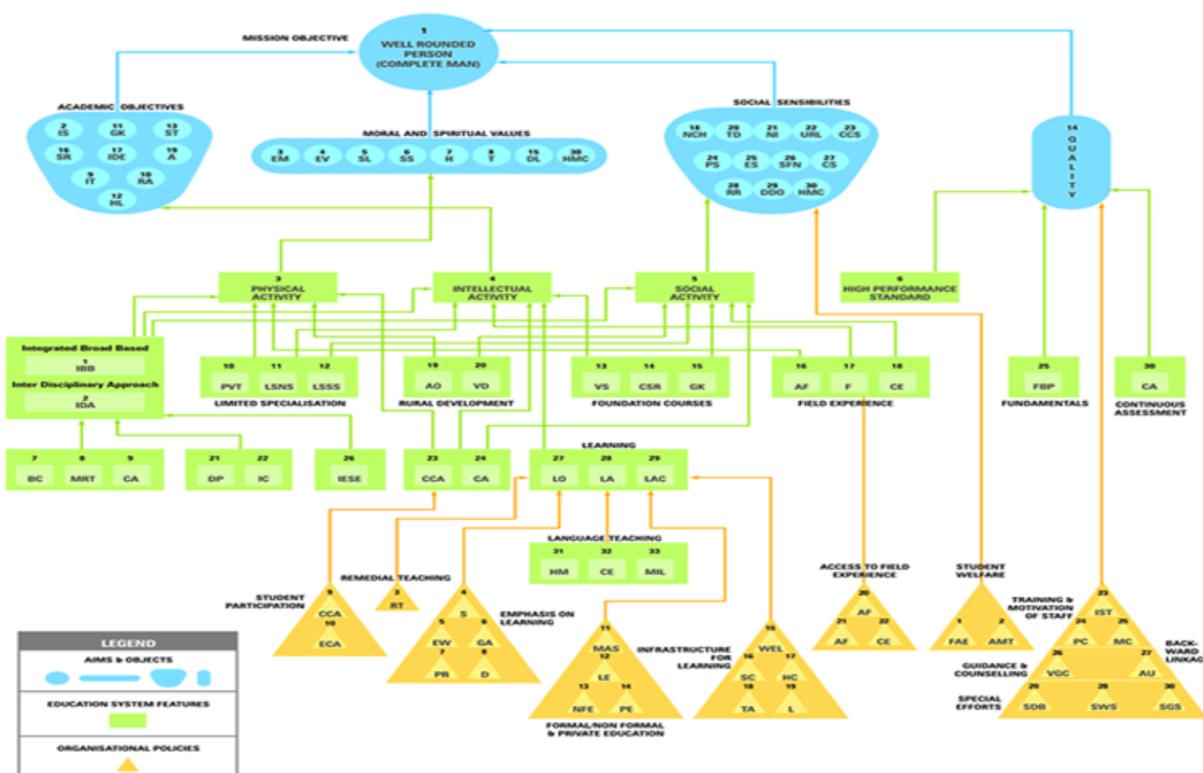
## **The DEI Education Policy**

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:

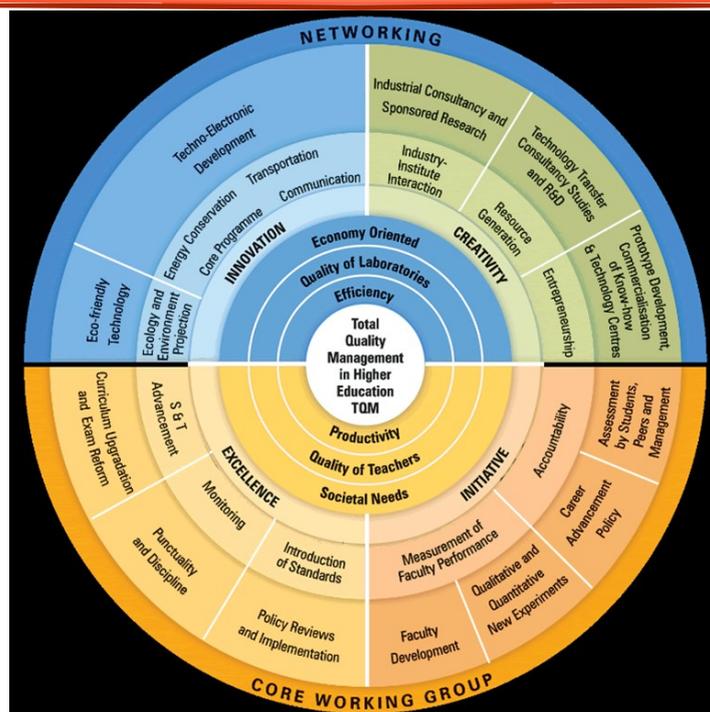
- Physical, intellectual, emotional and ethical integration of an individual.
- Evolve the complete man with values of humanism, secularism and democracy, to better equip him to solve social, economic and environmental challenges.
- Truthfulness, temperance and courage.
- Ideals of humility, simple living, 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 Total Quality Management Framework shown in the Figure 1.



### Interpretive Structural Model for Educational Policy of DEI



**Figure 1: 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 as 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. It is our observation 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.

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. To establish Total Quality Management across all activities of the University, the Plan encompasses undergraduate and postgraduate education, research, infrastructure, and information and communication technology and campus development. The Institute has accepted this challenge and is confident of achieving success with the cooperation of faculty, staff, students, alumni and other interested partners.

### **Advisory Committee on Education (ACE)**

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 & 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 operates under the chairmanship of Most Revered Professor Prem Saran Satsangi Sahab, Ex Director Dayalbagh Educational Institute, and provides requisite help at every step towards achieving success in all our 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 supporting staff and administrative supporting staff. The list of members is given below:

<b>Name</b>	<b>Designation</b>	<b>Affiliation</b>
<b>Prof. P S Satsangi Sahab Ex Director, Dayalbagh Educational Institute</b>	Revered Chairman	Advisory Committee on education, Dayalbagh Educational Institutes
<b>Prof. V B Gupta</b>	Vice-Chairman	Advisory Committee on Education, Dayalbagh Educational Institutions
<b>Prof. P.K Kalra</b>	Director	DEI
<b>Prof. Pami Dua</b>	Director	Delhi School of Economics
<b>Prof. S. S. Bhojwani</b>	President Technical and Financial Advisor	MCREI Department of Agriculture and Irrigation, Dayalbagh
<b>Prof. P Srimamurti</b>	In-Charge	Divinity Study Forum
<b>Prof. P. K. Kalra (IIT Delhi)</b>	Professor	IIT Delhi
<b>Prof. Ravi Kantra Chopra</b>	Retired Professor	NCERT, New Delhi
<b>Shri V. Prem Swarup</b>	Adjunct Professor	DEI
<b>Prof. Ira Das</b>	Emeritus Professor	DEI
<b>Prof. D. S. Mishra</b>	Emeritus Professor	DEI
<b>Prof. K C Vashistha</b>	Retired Professor	DEI
<b>Shri P P Dua</b>	Retired Principal	DEI Technical College
<b>Prof. S P Kaushik</b>	Principal	Radhasoami High School, Timarni
<b>Prof. Poornima Jain</b>	Emeritus Professor	DEI
<b>Smt. Sneh Bijlani</b>	Treasurer	DEI
<b>Prof. Anand Mohan</b>	Registrar	DEI

<b>Dr. RMM Singh</b>	Retired as Registrar	DEI
<b>Prof. Vishal Sahni</b>	Retired Professor	DEI
<b>Prof. C. Pathwardhan</b>	Professor	DEI
<b>Prof. J. K. Verma</b>	Professor	DEI
<b>Prof. Sanjeev Swami</b>	Professor	DEI
<b>Prof. Gursaran</b>	Professor	DEI
<b>Prof. K. Santi Swarup (Secretary/Convener)</b>	Professor	DEI
<b>Prof. Sukhdev Roy (Secretary/Convener)</b>	Professor	DEI

### **Extrinsic and Intrinsic Education**

The educational framework of the Institute addresses physical, mental and spiritual needs through a blend of intrinsic and extrinsic education. While extrinsic education, includes tangible outcomes such as skilling, numeracy, employability and subject matter expertise, is generally provided across all educational systems, careful crafting of an educational framework is required to include intrinsic development as formal part of the curriculum. Intrinsic education is central to DEI's approach and focuses on inculcating in students' values, qualities and attributes such as truthfulness, justice, tolerance, brotherhood, and selflessness that lead to the development and progress of the community. It is obvious that intrinsic education is an intangible and latent, life-long, self-learning process for which seeds should be instilled at inception and nurtured throughout the learning process. The combination of DEI's intrinsic and extrinsic education ensures development of a 'person-for-community' approach, rather than 'person-for-self'. The various activities and programs implemented at the Institute also effectively contribute to the attainment of UN Sustainable Development Goals (UN SDGs) which provide the blueprint to achieve a better and more sustainable future for all.

It is encouraged to work with a spirit of selfless service and sacrifice for the larger good, and a frugal, Earth-friendly approach to life. Our education blends 'magnification' which is the development of subtle levels of the inner (microcosmic) self, and 'scaling – up', which refers to processes in the physical world (macrocosm) that lead to profit and pleasure. Holistic education at DEI blends both these aspects of personal development, with the maxim 'Fatherhood of God and Brotherhood of Man' being an overarching guide. With a fee structure that is the lowest in the country in comparison to the other institutions of higher learning, DEI offers hope to the last, the least, the lost and the lowest.

DEI believes in shared responsibility and accountability to bring out the best in others. Hence, decentralization has been adopted to take education to the doorstep of the learner. This has resulted in many Off-Campuses being developed at Delhi, Melathiruvenkatanathapuram (Tamil Nadu), Timarni (MP), Bengaluru, Murar(Bihar), and Amritsar(Punjab).

The Institute stresses on combination of excellence in research with relevance to the contemporary needs of the society, the nation, and the world at large. At the local level, DEI collaborates with the local community, government and non-government organizations to solve problems, facilitating engagement in experiential learning opportunities for students and scholars, allowing them to return to the community. Internationally, DEI partners with institutions that can help extend its global reach and transfer knowledge in the field where DEI plans to focus its research. DEI has established international collaborations and MoUs with several Institutes in Asia, America and Europe. These collaborations have led to joint conferences/seminars and workshops, exchange visits of faculty and students, shared projects, publications, training of manpower and common curricula / courses. Strong support of alumni and friends of DEI has enabled setting up remote

learning centers across 400 centers in India and abroad. The objective of these learning centers is to provide access to education to the least on the last mile.

Skill development and entrepreneurship are integral to the Academic Program of DEI, since inception in 1917. In recent years, DEI has launched several vocational courses, in sync with one of the primary objectives of the Government of India: producing a highly skilled workforce for nation building. DEI now is one of the single largest skill providers in the country. DEI has also been recognized by the MHRD and the Government of UP as a key public sector agency for vocational training. The Sector Skill Council of Green Jobs has certified DEI as the best Solar Skill Training Institute. DEI took a quantum leap in the arena of entrepreneurship development through well-established laboratories and Skill Parks in various fields, viz. Automotive Workshops, Apparel and Toy Manufacturing, Agro & Dairy Business, Consciousness Studies etc. An intelligent marketing network was established, connecting rural and tribal zones to global economies. Setting up e-Portals and Business Advisory Clinics has also opened novel avenues for entrepreneurship to the students of DEI. DEI has set up rural resource centers/incubators called karkhanas in the rural zones to accelerate entrepreneurial activities:

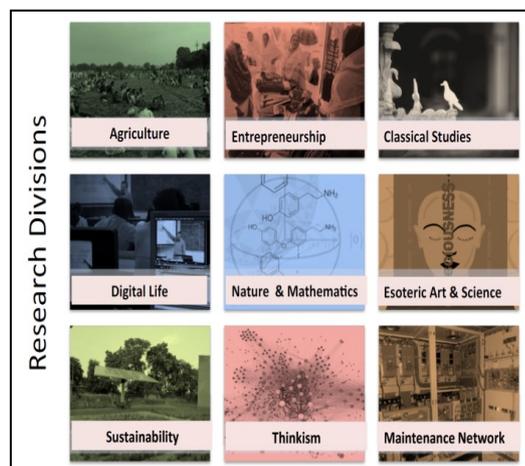
### Working towards a Sustainable World

DEI has always advocated and has been practicing 'excellence with relevance.' DEI envisions to be a leading teaching cum research institute in Consciousness studies and Entrepreneurial education with emphasis on agriculture, dairy farming and healthcare. Research and technological advancement benefitting the immediate social fabric is common to the community of DEI. Mostly the research focus has been on developing methods, procedures or technologies that are customized for Indian societies that are cost effective to ensure equal penetration at every social level aiming at the overall enhancement of quality of life of the masses. This approach at DEI termed as the SIGMA SIX Q-V-I-A approach strives to achieve excellence through quality, values, innovation and creativity. This approach weaves the SIX basic yarns important for better livelihood giving emphasis on research towards improving the QUALITY (Q) of life. The six qualities are Innovation, Air Quality, Water Quality, Health and Education, Agriculture and Dairying and Values such as Duty, Beauty, Humility, Courage, Temperance, Wisdom, Loyalty and Justice. The cumulative effect of interaction of all the six components is many times more than their individual effect that leads to a synergistically enhanced impact on the system.



### Research with Impact, Engaging with Communities

The Institute follows the Living Lab approach that personifies experiential education through skilling in globally relevant and emerging technological areas like Renewable Energy, Internet of Things (IOT), Dairy Technology, Water, Health and Sanitation among others. Based on the distinguished past, present academic wealth and in anticipation of future global challenges, DEI has identified nine emerging multidisciplinary research areas, Agriculture, Entrepreneurship, Classical Studies, Digital Life, Nature and Mathematics, Esoteric Art & Science, Sustainability, Thinkism and Maintenance Network. These areas are globally deliberated by technologists to



address the locus standi of humans in the era driven by super-intelligent machines and break the traditional boundaries of departments and faculties and create multidisciplinary research divisions to converge diverse expertise from science, humanities, technology and management.

### **Committed to Reconciliation, Welcoming Women**

DEI has created lab-on-land in the areas of dairy farming, renewable energy, security and surveillance. This concept unfolds the challenges of real life and leads to research and experiments to address these issues. It is proposed that the same will be done in agriculture through diversification. Lab-on-land experimentation and research will be carried out at all off campuses and technology interventions will be the prime area where students will be trained on precision agriculture, increased yield (three different crops per year). Diversification of agriculture will build the enterprises around green (agri) and white (dairy) economy across the country. It is the only Academic Institution in North India with FSSAI and HACCP license to export flavoured milk to the USA. This is reaffirmation of its commitment to become a fore runner in heralding the 2<sup>nd</sup> White revolution and is reminiscent of the 1930s, when the Dayalbagh Dairy was deemed as being the Best in Asia.

Entrepreneurial education in DEI has different flavour. DEI has been engaged in mobilizing the lost youth with least resources to engage purposefully with any of the six pillars of education in DEI. For this DEI regularly organizes medical camps in the rural areas every fortnight through the NSS wing. These medical camps apart from free medical check-ups, also offers skilling activities for children. These activities are called 'hole in the wall' experiments. These activities create a hole in the wall of social and economic barriers and allow them to explore and access the world full of opportunity for development and progress. Agricultural counselling is also a part of these medical camps. DEI aspires to engage every applicant with NO-MEANS in education by creating enough opportunities for earning for sustaining themselves to bring many students to the mainstream education and in building their scholarship.

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

Agriculture, Consciousness studies and Entrepreneurship are the three thrust areas of DEI. These areas link up past with future, frugal engineering with cutting-edge technologies, tilling, toiling (using one's hands) and tinkering with higher-order, sophisticated thinking. A healthy body and mind, practices such as ultra-transcendental meditation leads to inner well-being and a stress-free lifestyle, enabling progress because of non-interference of negativities.

The Dayalbagh agriculture produce includes grains, fruits, vegetables, flowers and medicinal plants in 1200 acres of land. Agriculture produce during the lockdown period was abundant in quantity and variety. The total Green Fodder yield including Rabi, Kharif and Ziad grew to 40184 qts., which is the highest in comparison to the previous five years of agricultural output. The social work carried out by Dayalbagh community and DEI students, staff and faculty members not only contribute to healthy lifestyle but also to food security, healthcare and selfless services to mankind.

The Dayalbagh community's schedule of twice-a-day agriculture fields activity along with congregational prayers open to all, has considerably helped the members of the community not only in maintaining their physical health and mental alertness but also in enhancing their consciousness awakening, inner peace and a spirit of optimism in life.

Gaushala, another pillar in the process of sustainable development of DEI and Dayalbagh, has about 1100 cows. In the last 10 months the average milk production has been 1,465 litres per day with a peak also of 1,957 litres. The gaushala milk is consumed by the community and DEI Dairy. The Dairy has pasteurizing,

---

homogenising, testing and packaging facilities for milk and milk products. DEI's dairy products with value addition like flavoured milk, butter, chocolates, ice-cream, fudges, truffles, basundi, burfi, hot-milk, curd, ghee, shrikhand and many others are manufactured afresh every day. Nothing stops the dedicated spirit of service, and even in the face of the COVID-19 crisis. 698 liters of milk were processed in a single day and 180 liters on daily basis in DEI Dairy. Similarly, 232 liters tea were made for distribution to field workers in a single day and 110 liters on daily basis. On an average 6000 liters of milk and 3500 liters of tea were processed in a month during the pandemic. The butter production has gone up to 4000 cakes of fifty grams per week.

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

At Dayalbagh we have a Modern Health Care Habitat with provisions for health security and personal security with built-in self defence mechanism. This objective is achieved through SIGMA SIX Quality, Values and Attributes wherein Water and Air Quality are monitored regularly at Dayalbagh.

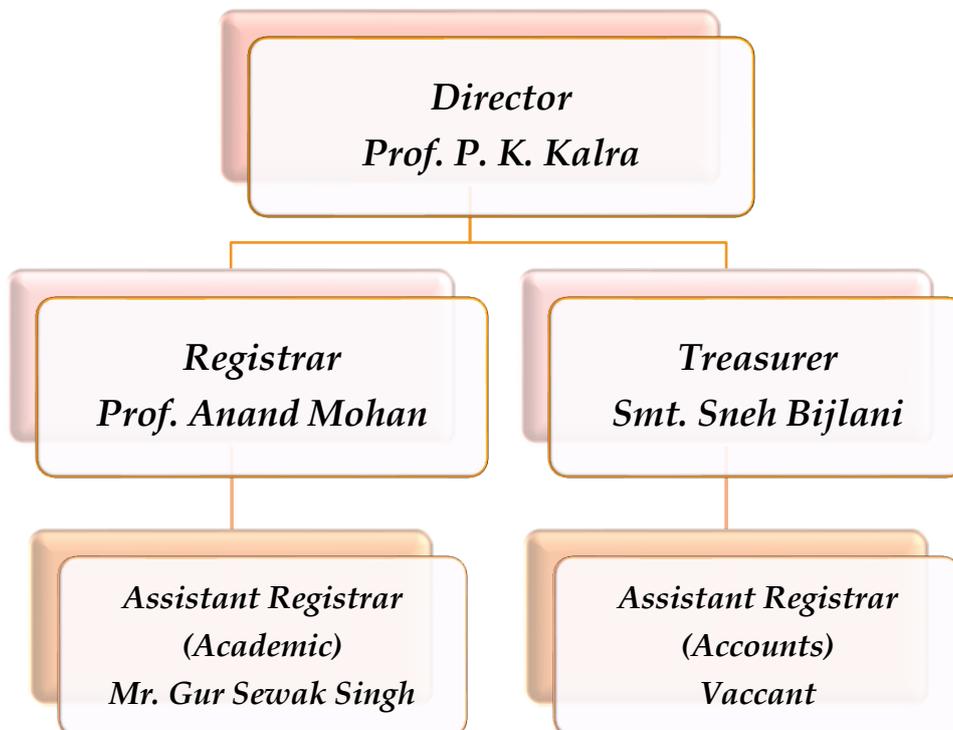
### ***Development of Bio-diversity Parks and Agriculture Fields***

Biodiversity Parks and agricultural fields have been developed. These wide and open spaces provide excellent platforms for teaching and working in Lab-on-Land activities while maintaining social distancing and other precautions.

---

# Organisational Structure

The senior administration of the Institute consists of the following.



## Administrative and Academic Bodies

### Administrative and Academic Bodies



## Board of Management (Governing Body)

The Board of Management (Governing Body) of the Institute consists of 14 members as can be seen from the figure below. The Board of Management (Governing Body) meets as often as necessary but at least four times a year.

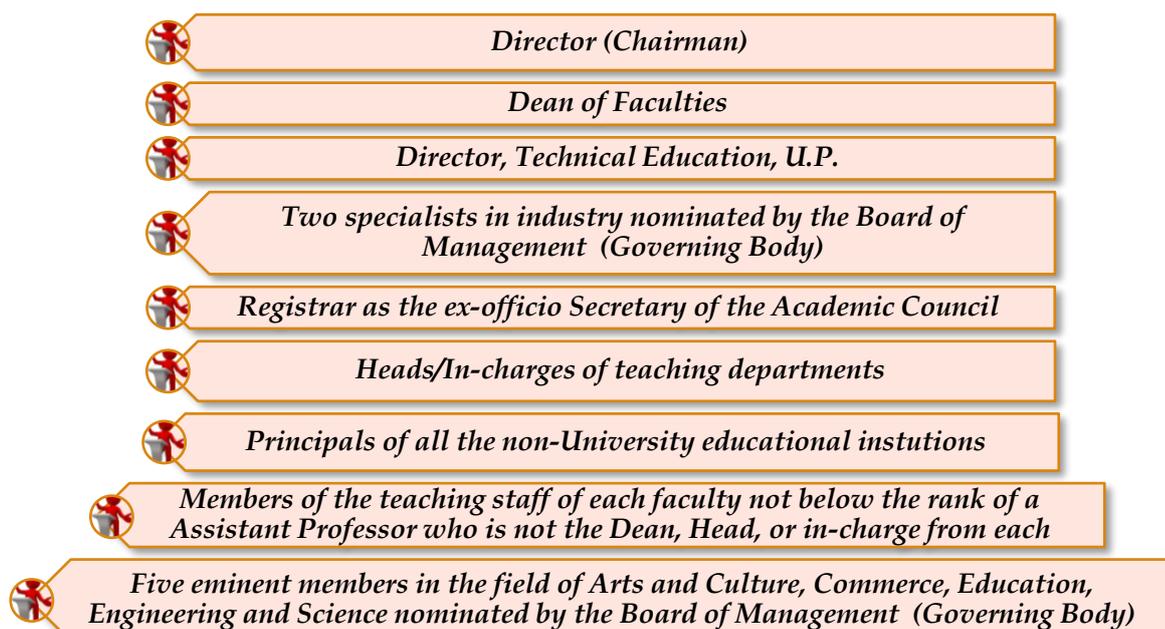
### Board of Management (Governing Body) (14 Members)



### Academic Council

The Academic Council meets as often as necessary but not less than three times during an academic year. The Academic Council of the Institute consists of the members as shown in the diagram below.

### Academic Council



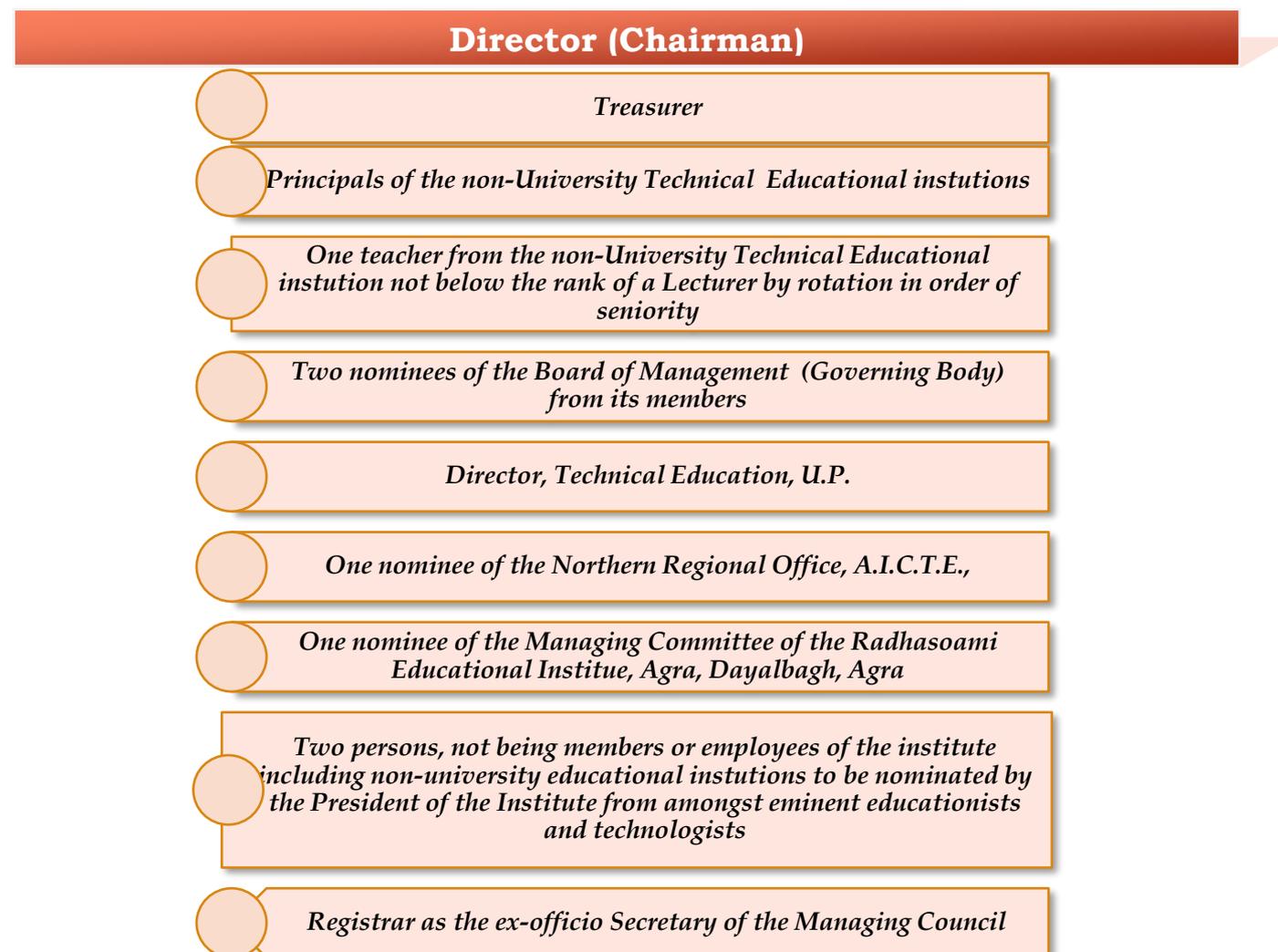
### Finance Committee

The Finance Committee of the Institute consists of the. The Finance Committee meets at least twice a year.



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

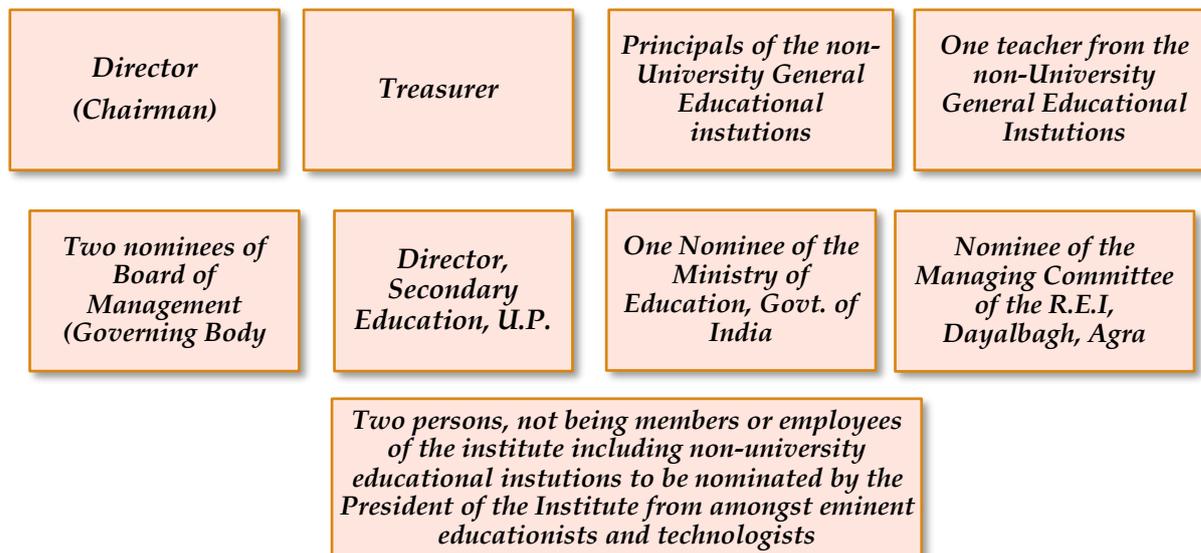
The Managing Council for the Non-University Technical Educational Institutions consists of the members as shown in the figure below.



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

The Managing Council for the Non-University General Educational Institutions consists of the members as shown in the figure below.

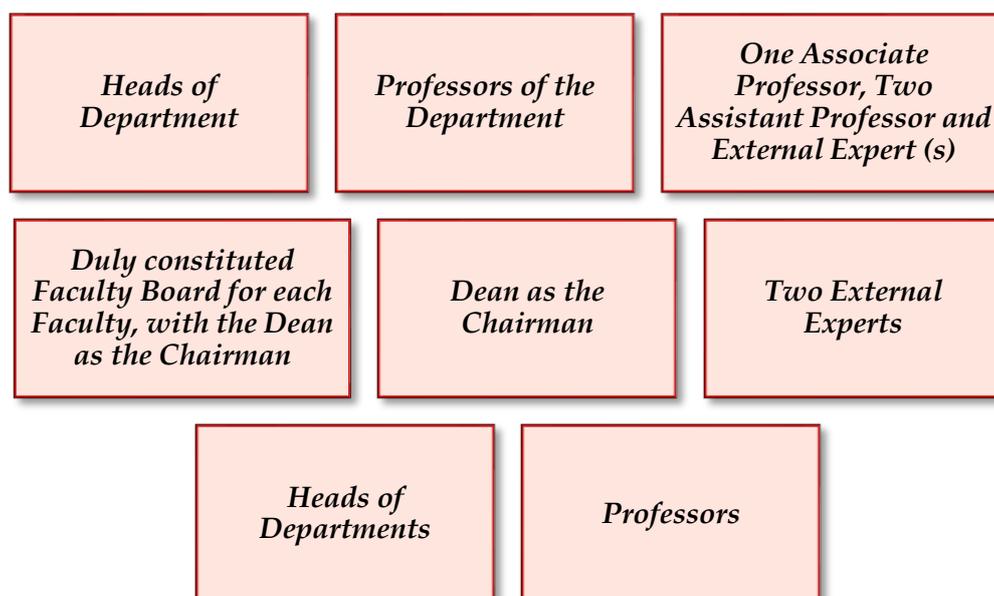
### Managing Council for Non-University General Educational Institutions



### Board of Studies / Faculty Board

The Board of Studies consists of the members as shown in the diagram below. 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.

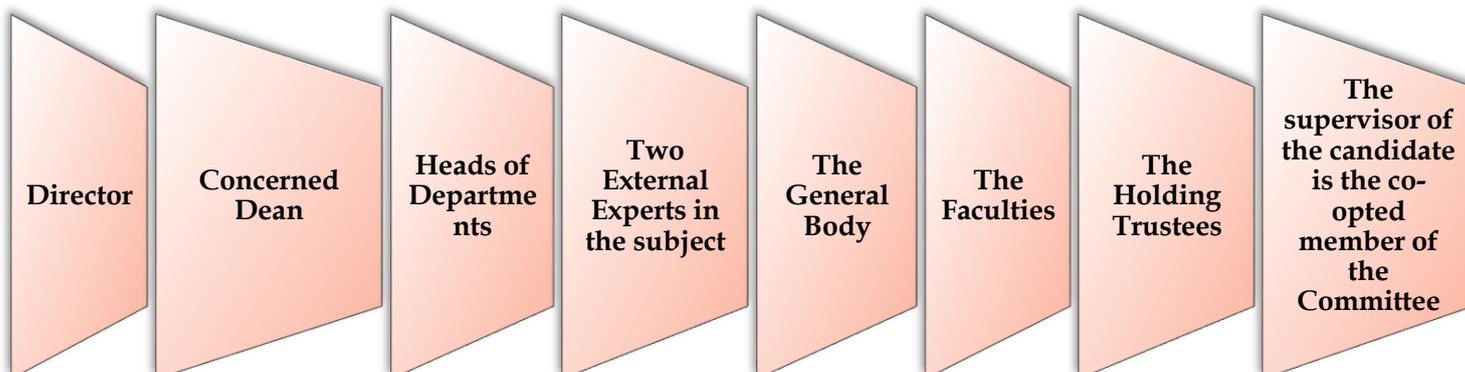
### Board of Studies/ Faculty Board



### 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.

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

# Administrative Report

## Forty-First Convocation



The 41<sup>st</sup> convocation of Dayalbagh Educational Institute was held in a dignified manner at 'Shiksha-Strot Bhawan (Convocation Hall)'. This year, 5813 students obtained degrees and diplomas in various courses of DEI. 156 Director's Medals, 03 President's Medals, and 105 Ph.D. degrees were awarded. 2488 Undergraduate degrees, 818 Post graduate degrees, 875 Diplomas, 121 Post-graduate Diplomas, 838 Certificate Pass Courses, 230 High School, and 338 Intermediate certificates, were distributed among students. Mr. Aman Pratap Singh and Ms. Tanu Kaur were awarded the President's Medal for scoring the highest marks in all the Undergraduate examinations while Mr. Harsh Vardhan was awarded the President's Medal for the highest scoring in all the Postgraduate examinations. On this special occasion, the Chief Guest Shri Sanjay Jaju, IAS, Former Additional Secretary, Ministry of Defence, Government of India, was conferred with the 'Systems Society of India (SSI) Life Time Achievement Award.'

In his Convocation Address to students, Shri Jaju said that Institutions like Dayalbagh Educational Institute, not just build the future of the youth, but also build the youth of the future. Students are fortunate that the university has equipped them with new-age skills and tools to create bright future. Shri Sanjay said that it is only through the process of innovation that knowledge can be converted into wealth for our society. He was happy to see a number of initiatives that have been spearheaded by the DEI. In terms of scientific research, a large number of research platforms have been created across multiple disciplines and 14 patents have been granted. Additionally, 31 patents have been published along with a large number of active collaborations with International and National Institutions of repute. Thus impressed, he stressed that now, emphasis should be on raising the bar, aiming for breakthroughs in research, and having a say not just in India but across the world. The Chief Guest hoped that he would see a unicorn emerging from the DEI University sooner or later and innovation is embraced as a way of life at the University. In the end, the distinguished Guest wished all the students to bring glory not only to themselves and family, but also to the beloved university, the state, and of course the nation.

Director of the Institute, Prof. P.K. Kalra presented the Institute's report on this occasion. He pointed out that, the Dayalbagh Educational Institute (Deemed to be University) is well-recognized for its innovative, global, and multi-variate approach to education. In addition to academics, where students are encouraged to practice ethical, civic, and social values and qualities, DEI has had a substantial social impact in terms of, women empowerment, economic inclusivity, and environmental monitoring and rectification. Activities promoted on campus are in line with United Nations Sustainable Development Goals (UNSDG) of which Innovation, women empowerment, education, creation of a sustainable healthcare habitat, air and water quality monitoring, and agroecology-cum-precision farming and dairying are some of the hallmarks. These are strengthened by a frugal lifestyle that promotes ever-evolving and adaptable 'Better Worldliness,' which represents the Golden Mean Path between extremes of gross worldliness and sequestration in forests practised by rishis and munis of yore. Prof. Kalra mentioned that at the DEI, we encourage research that has an impact on both people and the planet. Climate change, food security, renewable energy and healthcare are some such areas. Bench strength is created by giving seed money to new faculty members. Anticipating domains in the time window from 2050 to 2100, our undergraduates are encouraged to take up research in cutting-edge areas like quantum computing and information processing, consciousness (examined from the triple perspectives of Arts, Science, and Engineering), and new and renewable energy. The aim is to create researchers with the acumen to provide holistic solutions to future global challenges. The DEI along with its international collaborators has been working in these areas for two decades, resulting in the evolution of several research platforms that have also helped in solving local problems. It offers many mini-plants and skilling and vocational programmes since its inception. He also added that as a step to reinforce Women's Empowerment, the ICT Continuing Education Centre of the DEI has initiated a training programme for women to enter the Defence Forces.

Shri. Gur Swaroop Sood, President of the DEI, and Radhasoami Satsang Sabha, Dayalbagh, presided over the event. A special Exhibition of DEI Products and a Socio-Cultural Programme were also organized on this momentous occasion which were attended and very much appreciated by the Chief Guest.

The overwhelmed Sh. Jaju thus put his feelings on record: It has been personally a huge learning and spiritual awakening for me. Have been impressed with the work being done by DEI. I got an opportunity to see it first-hand. Future generations are being curated to be flagbearers of our country both in values and skills. Remarkable to see and learn. He further added through his WhatsApp message: It was my most humbling experience that allowed me to see the true beauty of life and selfless work for the social and spiritual upliftment of society.

## Founder's Day



Like the previous years, in fond memory of the Most Revered Dr. M.B. Lal Sahab, Founder of the Dayalbagh Educational Institute (Deemed to be University), the Institute celebrated His Birth Anniversary, on 31<sup>st</sup> January, as Founder's Day. Amidst all precautions concerning the still lurking Pandemic, the Institute opened its buildings, labs and facilities for visitors to get a glimpse of various dynamics of education followed at its headquarters as well as associated centres all around the world. The DEI fraternity put its best foot forward to provide a graphic overview of the substantial policies, favourable work culture, sustainable

approach and innovative research-mindedness followed in all its educational programmes and segments. The vicinity looked resplendent with every corner well decorated and showcasing the success stories of the academic efforts of students as well as the faculty members. The massive Exhibition organized at the Central Playground displayed an impressive array of models, exhibits, products and presentations where the complete range of a plethora of multifarious programmes and ventures of DEI could be witnessed. While games, cultural presentations and food stalls provided a carnival-like entertainment quotient to the event, the pleasant melodies of Bhakti Sangeet bestowed a spiritual aura on the Campus. In the evening, all the buildings of the Institute were bedecked with mesmerizing colourful lighting to provide a befitting climax to the celebrations.

### **Independence Day**

Celebrating 'Azadi Ka Amrit Mahotsav' on the momentous occasion of completing 75 years of India's Independence, the Tricolour Flag was hoisted with great pomp and fervor at Dayalbagh Educational Institute, Dayalbagh, Agra. Shri A. Manikandan, IAS, Chief Development Officer, Agra was the Chief Guest on this occasion.

Students of DEI-NCC presented the 'Guard of Honour' to Shri and Smt. Manikandan on arrival. A grand March Past by the contingents of all the faculties, colleges and schools of DEI was held with remarkable discipline and coordination. Patriotic songs were sung by various groups of students. Winners of various competitions and March past parade were given prizes by the Chief Guest and Director, DEI. A special prize was given to the children of Superman Evolutionary Scheme for their excellent performance. The programme was telecast to various study centres of DEI across India and abroad and also participated by thousands of people through the e-cascade network of Dayalbagh.

The Chief Guest lauded the Independence Day programme organized at the Institute and motivated the students to be ready to contribute to build a bright future for India through their hard work, dedication and discipline. He explained the significance of the Independence Day to the students and remembered the great sacrifices made by the freedom fighters of India. He also highlighted the great economic and social progress made by the country in the past 75 years and specially praised the various inventions and technological development made by our scientists and researchers. He mentioned that DEI's Ecosystem of education creates a complete and holistic human being and said that DEI is remarkably imparting the desired values and qualities to make its students responsible citizens of the country. Congratulating everyone on this occasion, Prof P.K. Kalra, Director, Dayalbagh Educational Institute, exhorted the students to come forward with innovative solutions and to face the challenges of providing food security to the growing population of the world in future. He said that food security can only be attained through a lifestyle of Lacto-vegetarianism by providing nutritious food to one and all.

Mrs. Manikandan also encouraged the students with her motivational speech, highlighting the true meaning of independence. While describing Discipline as the most vital ingredient for success in life, she pointed out that the discipline of students in DEI is highly commendable.

The programme ended with the Institute's Song followed by tree plantation 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 a special interest in students' presentations and wished them success in future. On this occasion, Shri Gur Saroop Sood, President, DEI, Registrar, Treasurer, Deans, Principals, members of the Governing Body of the Institute were also present.



## Republic Day



The 74<sup>th</sup> Republic Day of the nation was celebrated at the Institute with immense grace and solemnity, under strict adherence to the Pandemic norms. Since the occasion coincided with the auspicious Basant festival this year, the celebration witnessed much greater zeal and passion amongst the DEI fraternity. Shri Gur Swarup Sood (IDAS-Retd.), President, Radhasoami Satsang Sabha, and Dayalbagh Educational Institute (Deemed to be University), was the Chief Guest of the Event. Apart from the usual ensemble of activities like presenting the Guard of Honour before the Chief Guest, Flag Hoisting, Rendition of the National Anthem, and Grand March Past by the Contingents of Sant(superman) Evolutionary Scheme and DEI Nursery and Play Centre, various Schools, Colleges, Faculties and Vocational Programmes of DEI, a cultural extravaganza was also organized to express the double joy. Students paid homage to the people who gave supreme sacrifices or became martyrs for the nation through zealous Dramatic Performances, Patriotic Songs, PT Drills, and Action Songs. The Scout Song of Dayalbagh was also sung during the Event. The highlight of the celebration was the inspiring presentation of the Self-defence Drill by the members of the Rapid Action Force, established by Dayalbagh Authorities for training girls and women to combat different forms of threats and menace.

While addressing the gathering, Shri Sood remembered the people who made sacrifices to win back the glory of India and briefly highlighted the salient features of our dynamic Constitution. He urged the students to strive to become able citizens of India and shared with them the significance of the Principle of Aris-Demo (aristocracy of the spirit and democracy of individuals) forming the strong foundation of the social structure of Dayalbagh. In his turn, Prof. PK Kalra, Director, DEI, shared the latest feats and endeavours of the Institute in serving the last, the least, the lowest and the lost sections of society and exhorted the students to become active contributors to attain this lofty mission. The Programme ended with the Institute Song followed by a Vote of Thanks.

## Institute's Achievements

### Visit of DEI Team to Italy

Dayalbagh Educational Institute is participating in a transnational collaboration Mission Innovation R&D project (DST MI CALL-19) on Different Energy Vector Integration for Storage of Energy (DEVICE). The consortium includes Indian Institute of Technology, Roorkee, Indian Institute of Technology, Delhi, Dayalbagh Educational Institute, Agra-282005, FBK - Fondazione Bruno Kessler, Italy, UiT - The Arctic University of Norway, and UMU - Umeå University, Sweden. A delegation of the following six consortium members from India was scheduled to visit FBK, Italy from 24 to 30 March 2023 for a review of the progress, technical discussions on the ongoing project, and exploring the possibility of extending the collaboration with future projects:

1. Prof. A. K. Saxena, Dept. of Electrical Engg., Dayalbagh Educational Institute
2. Prof. D. Bhagwan Das, Dept. of Electrical Engg., Dayalbagh Educational Institute
3. Prof. Vishal Kumar, Dept. of Electrical Engg., IIT, Roorkee
4. Prof. Barjeev Tyagi, Dept. of Electrical Engg., IIT, Roorkee
5. Prof. Ravi Kumar, Dept. of Mechanical Engg., IIT, Roorkee
6. Dr. Dibakar Rakshit, Dept. of Energy Science & Engg., IIT, Delhi

A brief overview of the project is given below:

- The existing micro-grids integrate various renewable energy sources with the grids. However, such micro-grids are heavily biased towards electrical energy. Other forms of renewable energy are converted into electrical energy for integration with the grid.
- At present, the storage of energy is also predominantly electrical but this strategy prevents the efficient and rational end-use of diverse sources of energy, especially where the energy is available as heat and is supposed to be used in the same form.
- Therefore, there is a need for the development of a more holistic definition and design of the renewable energy micro-grid, which ensures efficient integration/transformation of different forms of energy for rational end-use and storage of all forms of renewable energy to facilitate the optimal interchange of energy from one form to another.
- The goal of the project is to design and implement a hybrid micro-grid of electric and thermal energy with heterogeneous storage and relevant energy conversion inter-linkages. Further, to demonstrate the pilot for emphasizing its utility as a solution to energy needs in general and particularly in village setup to give the necessary impetus to rural development.

### Project Partners:

Organisation Name	Country
Indian Institute of Technology, Roorkee	India
Indian Institute of Technology, Delhi	India
Dayalbagh Educational Institute, Agra	India
UiT The Arctic University of Norway	Norway
Fondazione Bruno Kessler	Italy
Umeå University	Sweden

*"We travelled to Agra, where we visited the Dayalbagh Educational Institute (DEI), an open-air-classroom university focused on Sustainable Practices, Self-discipline, and Spirituality. DEI has invested in significant outreach to the neighboring low-income community. In Agra, we had the opportunity to experience the unparalleled beauty of the Taj Mahal. In all places, I was treated to outstanding hospitality, including great Indian food and warm social interaction".*

*- Remarks by Prof. Athina Petropulu, President of IEEE Signal Processing Society and Distinguished Professor in the Department of Electrical and Computer Engineering, Rutgers University of New Jersey, USA on her visit to the Institute on 14-15 January, 2023.*

# Staff and Student Strength and Composition

Number of Teaching Faculty	
<b>Teaching Staff</b>	<b>316</b>
<b>Assistant Professors</b>	<b>154</b>
<b>Associate Professors</b>	<b>20</b>
<b>Professors</b>	<b>81</b>
<b>Guest Faculty</b>	<b>42</b>
<b>Lecturer</b>	<b>18</b>
<b>Senior Lecturer</b>	<b>1</b>
<b>Non-Teaching Staff</b>	
<b>Total Non-Teaching Staff</b>	<b>293</b>

## A. NUMBER OF STUDENTS ENROLLED IN THE DEI CAMPUS (SESSION 2022-2023)

### CATEGORY WISE STUDENTS' ENROLMENT IN UNIVERSITY DEPARTMENTS

CATEGORY	1		U.G.	P.G.	M.TECH	PH.D.	PG DIPLOMA/ DIPLOMA/ CERTIFICATE	TOTAL
<b>TOTAL STUDENTS ENROLMENT</b>	2	M	3030	517	97	239	32	3948
		W	3531	972	33	645	69	5296
		T	6561	1489	130	884	101	9244
<b>GENERAL</b>	3	M	1457	282	54	135	13	1955
		W	1827	537	16	369	30	2807
		T	3284	819	70	504	43	4762
<b>SC</b>	4	M	459	79	16	37	7	602
		W	623	163	07	101	15	913
		T	1082	242	23	138	22	1515
<b>ST</b>	5	M	43	06	02	00	00	51
		W	22	05	01	03	02	53
		T	65	11	03	03	02	84
<b>BC</b>	6	M	1071	150	25	67	12	1340
		W	1059	267	09	172	22	1543
		T	2130	417	34	239	34	2883
<b>PH</b>	7	M	27	07	00	00	01	35
		W	16	03	00	01	01	22
		T	43	10	00	01	02	57
<b>Minority</b>	8	M	39	09	02	01	00	52
<b>(Muslim)</b>		W	41	16	00	06	00	64
		T	80	25	02	07	00	116
<b>Other</b>	9	M	111	12	01	01	01	127
<b>Minorities</b>		W	227	78	00	13	09	329
		T	338	90	01	14	10	456

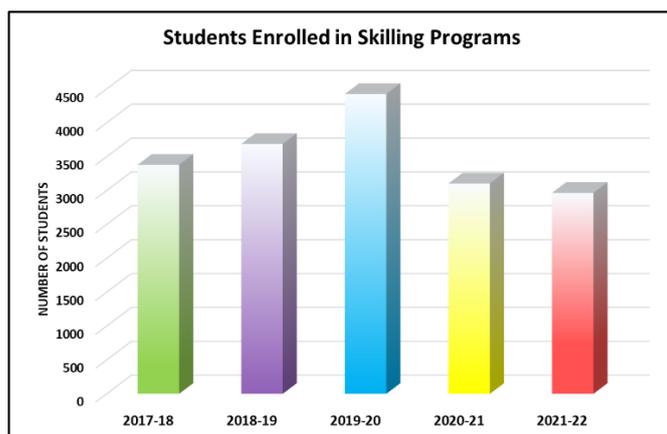
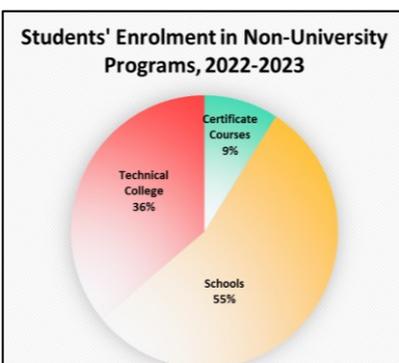
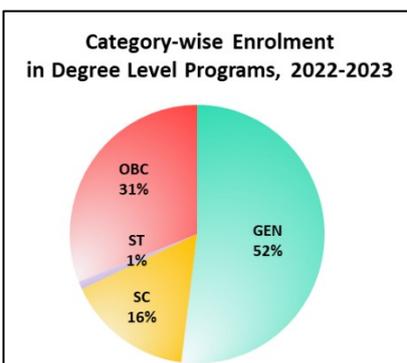
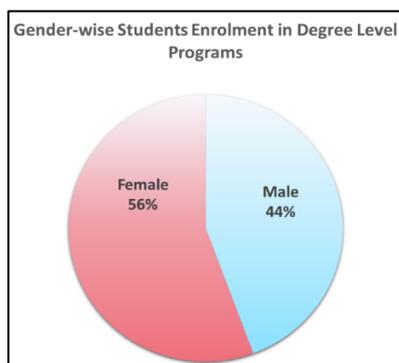
TOTAL	(3+4+5+6+7+8+9)	6561	1489	130	884	101	9244
-------	-----------------	------	------	-----	-----	-----	------

**B. UG & PG- Students Enrolment 2022-2023- Information Centres (Excluding ICTs)-Distance**

Category	General		BC		SC		ST		PH		Minority (Muslim)		Minority (Other)		Total		Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W	
UG	156	187	76	68	28	21	05	17	01	02	02	03	14	19	265	293	558
PG	18	38	09	14	09	08	00	00	00	00	00	01	02	04	36	60	96
PD	00	01	00	00	00	00	00	00	00	00	00	00	00	00	00	01	01
CT	230	159	334	152	80	42	05	02	05	02	16	09	28	18	649	355	1004
Total	404	385	419	234	117	71	10	19	06	04	18	13	44	41	950	709	1659

**C. Students Registered in Technical College**

Technical College (Diploma) : 1915  
 Schools : 1108  
 Total (A+B+C) = :13,926



**LIST OF STUDENTS (2021-22) RECEIVING MEDALS AT THE FORTFIRST CONVOCATION**

**DIRECTOR'S MEDAL**

1.	High School Examination, 2022	2000126	Tamanna Satsangi	9.98
2.	Intermediate Examination, 2022	2000605	Sumir Gupta	9.97
For securing highest grade point in -				

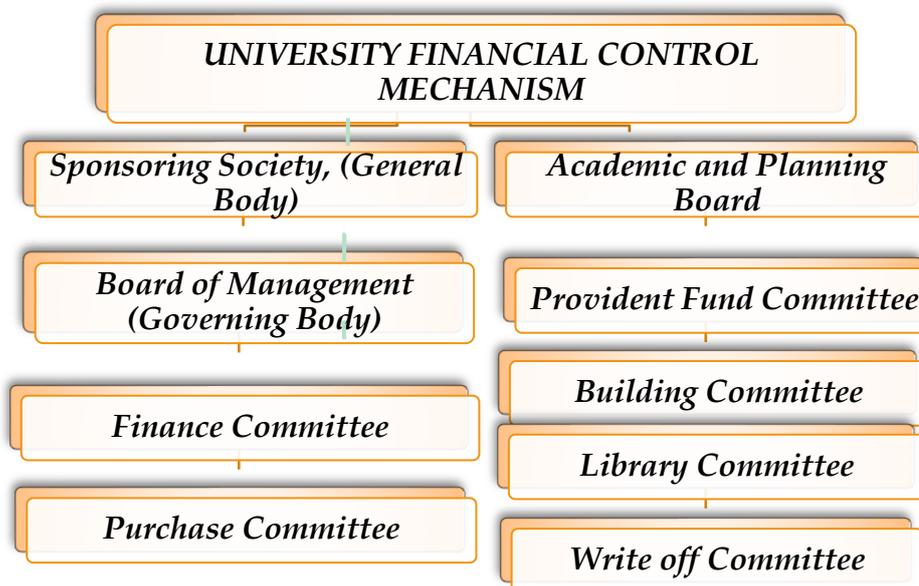
3.	Technical Diploma Level Examinations, 2022	1955321	Akansha Sharma	9.43
4.	Diploma in Elementary Education Examination, 2022	2001043	Sakchham Srivastava	9.15
5.	Diploma in Ayurveda (Up-Vaidya) Examination, 2022	2003774	Jyoti Kumari	8.83
6.	P.G.D.J.M.C. Examination, 2022	2102433	Tarun Yadav	9.28
7.	P.G.D.T.D.P. Examination, 2022	2102445	Sonal Chandra	9.39
8.	P.G.D.Th. Examination, 2022	2105562	Anurag Satsangi	9.65
9.	P.G.D.B.L.O.R. Examination, 2022	2103493	Diksha Jethmani	8.63
10.	P.G.D.C.S.A. Examination, 2022	2103517	Neeraj Kardam	8.03
11.	P.G.D.B.E. Examination, 2022	2102049	Priyanshi Agarwal	9.61
12.	P.G.D.U.P.M. Examination, 2022	2101359	Pragya Agarwal	9.68
13.	P.G.D.H.R.S.W. Examination, 2022	2100882	Archana Singh	9.77
14.	P.G.D.S.H.E. Examination, 2022	2101133	Shreshtha Jadaun	9.30
15.	P.G.D.W.M.S.E. Examination, 2022	2104053	Bharti Kumari	8.79
<b>For Securing Highest Grade Point In CULTURAL EDUCATION &amp; COMPARATIVE STUDY OF RELIGION In -</b>				
16.	Diploma in Elementary Education Examination, 2022	2001006	Deepti Verma	8.90
17.	Technical Diploma Level Examination, 2022	1905431	Nisha Kumari	9.33
18.	B.A. Examination, 2022	2004829	Sanya Sinha	9.51
19.	B.Sc. (Home Science) Examination, 2022	2004905	Harshada	8.87
20.	B.F.A. Examination, 2022	1801339	Tanishka Tiwari	9.26
21.	B.Com. Examination, 2022	2050138	Khushi Agarwal	9.78
22.	B.Com. (Transdisciplinary) Examination, 2022	2006083	Archana Mishra	8.82
23.	B.Com. (Corporate Accounting & Law) Examination, 2022	2006035	Shubhra Jain	8.50
24.	B.Arch. Examination, 2022	1700946	Samiksha Goyal	8.68
25.	B.Tech. Examination, 2022	1801618	Chittranshi Saraswat	9.38
26.	B.Tech. (Part Time) in Electrical Engineering Examination, 2022	1704367	Man Mohan Singh	7.82
27.	B.Sc. Examination, 2022	2002704	Hanshika Solanki	9.45
28.	B.Sc. Honours in Agriculture Examination, 2022	1806240	Prashant Chaubey	8.90
29.	B.Sc. Honours in Applied Botany Science Examination, 2022	1904450	Manjari Gupta	9.56
30.	Integrated Dual Dip.-Degree Voc. Dip. In I.T. & B.Sc. Comp. Sc. Examination, 2022	1906331	Kanika Sharma	9.17
31.	B.A. (Social Science) Examination, 2022	2004598	Mansi Dixit	9.60
32.	B.A. (Social Science) Transdisciplinary Examination, 2022	2005668	Tanu Rajput	8.42
33.	B.B.A. Examination, 2022	2004390	Anjali Khanna	9.68
34.	B.B.A. (Logistics) Examination, 2022	2003673	Tushar Godwani	9.50
35.	B.B.A. (Retail) Examination, 2022	2005703	Moulik Saxena	9.14
36.	B.Voc. (Apparel Design) Examination, 2022	1902762	Anjali	7.85
37.	B.Voc. (Ceramic & Pottery Design) Examination, 2022	1902974	Namrata Wadhwani	7.35
38.	B.Voc. (Commercial Art) Examination, 2022	1902934	Harshita	8.27
39.	B.Voc. (Food Processing) Examination, 2022	1903038	Jigyasa	7.94
40.	B.Voc. (Textile) Examination, 2022	1902862	Shristi Gupta	8.67
41.	B.Voc. (Tourism & Hospitality Management) Examination, 2022	1902884	Anjali Kushwah	8.98
42.	B.Voc. (Accounting & Taxation) Examination, 2022	1904277	Km. Soniya	8.88
43.	B.Voc. (Automobile) Examination, 2022	1903094	Gaurav Singh Sengar	7.55
44.	B.Voc. (Artificial Intelligence & Robotics) Examination, 2022	1906444	Devang Johari	9.08
45.	B.Voc. (Digital Manufacturing) Examination, 2022	1906518	Omkar Sharma	8.84
46.	B.Voc. (Renewable Energy) Examination, 2022	1903173	Manav Kumar	8.89
47.	B.Voc. (Water, Sanitation & Waste Management) Examination, 2022	1901410	Kuldeep Kushwaha	8.03
48.	B.Voc. (Agriculture Technology) Examination, 2022	1904545	Sohit Kumar	8.71
49.	B.Voc. (Dairy Technology) Examination, 2022	1904583	Khushi Agarwal	9.30
50.	B.Voc. (Greenhouse Technology) Examination, 2022	1904669	Yati Sharma	8.42
51.	B.Voc. (Internet of Things) Examination, 2022	1904720	Shruti Vij	9.49
52.	B.Voc. (Telematics) Examination, 2022	1904797	Devesh Yadav	8.03

53.	B.Voc. (Telecommunication) Examination, 2022	1904767	Rohit Verma	8.20
54.	B.Voc. (Banking & Finance) Examination, 2022	1902582	Bavneet Kaur	9.46
<b>For Securing Highest Grade Point In -</b>				
55.	B.A. Examination, 2022	2004829	Sanya Sinha	9.51
56.	B.Sc. (Home Science) Examination, 2022	2004905	Harshada	8.87
57.	B.Com. Examination, 2022	2050138	Khushi Agarwal	9.78
58.	B.Com. (Transdisciplinary) Examination, 2022	2006083	Archana Mishra	8.82
59.	B.Com. (Corporate Accounting & Law) Examination, 2022	2006035	Shubhra Jain	8.50
60.	B.Ed. Examination, 2022	2001556	Akanksha	9.38
61.	B.Arch. Examination, 2022	1700946	Samiksha Goyal	8.68
62.	B.Tech. in Civil Engineering Examination, 2022	1801545	Deepika Yadav	9.02
63.	B.Tech. in Electrical Engineering (with Spl. Computer Sc.) Examination, 2022	1801632	Kajal Agarwal	9.63
64.	B.Tech. in Mechanical Engineering Examination, 2022	1801732	Abhinav Kumar Dubey	9.33
65.	B.Tech. in Footwear Technology Examination, 2022	1801693	Gargi Mishra	9.05
66.	B.Tech. (Part Time) in Electrical Engineering Examination, 2022	1704367	Man Mohan Singh	7.82
67.	B.Sc. Examination, 2022	2002667	Arpan Agarwal	9.64
68.	Integrated Dual Dip.-Degree Voc. Dip. In I.T. & B.Sc. Comp. Sci. Examination, 2022	1906331	Kanika Sharma	9.17
69.	B.A. (Social Science) Examination, 2022	2004598	Mansi Dixit	9.60
70.	B.A. (Social Science) Transdisciplinary Examination, 2022	2005668	Tanu Rajput	8.42
71.	B.B.A. Examination, 2022	2004390	Anjali Khanna	9.68
72.	B.B.A. (Logistics) Examination, 2022	2003651	Muskan Asnani	9.70
73.	B.B.A. (Retail) Examination, 2022	2005718	Tanupriya Agarwal	9.33
74.	B.A. Honours (Drawing & Painting) Examination, 2022	1901122	Anjali Khushwah	9.07
75.	B.A. Honours (English) Examination, 2022	1901119	Anisha Kulshrestha	8.98
76.	B.A. Honours (Hindi) Examination, 2022	1901307	Tanisha Tripathi	9.68
77.	B.A. Honours (Music) Examination, 2022	1901164	Dolly Solanki	9.86
78.	B.A. Honours (Sanskrit) Examination, 2022	1901253	Priya Varshney	9.90
79.	B.F.A. Examination, 2022	1801339	Tanishka Tiwari	9.26
80.	B.Sc. Honours (Home Science) Examination, 2022	1900613	Priyanka Singh	9.23
81.	B.Com. Honours Examination, 2022	1950074	Yukti Jain	9.55
82.	B.Com. Honours (Corporate Accounting & Law) Examination, 2022	1901583	Kartik Gupta	8.74
83.	B.Com. Honours (Transdisciplinary) Examination, 2022	1906941	Akash Vashistha	7.05
84.	B.Sc. Honours in Applied Botany Science Examination, 2022	1904450	Manjari Gupta	9.56
85.	B.Sc. Honours in Agriculture Examination, 2022	1806245	Ram Surat Sharma	9.30
86.	B.Sc. Honours (Botany) Examination, 2022	1905032	Vidushi Bhaskar	9.82
87.	B.Sc. Honours (Chemistry) Examination, 2022	1904987	Sakshi Saxena	9.72
88.	B.Sc. Honours (Cognitive Science) Examination, 2022	1904926	Manvi Jain	9.70
89.	B.Sc. Honours (Computer science) Examination. 2022	1905024	Tanu Kaur	9.85
90.	B.Sc. Honours (Mathematics) Examination, 2022	1904914	Kashika Bawa	9.77
91.	B.Sc. Honours (Physics) Examination, 2022	1904974	Ritika Katara	9.65
92.	B.Sc. Honours (Zoology) Examination, 2022	1905037	Yashshvi Dubey	9.32
93.	B.A. Honours (Social Science) (Cognitive Sc.) Examination, 2022	1903951	Kriti Paliwal	9.40
94.	B.A. Honours (Social Science) (Economics) Examination, 2022	1903967	Muskan Khatri	9.33
95.	B.A. Honours (Social Science) (Political Science) Examination, 2022	1903900	Anu Tiwari	9.88
96.	B.A. Honours (Social Science) (Psychology) Examination, 2022	1901143	Ayushi Sharma	9.73
97.	B.A. Honours (Social Science) (Sociology) Examination, 2022	1903936	Isha Shrivastava	9.88
98.	B.B.A. Honours Examination, 2022	1901698	Kalyani Bansal	9.90
99.	B.B.A. Honours (Logistics) Examination, 2022	1902547	Sankalp Mahajan	9.78
100.	B.B.A. Honours (Retail) Examination, 2022	1904334	Aditya Mukerjee	9.49
101.	B.Voc. (Apparel Design) Examination, 2022	1902774	Kanika Goyal	8.95

102.	B.Voc. (Ceramic & Pottery Design) Examination, 2022	1902974	Namrata Wadhvani	7.35
103.	B.Voc. (Ceramic & Pottery Design) Examination, 2022	1902981	Muskan	7.35
104.	B.Voc. (Commercial Art) Examination, 2022	1902950	Saloni Agarwal	8.66
105.	B.Voc. (Food Processing) Examination, 2022	1903047	Naman Dutta Sharma	9.09
106.	B.Voc. (Textile) Examination, 2022	1902862	Shristi Gupta	8.67
107.	B.Voc. (Tourism & Hospitality Management) Examination, 2022	1902902	Hukam Singh	9.09
108.	B.Voc. (Accounting & Taxation) Examination, 2022	1904283	Mansi Jethi	9.32
109.	B.Voc. (Automobile) Examination, 2022	1903099	Kamendra Singh Rana	9.26
110.	B.Voc. (Artificial Intelligence & Robotics) Examination, 2022	1906450	Isha Jain	9.65
111.	B.Voc. (Digital Manufacturing) Examination, 2022	1906502	Deepsehil	9.50
112.	B.Voc. (Renewable Energy) Examination, 2022	1903158	Brijmohan Katara	9.13
113.	B.Voc. (Water, Sanitation & Waste Management) Examination, 2022	1901415	Nandini Verma	8.94
114.	B.Voc. (Agriculture Technology) Examination, 2022	1904545	Sohit Kumar	8.71
115.	B.Voc. (Dairy Technology) Examination, 2022	1904594	Rashi Dixit	9.56
116.	B.Voc. (Greenhouse Technology) Examination, 2022	1904651	Lovely Sharma	9.04
117.	B.Voc. (Internet of Things) Examination, 2022	1904720	Shruti Vij	9.49
118.	B.Voc. (Telecommunication) Examination, 2022	1904742	Akanksha Baghela	9.22
119.	B.Voc. (Telematics) Examination, 2022	1904818	Shubham Kumar	8.30
120.	B.Voc. (Banking & Finance) Examination, 2022	1902582	Bavneet Kaur	9.46
121.	M.A. (Drawing & Painting) Examination, 2022	2005082	Deeksha Agarwal	9.37
122.	M.A. (English) Examination, 2022	2005107	Rashi Mishra	9.33
123.	M.A. (Hindi) Examination, 2022	2005127	Shivani Chauhan	9.10
124.	M.A. (Music) Examination, 2022	2005147	Suvarna Sharma	9.78
125.	M.A. (Sanskrit & Culture) Examination, 2022	2005162	Chandrakanta	9.86
126.	M.A. (Theology) Examination, 2022	2005319	Arati Swaroop	9.87
127.	M.Sc. (Home Science) Examination, 2022	2005184	Pragya Singh	9.57
128.	M.Com. Examination, 2022	2050051	Anmol Kaur Sethi	9.48
129.	M.Com. (Corporate Accounting & Law) Examination, 2022	2005982	Bela Bansal	9.55
130.	M.Ed. Examination, 2022	2000958	Preeti Dawer	9.28
131.	M.Tech. (Engineering Systems) Examination, 2022	2002396	Shubham Bhardwaj	9.43
132.	M.Sc. (Botany) Examination, 2022	2004021	Shreyashi Bansal	9.78
133.	M.Sc. (Chemistry) Examination, 2022	2003987	Pankhuri Singh	9.31
134.	M.Sc. (Computer Science) Examination, 2022	2003814	Nitesh Singh Bhadouria	9.87
135.	M.Sc. (Mathematics Spl. Computer Applications) Examination, 2022	2004083	Prachi Garg	9.40
136.	M.Sc. (Physics) Examination, 2022	2004103	Arunima	9.69
137.	M.Sc. (Zoology) Examination, 2022	2004132	Pranay Bhatnagar	9.49
138.	M.A. (Social Science) (Applied Economics) Examination, 2022	2001916	Muskaan Gupta	9.44
139.	M.A. (Social Science) (Political Science) Examination, 2022	2002541	Anjali Verma	9.43
140.	M.A. (Social Science) (Psychology) Examination, 2022	2004228	Sumiran Pullan	9.76
141.	M.A. (Social Science) (Sociology) Examination, 2022	2004493	Saloni Lakhwani	9.63
142.	M.A. (Social Science) Spl. Business Management Examination, 2022	1906923	Nehra Anand	9.43
143.	M.B.A. (Business Management) Examination, 2022	1906601	Akanksha Agrawal	9.69
144.	M.B.A. (General Management) Examination, 2022	2004333	Shalini Mittal	9.48
145.	M.B.A. (Agricultural Management) Examination, 2022	2000878	Ayushi Singh	8.77
146.	M.B.A. (Innovation, Entrepreneurship & Venture Development) Examination, 2022	2004518	Ayushi Behl	8.97
147.	M.B.A. (Waste Mngt. & Social Entrepreneurship) Examination, 2022	2004210	Vishal Sharma	8.08
148.	M.Voc. (Apparel Design) Examination, 2022	2005191	Ayushi Mishra	7.44
149.	M.Voc. (Textile) Examination, 2022	2005255	Twinkle Negi	9.62
150.	M.Voc. (Food Processing) Examination, 2022	2005215	Jahnavi Chauhan	9.23
151.	M.Voc. (Renewable Energy) Examination, 2022	2003459	Harshvardhan Chaoke	8.98
152.	M.Voc. (Dairy Technology) Examination, 2022	2004364	Mansi Sharma	9.15

153.	M.Phil. (Home Science) Examination, 2021	2006521	Deeksha Sharma	8.09
154.	M.Phil. (Theology) Examination, 2021	2006512	Harsh Vardhan	9.95
155.	M.Phil. (Commerce) Examination, 2021	2006406	Liya Varghese	9.73
156.	M.Phil. (Botany) Examination, 2021	2006244	Richa Upadhyay	9.39
<b>President's Medal For Securing Highest Grade Point In -</b>				
157.	All Undergraduate Examinations, 2022	1904846	Aman Pratap Singh	9.77
158.		1905024	Tanu Kaur	9.77
159.	All Postgraduate Examinations, 2022	2006512	Harsh Vardhan	9.95

# Institute Finance



## a. Institute Funds

<b>Endowment Funds</b>	<ul style="list-style-type: none"> <li>• Diamond Jubilee Fund</li> <li>• Gold Medal Fund</li> </ul>
<b>Earmarked Funds</b>	<ul style="list-style-type: none"> <li>• Establishment (Pension Fund)</li> <li>• Solar Maintenance Fund</li> </ul>
<b>Other Funds</b>	<ul style="list-style-type: none"> <li>• Employees Welfare Fund</li> <li>• DEI Employees Credit &amp; Thrift Society</li> <li>• Restricted Funds (Sundries)- AADEIs for Equipment and ICT Amritsar.</li> </ul>

## Main source of income

1. UGC grant for (a) Revenue for Salary & Pension & (b) BSR Research start-up etc.
2. UP Government for Salary & NSS
3. Sponsored Projects from DST, ICSSR, ISRO, AICTE, Ministry of Education and Ministry of Steel etc.
4. Other source of Income
  - a. Fees
  - b. Income from Interest
  - c. Contribution by Trust
  - d. Contribution by Alumni Associations

During the financial year 2022-2023, the Institute received grant of Rs. 5083.25 lakhs for salary and pension from UGC. The UP Government sanctioned a grant of Rs. 2335.77 lakhs as Regular Salary and Rs. 11.51

lakhs for NSS. The total income (excluding salary & pension) from Institute sources amounted to Rs. 1943.21 lakhs.

Total expenditure of the Institute for the year 2022 - 2023 was Rs. 10262.57 lakh out of which Rs. 424.57 lakhs were spent on Infrastructure. The Unit Cost for the year 2022-23 (without salary) was Rs. 13461/-.

### Sponsored Research Projects

During the session 2022-23, the Institute received grants for various research projects worth Rs. 155.60 lakh sponsored by DST, UGC, ICSSR, ISRO, SERB, MNRE, 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	19.20
2	SERB	10.03
3	ICSSR	2.02
4	ISRO	10.00
5	AICTE	4.63
6	NABARD	3.62
7	Ministry of Textile	7.27
8	Ministry of Steel	15.30
9	Ministry of Education	77.31
10	UGC BSR	6.22
	TOTAL	155.60

### Fellowship and Scholarships

During the session 2022-23, 149 students received fellowship in the form of JRF, SRF and 1258 students received scholarship. A summary of the fellowships and scholarships is given below -

Sl. No.	Sanctioning Agency	No. of Students	Payment Mode
<b>A - FELLOWSHIP</b>			
1	UGC NET JRF	78	Web portal
2	UGC Maulana Azad fellowship	3	Web portal
3	UGC National fellowship for SC & ST	14	Web portal
4	UGC National Fellowship for OBC	18	Web portal
5	DST Inspire	6	PFMS
6	CSIR	6	Through Institute
7	ICSSR	23	PFMS
8	UGC - BSR	1	PFMS
	Total Fellowship	149	
<b>B - SCHOLARSHIP</b>			
1	AICTE (J&K)	15	Through Institute
2	UP Govt.	1243	DBT
	Total Scholarship	1258	

## 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 interest 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 the aesthetic sense and awaken the finer sensibilities. 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 (Arts/Fine Arts)/ B.Sc. Honours (Home Science), B.F.A., B.Voc. (AD), B.Voc. (FP&P)
- Post Graduate: M.A., M.Sc. (Home Science), M.Voc. (AD), M.Voc. (FP&P)
- PhD: in all six subjects
- 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 of drawing and painting is headed by Prof. (Dr.) Meenakshi Thakur, additionally the department has 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 Textiles, Ceramic & Pottery Design, Commercial Art and Recycled craft design, 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 effort towards empowerment and development of students of fine art and been imparting creativity through the diverse range of creative activities and mode 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.

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

A Project on Natural Dyes, under NABARD was sanctioned on November 23, 2022

### **Faculty/Staff Achievements/ Awards/ Faculty Development Programme**

- Dr. Vijaya Kumar, was invited as the Guest Artist in National Art Camp organized by State Lalit Kala Academy, Lucknow Uttar Pradesh in collaboration with Master Sansar Chandra Baru Memorial Trust at Patnitop, Jammu & Kashmir, from 17 - 22 September, 2022. Dr. Vijaya Kumar's paintings and paintings of eight students of the department were selected in the Regional Art Exhibition, organized by Lalit Kala Sanasthan Dr. Bhimrao Ambedkar University and LKA, Uttar Pradesh, Ministry of Culture, Govt. of India from 9 -11 May, 2023.
- Dr. Namita Tyagi was invited as the Chief Guest for the Inaugural Ceremony of APSA Fiesta the cultural Event of APSA (Association of Progressive Schools of Aga) Drawing and Painting Competition on 8 October, 2022.
- Dr. Kanchan Kumari was awarded Manikarnika Amrita Sher-Gil Award in the National Online Art Exhibition & Competition organized by Manikarnika Art Gallery held from 10 to 20 August, 2022.
- Arti Kumari, final year student of Bachelor of Fine Arts (BFA) Sculpture specialization, was invited as a Young Sculptor to participate in tattoo an International Sculptors Symposium organized by School of Visual Arts, World University of Design (WUD) Sonipat held from 14 to 28 March, 2023.
- Tulika Tiwari, participated and presented a poster on the Topic of Artistic Appreciation of toys of Harappan Civilization, in the Poster Presentation on Emerging Perspectives of the Harappan Civilization at IIT Gandhi Nagar, Archaeological Sciences Centre, organized by Indira Gandhi Centre for The Art and Ministry of Culture, Govt. of India held from 10 to 12 February, 2022.
- Four final year students of Bachelor of Fine Arts (BFA) and one student of BBA (So.Sci.) participated in the 18<sup>th</sup> International Youth Festival 'GHOOMER' and won Nine prizes in all Fine Arts Competitions organized by University of Rajasthan, held from 5 to 6 April, 2023.
- DEI also won the Overall Championship Trophy for the excellent show. Students and their winning events are as follows:
  - ✓ Chinki – I in on the Spot Painting and Mehendi
  - ✓ Garima Singh– I in Rangoli
  - ✓ Vaishali Singh - II in Collage Making, Grafitti and Mandana
  - ✓ Gunjan Sharma - III in Poster Making and Cartooning
  - ✓ Nisha Kumari - III in Face Painting

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

- The Department organized a Digital Exhibition in commemoration of Veer Bal Diwas on 26 December, 2022 to honor the martyrdom of Baba Fateh Singh and Baba Zorawar Singh, the Sahibzade of 10<sup>th</sup> Guru Gobind Singh Ji. The event was a part of 'Azadi Ka Amrit Mahotsav' (AKAM) under the aegis of Ministry of Culture.
- The Department organized a 10 days National Workshop Anupam Prastar Srajanotsav Sculpture Camp-2022, from 19-28 December, 2022. Four subject experts and eminent sculptors- Mr. Ravi Mishra from Jaipur, Mr. Sujit Kumar Karan from West Bengal, Mr. Sanjay Rajwar from M.S. University, Vadodara, Mr. Shiv Kumar Verma from Vadodara and Dr. Lucky Tonk from D.E.I. demonstrated their creative, genius giving beautiful forms to their abstract ideas on massive stones.

- A Talk by an eminent sculptor and artist- Mr. Sanjay Rajwar from M.S. University, Vadodara, focusing on creative thinking and its artistic execution showcasing his own fabulous Artworks was organized on 26 December, 2022.
- The Department organized a 15-day Workshop on Wall Painting at Anupam Upwan from 15 to 30 November, 2022.
- The Department organized a 10-day Workshop on Folk Wall Painting on themes related to Value-based Education and Indian Culture in different folk styles, from 19 - 28 December, 2022. 20 scholars and 120 students of other departments participated in the program.
- The Department organized a 20-day Workshop on Wall Mural Art, from 25 January to 20 February, 2023. 65 students of BFA participated.

### Department of Textile

- The department organized two-day Workshop on Fabric Painting & Pipli Art in collaboration with Fevicryl (Pidilite) on 9 and 10, January 2023. The department participated in the G-20 in Shilphaat organised at Shilpgram Agra during the visit of honourable guests of G-20, from 10 to 12, February, 2023. The department also organized a Job Fair Swavlamban, Empowering Future. DEI & DEI-DEP jointly with The Association of Alumni of Dayalbagh Educational Institutions (AADEIs), on 20 May, 2023 at Noida.

### Workshops/Conferences/Seminars/Webinars Attended

- Dr. Sonika, participated in Two Days Workshop on Integration on Music in Teaching- Learning organized by School of Education, Faculty of Education, Dayalbagh Educational Institute, Agra on 2 & 3 December, 2022. She also presented a paper in a National Conference entitled राजस्थान की इन्द्रधनुषी सांझी का कलात्मक विश्लेषण on राजस्थान की कला एवं संस्कृति, organized by, Janardan Nagar Rajasthan Vidhyapeeth, Udaipur in association with Lokjan Sewa Sansthan, Udaipur, on 14 February, 2023.
- Dr. Namita Tyagi and Dr. Sonika, participated in an online Professional Development Workshop on Digital Creativity Skills organized by, AICTE, ATAL and Adobe Academic Essentials programme.
- Bhawna Rathore and Namita Tyagi, presented a paper in a National Seminar on Rajasthan Ki Kala avam Sanskriti entitled राजस्थान के डूंगरपुर में स्थित जूनामहल के भित्तिचित्रों का कलात्मक अध्ययन, organized by, Janardan Nagar Rajasthan Vidhyapeeth, Udaipur, in association with Lokjan Sewa Sansthan, Udaipur on 14 February, 2023. Namita Tyagi also participated in a two-day Workshop on Integration on Music in Teaching-Learning organized by School of Education, Faculty of Education, Dayalbagh Educational Institute, Agra, on 2 & 3 December, 2022.
- Dr. Vijaya Kumar, presented a paper in the National Seminar on Rajasthan Ki Kala avam sanskriti organized by, Janardan Nagar Rajasthan Vidhyapeeth, Udaipur, in association with Lokjan Sewa Sansthan, Udaipur, on 14 February, 2023.
- Dr. Kanchan Kumari, participated in a National Workshop on Art, Creativity & Beauty'' organized by, Drawing and Painting Department, Maharani Laxmi Bai Govt. Girls PG Autonomous College, Bhopal, on 10 and 11 January, 2023. She also participated in an online Folk Art competition Kala Sanskriti organized by Kala Aakar Foundation Reg: NCT of Delhi Govt. on 21 November, 2022 and in an International online Art Exhibition on the occasion of World Environment Day, organized by Maharani Lakshmi Bai Govt. Girls P.G. College and EKAGRAH Art Culture & Heritage, Indore on 5 June, 2022. She also participated in ''BORNKA- II, India's Biggest Online Art Competition'' organized by Swami Vivekananda Foundation of Art & Culture, A Charitable Trust Registered under section 60 and Rule 69 in February, 2023. She also participated in the event International online Art Competition organized by Maharani Laxmi Bai Govt. Girls P.G. College and EKAGRAH on the occasion of Republic Day on 26

January, 2023 and in an exhibition on Rabindranath Tagore Kala Samman project of Ajanta Ellora International Art Gallery, Aurangabad, Maharashtra on 15 January, 2023.

### Placements

The students of the Department got placed in various firms, Universities and reputed companies at various posts like Bharat Pottery, Lovely Professional University, Delhi Public School, CMG Global Technologies Pvt. Ltd., Bachpan Play School, John Milton Public, SKD, Senior Secondary School, St. Stephens Public school Agra, Baluni Public School, Holy Public School Agra, Cosmo Informatics Private Ltd., Agra, Miira Lights, Agra, comic illustrator in Shree Diwaker Prakash book publisher and Seller, Job Aaj, Corporate Park, Sanjay Place, Fintech Global Centre, Ahmedabad, Ink PPT, Gurugram, Digital Jalebi, Noida, Gary Global Solutions, Noida, Pinnacle, Noida, Sahu Export, Noida, Sara Creation INC., Noida, Ved Export, Jaipur, Magnolia Martinique Pvt Ltd., Noida, V.S. Textile, Jaipur, Sheer Mangal export Company, Jaipur, Ronak Textile, Jaipur, New Creation Company, Jaipur, Textile/Fashion Designer, Anany Expo, Jaipur, Cheena Textiles, Jaipur, V.S. Textiles, Jaipur.

### Publications

- Sonika (2023). मनकोट लघुचित्र शैली मुख्य वैष्णव धर्म के सन्दर्भ, शोध मंथन, 57-63, ISSN: 0976– 5255(P).
- Renu, Sonika (2023). विसेंट वान गाग की छवि का चित्रांकन पर प्रभाव, International Journal of Research and Analytical Reviews (IJRAR), 10 (3), 107-113, ISSN: 2349– 5138(P).
- Tulika Tiwari, Namita Tyagi, (2023). भारतीय लघु चित्रकला में चौपड़ खेल चित्रों का विशेष अध्ययन, शोध मंथन, 131-137, ISSN: 0976– 5255(P)
- Namita Tyagi, (2022). लोक शैली के सार्थक प्रतिनिधि नंदलाल बसु के हरिपुरा पोस्टर, Shodkosh: Journal of Visual Arts, 3(1),389-396, ISSN (Online):25582-7472
- Shivani, Namita Tyagi, (2022). ओडिशा राज्य संग्रहालय में संग्रहित चित्र तदपत्र पोथियों का तुलनात्मक अध्ययन, शृंखला एक शोधपरक वैचारिक पत्रिका, 12(12), ISSN(P):2321-290X (E)2349-980X.
- Shivani, Namita Tyagi, (2022). ओडिशा में तदपत्र गीतगोविंद पोथियों की संयोगात्मक परंपरा, Shodkosh: Journal of Visual Arts, 3(1), 389-396, ISSN (Online):25582-7472
- Meenakshi Thakur, (2022). Sayed Haider Raza- A celebration of Nature, Shodhkosh: Journal of Visual and Performing Arts, 3(2), 66-72, ISSN 2582-7472.
- Meenakshi Thakur, (2022). Innovation and skilling through Commercial Art, Art land, 31, 3-4.
- Meenakshi Thakur, (2022). Kinetic art drawings with Aum (Aumkara Series) by Narendra Srivastava (CJAD V6N2/Painting), The Chitrolekha Journal of Art and Design, 6(2), ISSN-2456-978X.
- Meenakshi Thakur, (2022). The role of creative arts in child development, innovation the research concept, 7(11), ISSN-2456-5674, RNI; UPBIL/2016/68367.
- Sonika, (2022). Folk-Style Traditions in Indigenous Art of Jamini Roy, ShodhKosh: Journal of Visual and Performing Arts, 38-45, ISSN:2582– 7472(O).
- Sonika, (2022). Amalgamation of Painting and Music, Artistic Narration, 72-77, ISSN: 0976– 7444(P).

### Department of Music

The Department of Music came into existence in the year 1955 In the 1970s the total number of students offering to study Vocal Music, Sitar and Tabla was 50. Besides regular teaching periods the Department used to arrange for students to practice during their free periods. The Department was housed in Tej Punj. The Department was known as Women's Training College Dayalbagh, affiliated to Agra University (Dr. Bhim Rao Ambedkar University) Since 1981, as part of newly established Dayalbagh Educational Institute Deemed University, Dayalbagh Agra it has become an integral part of Faculty of Arts and also an Indispensable Department of the University. The Department was opened in the beginning with only one

stream i.e. Indian Classical Vocal Music for under graduate classes. Later on, under graduate classes in Sitar and Tabla were also introduced. In 1976 Post Graduate classes in Sitar and Vocal in Music were introduced and later on post-Graduation in Tabla was also introduced. In present time the Department is running the following courses in all the three streams of Music i.e. Vocal, Sitar and Tabla.

The Department is well equipped with sufficient musical instruments and the best possible model of 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.

**Facilities in the Department** - The department has well equipped Musical Labs, Well Furnished Classrooms, Demonstration Hall with Sound Facilities and a Sound Proof music Studio. Work Experience is also a unique feature of the department with permanent technical staff.

**Ongoing Research Projects** - UGC-SAP DRS- II

### **Faculty/Staff Achievements/ Awards/ Faculty Development Programme**

- Prof. Lovely Sharma was a Special guest at Sriram- Ek Yatra Ayodhya Se Mithila Tak organized by Lalit Kala Sansthan, Agra on 12 June, 2023. She participated as an invited expert in a symposium, The Highway to Healing: Understanding the Ocean of Oneness, organised by M K Gandhi Peace Centre, California State University, Fresno from 3-4 October, 2022. She also conducted a Sitar Workshop Lovely Sharma in Prem Vidhyalaya on 23 November, 2022.
- Dr. Shivendra Pratap Tripathi performed Tabla in a Musical Concert Kulgrinda with Lithuanian artists at Lalit Kala Sansthan, Agra in February 2023. He also performed Tabla Solo in a Musical Concert Guruvar Sangeet Samaroh at Bhartiya Sangeetalaya, Agra in May 2023.
- Dr. Gautam Tiwari performed Classical Vocal Solo in a Musical Concert Taj Mahotsav at Soorsadan, Agra on 21 February, 2023.
- Archa Srivastava participated in Tabla Solo and Indian Folk Group Song and got II<sup>nd</sup> Prize in both events in the 18<sup>th</sup> International Youth Festival entitled GHOOMAR from 5-6 April, 2023, organized by University of Rajasthan, Jaipur.
- Rekha qualified NET (2023) and Monika and Pranali qualified JRF (2022).
- Many of the Students are free-lance Performance and run their own Musical Institutions also.

### **Workshops/Conferences/Seminars/Webinars Organized -**

- A Conference was organized by the department on Education Policy of India for the Coming Decade, on July 7, 2022. The special invited guest for the lecture was Prof. Veena Chandra (Sitar) from Dehradun. Another Conference (Bhasha utsav) was organized Education Policy of India for the Coming Decade, on 10 December 2022, February 3 and 10, 2023 and March 27, 2023 with Smt. Kajal Sharma (Kathak) from Delhi and Shri S. D. Srivastava (Violin) from Agra and Pt. Prabhat Vashishth (Tabla) from Agra respectively as the invited guests.

### **Workshops/Conferences/Seminars/Webinars Attended -**

- Music Department participated in Indian Folk Group Song and got II<sup>nd</sup> Prize in 18<sup>th</sup> International youth Festival entitled GHOOMAR from 5-6 April, 2023, organized by University of Rajasthan, Jaipur.

### **Placements -**

- Dr. Neetu Kumari got placed as a Technician in Dayalbagh Educational Institute in 2022.
- Mr. Bhanu Pratap Singh and Ms. Gayatri got placed as a Tabla Accompanist in Dayalbagh

Educational Institute in 2022.

### Publications

- Lovely Sharma (2022). *A Psycho – Musical Therapeutic study of changing pattern of Attitude of Jail Criminal at Agra, Woman in the 21 Century Indian Woman Nobles* by Dr. Visweswara Rao Chenamallu, ISBN: 978-81-19149-05-6
- Lovely Sharma (2022). *Pt. Braj Bushan Kabra and Guitar*, कलाकार एवं स्वतंत्रता संग्राम, ISBN:978-81-956-774-4-3
- Bhanu Pratap Singh (2022). दादरा: एक विशिष्ट गायन शैली एवं ताल प्रकार-तबला संगत के सन्दर्भ में, 'STOM' Kala Abhivvyakti ka Madhyam, ISSN 2231-1041.
- Ous Satsangi (2022). मध्य प्रदेश के आदिवासी राज्य राजबरारी में प्रचलित पर्व, *Aadhar*, 358, 69, ISSN-2278-9308.
- Darash Adhari (2022). मीराबाई जी द्वारा रचित काव्य मीराबृहत्पदावली में निहित चंचल प्रकृति के रागों का बाहुल्य, *Aadhar*, 344, 68, ISSN-2278-9308.
- Darash Adhari (2022). महान संत तुलसी साहेब द्वार रचित साहित्य में निहित लोक विधायें, *Aadhar*, 375, 72, ISSN-2278-9308.
- Mahima Sinha (2022). *Barahmasa by Param Purush Dhani Huzur Swami Ji Maharaj; The Supreme Lord's Revelation of Philosophy of Universe in a Singing*, *Aadhar*, 397, 14, ISSN-2278-9308.
- Neha Srivastava, बुन्देलखण्ड लोक संगीत के क्षेत्र में महिला कलाकारों का योगदान (विशेष गायन के क्षेत्र में), भारतीय लोक कलाकार, 117, ISBN: 978-81-956774-1-2

## Department of English Studies

The Department of English Studies has traversed a long way since its inception in 1947 in the erstwhile Women's Training College. It has taken long strides fledgling out from being a department offering only Graduate, Postgraduate, and Research programmes to becoming a full-fledged department offering Modular Courses, M.A. with specialization in Journalism and Mass Communication, and a Postgraduate Diploma in Journalism and Mass Communication (PGDJMC). It has also forayed into the area of comparative and multidisciplinary research incorporating the Systems approach, film studies, and language teaching. The department has achieved another momentous landmark by way of collaboration with the University of Kiel, Germany, and is engaged in organizing constructive and fruitful student exchange programmes from time to time. The department publishes the DEI News (monthly), the DEI Magazine, the DEI- DEP Newsletter (monthly) and the DEI-DEP Magazine. Equipped with a highly advanced Information Communication-Neuro-Cognition Technologies Assisted Language Lab, the faculty and the students have embarked upon multidisciplinary research and developing children's language skills from Primary to University level. The department has also set up a state-of-the-art e-classroom with seven computers, an internet facility, and a video conferencing facility for the transmission of classes in synchronous mode for the students of Journalism. The department also has a Desktop Publishing Lab with nine computers with an internet facility.

### Awards and Recognition

- Dr. Sonal Singh served in the capacity of Publication Committee Chair at the 46<sup>th</sup> (Inter) National Systems Conference (NSC 2023) of the Systems Society of India organized on 27 – 29 June 2023 at Dayalbagh Educational Institute jointly with the 5<sup>th</sup> International Conference on Dayalbagh (Art) Science (& Engineering) of (Evolutionary/Re-Evolutionary) Consciousness.
- Dr. Bani Dayal Dhir acted as a Chair of a Plenary Session at the 45<sup>th</sup> National Systems Conference from 30<sup>th</sup> September to 01<sup>st</sup> October 2022. She also gave an Invited Plenary Talk on the topic, *O Beings! Fondly Turn to Your True Home!: A Brief Analysis of Huzur Sahabji Maharaj's Play Deen O Duniya* at The 5<sup>th</sup> International Conference on Dayalbagh (Art) Science (& Engineering) of

(Evolutionary/Re-Evolutionary) Consciousness (DSC) and 46<sup>th</sup> (Inter) National Systems Conference (NSC) Evolution of Homo Sapiens to Homo Spiritualis for Better Worldliness held from June 27 to 29, 2023.

- Dr. Namita Bhatia served in the capacity of Publication Committee Chair at the 46<sup>th</sup> (Inter) National Systems Conference (NSC 2023) of the Systems Society of India organized on 27 – 29 June 2023 at Dayalbagh Educational Institute jointly with the 5<sup>th</sup> International Conference on Dayalbagh (Art) Science (& Engineering) of (Evolutionary/Re-Evolutionary) Consciousness.

### Students Achievements/ Awards

Two Research Scholars, Deepali Seth and Sugandha Khera cleared UGC NET Exam in English in September 2022.

### Workshops/Conferences/Seminars/Webinars Organized

A special One-Month Spoken English Workshop was organized by the Department of English for the students of class 6<sup>th</sup> of REI Intermediate School, DEI from 10<sup>th</sup> April to 10<sup>th</sup> May 2023 at (i-c-n-c) TALL, DEI.

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

- Dr. Shashi Srivastava attended an Online Two-Week Refresher Course in English (June 18, 2023 to July 2, 2023) from Teaching Learning Centre and Department of English, Ramanujan College, University of Delhi, New Delhi.
- Prof. Gurpyari Jandial presented a paper entitled, Dystopian Fascism to Spiritual Utopianism: A Systemic Study of the Contrasting Worlds of Golding's Lord of the Flies and the Garden of the Merciful at the 45<sup>th</sup> National Systems Conference from 30 September to October 1, 2022.
- Dr. Sonal Singh presented a paper entitled, Evolution of Spiritual Consciousness in RK Narayan's The Vendor of Sweets at the Dayalbagh Science of Consciousness (DSC 2022) Conference on 30<sup>th</sup> September 2022 held at Dayalbagh Educational Institute, Dayalbagh, Agra-5.
- Dr. Sonal Singh and Deepali Seth presented a paper entitled, The pursuit of completeness in Girish Karnad's Hayavadana at the 46<sup>th</sup> (Inter) National Systems Conference (NSC 2023) of the Systems Society of India organized on 27 – 29 June 2023 at Dayalbagh Educational Institute jointly with the 5<sup>th</sup> International Conference on Dayalbagh (Art) Science (& Engineering) of (Evolutionary/Re-Evolutionary) Consciousness.

### Publications

- Shashi Srivastava, (2022). Hold the Falling Beeds...exhorts Nissim Ezekiel in Language Forum Journal, Vol. 48 No.1 & 2, (ISSN 0253-9071)

## Department of Hindi

The Department of Hindi offers various languages lab 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।

### Workshops/Conferences/Seminars/Webinars Organized

- 31 जुलाई प्रेमचंद जयंती का आयोजन

- 14 सितंबर हिन्दी दिवस का आयोजन
- 21 दिसंबर से 31 दिसंबर 2022 में साहित्य उत्सव कार्यक्रम का सफलतापूर्वक आयोजन
- 7 मई 2023 टैगोर जयंती का आयोजन

### Placements

दो शोध छात्राओं का दिल्ली विश्वविद्यालय के कॉलेज में गेस्ट फ़ैकल्टी के रूप में चयन

## Department of Home Science

Home Science education aims at getting maximum satisfaction for the person and their family members through the efficient and scientific use of your resources. Over the years, the Home Science department at DEI has grown leaps and bounds in stature to emerge as a prominent Home Science programme in the country. It offers various programmes like B. Sc., B.Voc, M. Sc., M.Voc, and Ph. D. The syllabus has a practical orientation and renders the requisite knowledge and skills required for the specializations offered. The department is headed by Prof. Sangita Saini and has 1 Professor, 10 Assistant Professors and 1 Emeritus Professor. The scope of Home Science in present day context has widened and it has taken its turn towards extension and outreach activities, skill development and entrepreneurship. The recent additions to the list of programmes include vocational programmes such as B.Voc and M.Voc programmes in Apparel Design and Food Processing and Preservation. This is also in line with the objectives of Ministry of Skill Development and Entrepreneurship, Government of India.

The department conducts state-of-the-art research in the 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 a MOU with Department of Biotechnology in connection with a foldscope project and the Food Processing & Preservation Lab of the department received "fsai" Certificate from the Department of Food and Drug Administration, Government of Uttar Pradesh under Food Safety and Standards Act 2006, License Number: 12718001000446. The department focusses 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 enterprise 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 designing, Focusing on retail strategies for marketing of products developed by the students through online portals and in-house display cum 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 Oxy fryer, OTG, Microwave oven, Hot air oven, Refrigerators, Deep Freezers, Lug capping machine, Insulates filling machine, Fruit mill, Hydraulic press etc.

### **Staff Achievements/Recognitions**

- Prof. Madhulika Gautam received "Excellence in Extension Award" in International Conference in Hybrid Mode on "Global Research Initiatives for Sustainable Agriculture & Allied Sciences" from 21-23 November, 2022 organized by Astha Foundation, Meerut (U.P.), India.
- Dr. Seema Kashyap was invited as the Guest of Honour & Judge –Millets Mela-Ministry of Food Processing Industries, Govt. of India, in 2023. She also received the Certificate of Appreciation in Joint Workshop organized by DEI & FSSAI, in 2022 and a Certificate of Appreciation for contribution in the Master Trainers Program of Unnat Bharat Abhiyan, DEI.
- Dr. Richa Verma was invited as a key resource person in one Week FDP on Research Methodology, organized by Saksham Society (A world record holder NGO), Jaipur from 1- 8 May, 2023 on Plagiarism and Citation. She also received International Lady Legend Award - 2023 from Saksham Society (A world record Holder NGO) for her achievement in the field of education.

### **Students Achievements/ Awards**

- Neha Agarwal, a Ph.D. Scholar won best poster presentation award on the paper A Review: Handicraft as Vocal for Local to Reduce Crop Residue Burning and its Effects in International Extension Education Conference on 'Innovative Applications in Agricultural Extension for Sustainable Food & Environment Security' organized by Dept. of Agricultural Extension Communication, Inst. Of Agri. Sciences, BHU, Varanasi (UP), India from 27-30 January, 2023.
- Rimjhim Pathak won best poster presentation award for presenting her research work titled Effect of Tartra zine on Lactobacillus plantarum in 63<sup>rd</sup> Annual International conference of Microbes & Society: Current Trends & Future Prospects (2022) Organized by Association of Microbiologists of India(AMI), University of Mysuru, CSIR-CFTRI, DRDO-DFRL, Karnataka Science and Technology Academy (KSTA), and JSS Academy of Higher education and research(JSSAHER) from 21-23 September, 2022.

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

- A Three-day Workshop (18-20 Oct. 2022) entitled Millet Based Product: Traditional as well as Bakery Products was organised in association with FSSAI under Eat Right Challenge Activity II, to celebrate World Food Day, 2022. 33 candidates participated in this Workshop. Hands-on training on the preparation of millet-based value-added products was provided by Dr. Charul Chaudhary, Assistant Professor, Department of Home Science.

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

- Dr. Madhulika Gautam participated in the national winter school in online mode entitled Emerging Problems and Recent Advances in Applied Sciences: Basic to Molecular Approaches from February 26–March 18, 2023, organised by the Astha Foundation, Meerut (U.P.) India. She also presented a poster entitled College students' perspective on online teaching and learning methods during covid-19 pandemic: a study in Agra city' at the International Conference on 'Innovation and Incubation Opportunities in Home Science for Self-Reliance India' from December 15–17, 2022, organised by the Home Science Association of India, Kerala Chapter. She presented an oral paper entitled Impact of Intervention on Awareness of Women regarding Legal Provision toward Domestic Violence and a

poster entitled *An Intervention to Create the Awareness of Rural Women Regarding Ill Effect of Tobacco Consumption on Health* at International Conference in Hybrid Mode on Global Research Initiatives for Sustainable Agriculture & Allied Sciences from November 21–23, 2022, organized by Astha Foundation, Meerut.

- Dr. Seema Kashyap participated in Webinar Series on National Nutritional Week 2022, held from 1-7 September, 2022, organized by Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore, MP.
- Dr. Richa Verma participated in Online Refresher Course in Teacher Education held from 09- 23 May 2022 by the UGC Human Resource Development Centre, Aligarh Muslim University.
- Dr. Charu Swami participated in the Subject Refresher Course on Teacher Education from 23 June to 08 July 2023 organized by the UGC Human Resource Development Centre Aligarh Muslim University, Aligarh and obtained A+ Grade.
- Shreya Rajput and Dr. Charu Swami participated in International Conference on Contemporary Multidisciplinary Issues in Applied Science, Humanities, Agriculture, Animal Health & Production (ASHAA-2022), Banaras Hindu University on 14 -15 November 2022 and presented a research paper entitled, *Consumer's Attitude and Purchase Intention Towards Online Apparel Shopping*.
- Anjali Awasthi and Dr. Charu Swami participated in 34<sup>th</sup> International Convention of Textile Engineers and National Seminar of IE(I) on Innovative Textile Materials, Institution of Engineers, Indian Institute of Technology, Kanpur on 10-11 September 2022 and presented a research paper entitled, *Contribution of India Apparel Brands in achieving the goals set by Sustainable Association Coalition*.
- Prachi Varshney and Dr. Charu Swami participated in International Conference on Fashion, Apparel and Textile (INCFAT'21) organised by Amity University, Noida on 14-15 November 2022 and presented a research paper entitled, *Sustainable Apparel Design for Longevity: Review and Analysis*.
- Prachi Varshney and Dr. Charu Swami participated in 34<sup>th</sup> International Convention of Textile Engineers and National Seminar of IE(I) on Innovative Textile Materials, Institution of Engineers, Indian Institute of Technology, Kanpur 10-11 September 2022 and presented a research paper entitled, *Biomimetic textiles as an Innovative Approach towards Sustainability*.
- Sonali Johari participated in One-week Online Faculty Development Programme on Recent Tools and Techniques for Quality Research (RTTQR-2023) organized by Banasthali Vidyapith during 15-20 March 2023.
- Sonali Johri participated in International Webinar on Academic Writing organized by IQAC Government College (Autonomous) Rajahmundry, Kerala, India on 25 February 2023.
- Dr Charul Chaudhary presented paper on *Development of multigrain gluten free biscuits by using millets at 1<sup>st</sup> multidisciplinary international conference on Pre- and Post-Doctoral Research in India and World, March 2023*.

### **Publications**

- 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 & Experimentation, II (I), 20-24, (eISSN-2373-437X).
- Sharma, B., Kashyap, S., (2023). *Self Help Groups Contribute to Sustainable Development, Challenges & Opportunities*, Journal of Emerging Technologies and Innovative Research (JETIR), 10(2), ISSN-2349-5162.
- Verma R., (2023). *Strategies to Promote Inclusion and Equity in Offline and Online Learning Environment*, Quaderns Journal, 11(3), 308-312, ISSN: 1138-5790.

- Varshney Prachi, Swami Charu, (2023). Modularity Approach in Apparel Design: A Step Towards Sustainable Clothing, *International Journal of Textile and Fashion Technology*, 13(2), 1-10, ISSN- 2319-4510.
- Johri, S., Arora, H. (2023). Quality Evaluation & Shelf life testing of cookies prepared by using barley flour & fenugreek seed powder. *IJNRD*, 8(6), 2456-4184.
- Johri, S. (2023). Quality evaluation of flaxseeds & finger millets incorporated chikki. *International Journal of Home Science*, 9(1): 18-20.
- Johri, S. (2023). Organoleptic Evaluation of Noodles Supplemented with Soya Flour & Pumpkin Powder, *SPR*, 3 (1), 41-44.
- Kumar, I., P. Yadav, Gautam, M., Panwar, H. (2022). Impact of Heat on Naturally Present Digestive Enzymes in Food, *International Journal of Food, Nutrition and Dietetics*, 10 (2),57-63, ISSN:2322-0775.
- Yadav, P. Gautam, M, & Kumar, I., (2022). Undernutrition in India: Status and Government Initiative, *Women Empowerment in Modern Age*, 1, 5-10, ISBN: ISBN: 978-93-94819-09-2.
- Tyagi, K. & Gautam, M. (2022). Impact of the Widespread Corona Virus on dietary Behaviours in young Adults of the Agra District, *Contemporary Issues in Humanities*, 109-115, ISBN-978-93-94779-58-7.
- Gautam, (2022). Health and Nutrition challenges in India, increasing violence against health workers in India, 16-26, ISBN-978-93-5704-442.
- Verma R., (2022). Parental Perception Towards Content and Effects of Television Programs on Children *IJCRT*, *International Journal of Creative Research Thoughts (IJCRT)*, 10 (11),300-306, ISSN: 2320-2882.
- Rana Nimisha, Swami Charu, (2022). Role of Home Science Education in Women Empowerment and Sustainable Development, *International Journal of Education and Science Research Review*. 9(3), ISSN-2349-1817.
- Prachi Varshney, Charu Swami, (2022). *Frugal Innovation for Sustainable Fashion*, Aknik Publications, New Delhi.
- Nimisha Rana, Charu Swami. (2022) *Vocationalization of Home Science: A Contemporary Perspective*, Star Publications, Agra

### Books Published

- Saini, S., *Women's Empowerment through social Enterprise*, Adhyyan Books, 2022, ISBN:978-81-960668-2-6.
- Kumar, I. & Gautam, M. *Health and Nutrition challenges in India*; Bluerose Publisher Pvt.Ltd., 2022, ISBN: 978-93-5704-442-4.

### Placements

- Arushi Sharma got placed as an Assistant Merchandiser in Magnolia Martinique Clothing Pvt Ltd. Noida
- Deepa Srivastava got placed as an Assistant Merchandiser in Kishore Export, Agra
- Nidhi and Nisha Tyagi got placed as an Assistant Designer in Radiant Export Private Limited, Noida
- Prerna Gupta got placed as an Assistant Designer in Rainbow Fabart Pvt. Ltd. Noida
- Dr. Indresh Kumar placed as a Programme Coordinator for the Regional Center of Excellence Nutrition Rehabilitation Resource and Training at the Department of Pediatrics, 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 Faculty of Arts with the establishment of the Dayalbagh Educational Institute as a Deemed University in 1981. In 1986, regular post graduate degree classes started with course offered in 'Sanskrit and Culture'. From the session 2013-14 the department also offers specialization in Grammar at the post graduate level. M.Phil in Sanskrit started from January 2009. Integrated programme in Theology (P.G. Diploma, M.A., M. Phil & Ph. D.) are also being run by the department since 2009-10. The PG diploma on Theology is run internationally through its Centres at 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 one semester duration. These courses are compulsory for all Undergraduate students as well as students pursuing technical education (Technical College). The department also offers six semesters Work Experience course on Applied Sanskrit which tends to impart basic knowledge of Computer's to the students of Sanskrit. The department is making efforts to facilitate spoken Sanskrit and incorporation of Ethics and Indian Culture in 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 research areas of the department 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). Since 2016 the department publishes a research journal, "शोध-प्रतिभा" and two volumes- शिक्षा-विशेषांक और आर्ष-संत-साहित्य-विशेषांक have been published. The department has also acquired two copyright (A) Test Tube Baby in Sanskrit Literature Copyright No - L30372/2008 and (B) संत कबीर साहिब कृत अनुराग सागर Copyright No.- L-66071/2017.

### Staff Achievements and Awards

- Dr. Anita served as Chairperson in International Conference at Vikramaditya Shodhpeth, MP, held from 4 - 6 March, 2023. She attended UGC sponsored Refresher course on Vastu Vidya, from 6-19 September, 2022.
- Dr. Shobha Bhardwaj attended UGC sponsored Refresher course on Vastu Vidya, 6-19 September, 2022.
- Dr. Nishith Gaur was Conference Convenor for Conference of Sound Consciousness in Various Religions held in DEI, Sanskrit Department. She gave an Invited Lecture at Department of Linguistics Organizing Faculty Development Programme She was invited Editor for Journal Bohal Shodh Manjusha and was invited for Lecture for International Conference of भारतीय दर्शन एवं संस्कृत साहित्य में आचार्य विद्यासागर जी विरचित षटशती. She was also invited as Keynote Speaker in FDP on 'Indian traditions of Sanskrit literature', on 15 November 2022 at Dr. B. R. Ambedkar University, Agra.

### Ongoing Research Projects

1. Research Platform Lab for learning Sanskrit: I.C.N.C. TALL
2. Research Platform Center of Consciousness Studies and Theology
3. Research Platform: ATMA

### Workshops/Conferences/Seminars/Webinars Organized

- A special conference was organized by the Department of Sanskrit on International Conference on Sound Consciousness in Various Religions, from 7-8 February, 2023. The special invited guests for the lecture were Prof. Subhash Kak, Department of Computer Science, Oklahoma State University,

USA, Prof. Joy Sen, Head, Center of Excellence for Indian Knowledge System, IIT Kharagpur, Prof Bhagirathinanda, LBS Central University, New Delhi, Prof. Dharmendra, Gurukul Kangari, Uttarakhand, Dr. P. Ramanujan, Group Coordinator Indian Heritage Group, Bangaluru, Prof. Syed Tayyab Raza Naqvi, Chairman Dept. Shia Theology, AMU, Prof. Iqtidar Mohd. Khan, HoD Islamic Studies, Jamia Milia Islamia, Dr. Dayalpyari Srivastava, Physics Department, DEI, Prof. Marcell Silva Steuernagel, Professor of Church Music, SMU Perkins School of Theology.

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

- Dr. Rubina Saxena attended Gita Course – ISKCON Temple Delhi from 20-30 June 2023 in online mode.
- Dr. Anita presented paper, on जैन मुनि परम्परा एवं गाँधी दर्शन in International Seminar at Central Sanskrit University, New Delhi, 15 July 2022.

### **Publications**

- Dr. Anita, कालिदास का पारिवारिक चिंतन, Samagaqm Journal, April 2023.

## Faculty of Commerce

As a part of erstwhile REI Degree College, Commerce Faculty has the honour of being the oldest Faculty of Dayalbagh Educational Institute (Deemed University). B. Com Education in Dayalbagh started in 1947. The Faculty with two departments; Applied Business Economics and Accountancy and Law, is catering to the needs of ever-growing economic setting of the country since its inception.

Since July 2008, the Faculty is offering the B.Com. (Hons.) in different parts of the country including some remote tribal areas through the Open and Synchronous Learning program of the Institute. Commensurate with the Education Policy of DEI to bring about overall development of the student, the curriculum extensively focuses not only on the updated conceptual dimensions of various subjects offered by the two departments but also the students are required to carry out real-life project work. The latest curriculum design was introduced through the National Workshop on Commerce Curriculum in Changing Scenario organized by the faculty in the month of March 2008. Different forums of the faculty facilitate the placement and personality development programs for the benefit of the students. Over a period, faculty placement cell has made remarkable achievements in terms of on-campus and off-campus placement of students in companies of repute (IBM Daksh, American Express Bank, HDFC etc.) With regular participation in National and International conferences, seminars, workshops, and contribution to various journals of national and international repute, faculty members of both the departments continue to upgrade their knowledge. The faculty comprehensively focuses on research in the areas of Macro Economic Analysis, International Trade, Financial Reporting practices, Accounting Standards and Corporate Governance. Three major research projects have been sanctioned by UGC and some more proposals are submitted for approval. In the time to come, Commerce Faculty will continue to move on consistent growth path and provide the updated theoretical and practical knowledge to its students and scholars.

Programmes offered by the faculty are:

1. B.Com. (Hons.) (jointly with Dept. of Applied Business Economics)
2. B.Com. (Corporate Accounting and Law)
3. B.Voc. Accounting and Taxation
4. B.Com. (Hons) (Transdisciplinary)(jointly with Dept. of Applied Business Economics)
5. M.Com. (General) (jointly with Dept. of Applied Business Economics)
6. M.Com.(International Business) (jointly with Dept. of Applied Business Economics)
7. M.Phil. (jointly with Dept. of Applied Business Economics)
8. Ph.D.

The nucleus of Commerce Education is the accounting and financial analysis & reporting and modelling of real-life decision situations. Department of Accountancy & Law and Department of Business Administration cater to this ever-growing area under the aegis of Faculty of Commerce, with 5 Professors, 3 Assistant Professors. The department offers

- B.Com. (Hons),
- B.Com. (Hons) (Corporate Accounting and Law),
- B.Com. (Hons) (Transdisciplinary)
- B.Voc. (Accounting and Taxation),
- M.Com (General)
- M.Com. (International Business),
- M.Com. (Corporate Accounting and Law),

- Ph.D.

### **Department of Accountancy and Law**

Department is contributing significantly to impart most up-to-date and quality education to its students. To impart relevant quality education considering the present-day needs, the department offers various work based vocational courses in the area of Tax Planning and Management, Computer Applications in Accounting etc. The highly innovative value-based education system of the institute and well qualified, dedicated faculty members of the department attract meritorious and knowledge seeking students from all over the country. The department enjoys wide recognition which enables the graduating students securing admission in the higher degree/ professional courses within the institute as well as other renowned universities/ institutions of the country and abroad. Students also enjoy a distinct advantage in the matter of employment in government and many reputed corporate organisations and a good number of them are offered positions through campus recruitment, even before their results are declared.

Different forums and learning resources of the institute, such as, Institute-Industry Participation Cell (IIPC), DEI Alumni Placement Assistance Cell (DEIAPAC), DEI Computer Centre, Faculty Library, DEI Central Library, DEI Multimedia Centre, University Scientific Instrumentation Centre (USIC), INFLIBNET, PROWESS, PROQUEST database, and statistical software (e.g., SPSS, STATA) etc. facilitate the placement and personality development programs for the benefit of the students. Over a period, Faculty Training and Placement Cell has made remarkable achievements in terms of on/ off-campus placement of students in the companies of high repute. The students of the department have been performing remarkably well in all spheres of life. They have won many prestigious scholarships including UGC JRF. They have been toppers of ICSI, rank holders of ICAI, ICSI, and qualified 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.

The Faculty places high degree of importance to research activities as well. So far, 61 Ph.D. have been successfully completed in the department and 49 Ph.D. are ongoing. The department has undertaken and successfully completed 2 Major UGC Projects (Completed) and 3 Minor UGC Projects. 16 Research Scholars of the department are qualified JRF, 26 have qualified UGC-NET and 10 research scholars have been awarded the Rajiv Gandhi Fellowship. Alumni of the department are placed in Multinational Corporations, placed at higher positions abroad, are rank holders in Chartered Accountant Examinations, Company Secretaries Examinations, and other Competitive Examinations.

### **Facilities in the Department**

Computer lab which was established in year 2019 is outfitted with the newest hardware and software, providing a setting for approx. 150 students to access the available 11 systems and apply and experiment with what they have learned in class. All systems can access the internet. Students receive instruction and direction in computerised accounting, Tally, Excel, PowerPoints, Project preparation and Data Management. This helps create an environment conducive for online education so that students can learn the concept practically.

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

- Sweta Rajput and Dr. Sanil Kumar presented a paper entitled A study on Interim Financial Reporting with Special reference to listed Indian companies at the conference in the National Conference on contemporary issues in accounting & taxation organized by India Accounting

Association, Udaipur branch and Janardan Rai Nagar Rajasthan Vidyapeeth (deemed to be university, Udaipur held on 27-28 February, 2023

- Pallavi Goyal, Shikha Kannoja, Dr. Sanil Kumar and Dr. Rishika Agarwal presented a paper entitled, *The influence of corporate governance on firms' performance of nifty 50 in India in the International Research Conference 2023 on enhancing productivity in hybrid mode: the beginning of new era* organized by Dr. DY Patil B-School, India held on May 29 – May 31, 2023.
- Shikha Kannoja and Dr. Sanil Kumar presented a paper entitled *The influence of value relevance of accounting information in pre and post pandemic period* International Conference MAESASS-2023, organized by Council of Research & Sustainable Development, India, Dr. Bhimrao Ambedkar University, Agra, held on 03-04 June 2023.
- Kajol Verma, Dr. Rakesh Kumar, Jaduvansh presented a paper entitled *Exploring the ARIMA Model's Efficiency in Forecasting Stock Prices of Dow Jones Industrial Average in the International Research Conference 2023 on enhancing productivity in hybrid mode: the beginning of new era* organized by Dr. DY Patil B-School, India held on May 29 – May 31, 2023.

### **Publications**

- Ayushman, Kumar, R., Verma, K. (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).
- Kumar, R., Verma, K., (2023). *An Analytical Study of Pre & Post Impact of Covid-19 on Foreign Direct Investment Equity Inflow in India*. *International Journal of Research in Business Studies*, 8(1), ISSN: 2455-2992.
- Goyal, P., Kannoja, S., Kumar S. (2022). *A study of foreign direct investment and its impact on GDP and foreign exchange reserves In India*. *Sai on journal of commerce & management*, (1(3), ISSN- 2347-7563.
- Kumar, S., Goyal, P., Ayushman. (2022). *Analysis of role of foreign direct investment in India's economic development*. *International Journal of Research in Business Studies*, 7(2), ISSN: 2455 – 2992.
- Ayushman, Kumar, R., Verma, K. (2022). *An Analytical Study of Pre- and Post-Covid-19 Impact of FII's Investment on The Indian Stock Market with Special Reference to NSE and BSE*. *Sai Om Journal of Commerce & Management*, 1 (2), ISSN-2347-7563.

### **Department of Applied Business Economics**

The Department of Applied Business Economics together with the Department of Accountancy and Law of Faculty of Commerce is catering to the needs of ever-growing economic setting of the country since its inception. It has consistently practiced the policy of continuous up gradation, 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 and are continuing with on-going research projects sanctioned by University Grants Commission. The faculty members of the department continue to enrich and broaden their knowledge with regular contribution / 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 the journals of national and international repute over a period of 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. At present, the Department together with other associated

departments is offering B. Com., B. Com. (Hons.), B. Com. (Hons.) integrated with MBA, M. Com., M. Com. (International Business), M. Com. (Integrated with B. Ed.), Ph. D. and Ph. D. (Integrated with M Phil). The department enjoys wide recognition which enables the graduating students securing 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 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/ Faculty Development Programme**

- Prof. VK Gangal was the Member of the Research Degree Committee of Dept. of Applied Business Economics, Dr. Bhimrao Ambedkar University, Agra. He was also the Member of the Board of Study and Faculty board at Ch. Charan Singh University, Meerut, Faculty of Commerce - As External Members of BoSM. S. University Baroda Dept. Of Business Economics, Faculty of Commerce, Member of BoS M. S. University Baroda, Faculty of Commerce, Member of FB.
- Prof. VK Gangal was the Member of the Course Design Committee to Design the Course Structure and Course Contents (Syllabus) For M.Com. As Per the Semester System with Guidelines of CBCS – DD Institute, BRA University Agra.
- Prof. Shalini Dubey and Deepika Yadav won the Best Paper award on the paper Role of social media in Urban Farming in the Conference on Industry 4.0: Emerging Challenges, Opportunities and the Way Ahead, SU held from 13-14 May 2023.
- Dr. Bhawna Johri was the Resource person in the webinar on the topic Nurturing Entrepreneurial Mindset and Skill amongst Youth organized by Udhampur Campus, University of Jammu Special Purpose Vehicle Foundation under Udhampur Campus Capacity Building Series on 6<sup>th</sup> October 2022.
- Dr. Bhawna Johri was an eminent speaker in the international webinar on the paradigm shift in the business environment: challenges and opportunities organized on 26 November 2022 by IPEM Institute of Professional Excellence & Management, Ghaziabad.
- Dr. Bhawna Johri was the Keynote Speaker for the session World Economy and Future Expectation in International Conference themed on Role of Business Management and Social Innovations in Sustainable Development, 12 -13 January, 2023.
- Dr. Bhawna Johri chaired the session Effectiveness of Digital Media for Business and Education in the National Conference on Effectiveness of Digital Media for Business and Education organized by Makhanlal Chaturvedi National University of Journalism and Communication held on 10 -11 June, 2023.

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

- Dr. Bhawna Johri delivered the lecture on the topic Ethics of Academic Writing: Plagiarism in the National Seminar on the topic Academic Writing: Emerging Trends in Research held on 11 – 12 February, 2023 at Vardhaman College, Bijnor.

- *Ishita Tewari and 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 (NSC 2022) held on 26-29 September at DEI.*
- *Mili Tiwari and Shalini Dubey presented a paper entitled Assessing the sustainability awareness of students in DEI and a model to increase the student awareness at the 45<sup>th</sup> (Inter) National System Conference (NSC 2022) held on 26-29 September at DEI.*

### **Publications**

- *Akanksha Pathak, Vijay Kumar Gangal (2023). Factors Forcing To Buy Electric Car In Agra City: A Factor Analysis Approach, Bulletin For Technology and History Journal, 23 (5), 203-220.*
- *Khushboo Jain, Vijay Kumar Gangal, (2023). Sustainable Approach to Reduce Maternal Mortality and Maternal Mortality Position in India Journal of Emerging Technologies and Innovative Research, 10 (2), 183-187.*
- *Swami Prasad Saxena & Anuj Kumar (2023). Causality between carbon dioxide emission and agriculture production: Evidence from India. Asian Journal of Economics and Finance. Vol. 5. No. 2*
- *Prachi Agarwal & Swami Prasad Saxena (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 (ISSN: 2644-0490, e-ISSN: 2644-0504). Vol. 6. No. 8. August.*
- *Bhawna Johri (2023). The Effective Way of Selecting Journals & Its Procedures, Shodh Disha Journal, Shodh No.61.*
- *Bhawna Johri (2023). Attrition Management – A challenge in the Agra hotels, ABDC Australian Business Deans Council - Journal of Contemporary Issues in Business and Government, 29 (4).*
- *Bhawna Johri (2023). Resurgence of Millet as a health food, Australian Business Deans Council - Journal European Economic Letters, 13(4).*
- *Shalini Dubey (2023). Business Management Practices in Digital Era: Driving Transportation and Innovation, first volume, Himalaya Publishing House, Mumbai.*
- *Vasudha Gupta & Swami Prasad Saxena (2022). Determinants of Indo-GCC Trade: A Panel Data Analysis. Indian Development Policy Review (ISSN: 2583-3596), Vol. 3. No. 2. December.*
- *Priyank Kulshreshtha, K. Santi Swarup & Swami P. Saxena (2022). A Study on Contagion Effect of Economic Crisis in Sri Lanka on Stock Market Performance in India and China: A BEKK GARCH Model Approach. Journal of Commerce and Business Studies (ISSN 2322-0767). Delhi School of Economics, University of Delhi. Vol. 9. No. 1. January – June.*
- *Veerangna Singh & Swami Prasad Saxena (2022). Causal analysis of the relationship among inflation, interest rate and exchange rate: Evidence from India. International Journal of Foreign Trade and International Business (ISSN: 2663-3140, e-ISSN: 2663-3159). Vol. 4. No.2.*
- *Vasudha Gupta & Swami Prasad Saxena (2022). Assessment of the economic impact of the prospective India – GCC FTA: A partial equilibrium simulation analysis. Focus: Journal of*

---

*International Business (ISSN 2347-4459; e-ISSN: 2395-258X). Vol. 9. Issue 1. January – June.*

- *Bhawna Johri (2022). A study on the performance of banking sector in development of the women entrepreneurship, Research Journal of Commerce, Arts and Science -ISSN 2319-9202 CASIRJ, 13 (4), 131 – 141.*
-

# 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 the 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 & 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 life-long 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

## Achievements

To foster Academic cooperation in education and research, Dayalbagh Educational Institute (DEI) and District Institute of Education and Training, Agra signed a Memorandum of Understanding (MoU) on May 26, 2023. This MoU will encourage the exchange of faculty, students, academic information, and materials in belief that the research and educational processes at both parties will be enhanced and that mutual understanding between the faculty and students will be increased by the establishment of such exchanges. During the Summer break in June 2023 the Faculty of Education organised 2 Skill Development Workshops of 10-day duration in which students of DIET Agra came to participate with great enthusiasm. Also, two Faculty members were invited as resource persons in a workshop on Action Research.

- Prof. N.P.S. Chandel acted as a Resource Person in the workshop organized by PSS Central Institute of Vocational Education, Shyamla Hills, Bhopal (MP) India on the topic Development of Professional Standard for Vocational Teachers from 13 to 16 February 2023.

- Prof. Jyoti Gogia and Dr. Sona Dixit represented DEI in a meeting on, Review & Planning of K4C Hubs & Network in India organized by Participatory Research in Asia (PRIA) and UNESCO Chair for Community Based Participatory Research, University of Victoria, Canada, on 6 February 2023. The meeting was held at PRIA's Centre in New Delhi. The meeting was chaired by UNESCO Co-Chairs – Dr. Rajesh Tandon and Dr. Budd Hall. The DEI delegates talked about contribution of the Institute towards SDGS and how DEI takes a person-for-community approach and integrates collective activities in its educational framework which contributes to the needs of the community at large.
- Dr. Sona Dixit acted as a resource person in the One-Day Conference on Sensitization of District Court Judges on Gender Justice and Differently Abled Victims/Survivors of Sexual Abuse'' organized by Judicial Training and Research Institute, UP on 18 September 2022 at J.P. Sabhagar, Agra. She was invited to participate as a resource person in the International workshop in 'Research paper writing and Teaching Pedagogy' organised jointly by Department of Tourism and Management, Dr B R Ambedkar University and Department of Management, Howard University, Washington; D.C. on May 5, 2023. She acted as expert in Group discussion on 'Assessing open science: Focus on open engagement of societal actors and open dialogue with other knowledge systems' organised by UNESCO on May 9, 2023. She also participated in panel discussion on 'Impact of Digitalisation on the future of Higher Education' in a Global Survey of Digital Transformation in Education Industry hosted by Times Higher Education London (THE) on May 24, 2023.
- Prof. N.P.S. Chandel acted as Resource person in the workshop organized by PSS Central Institute of Vocational Education, Shyamla Hills, Bhopal (MP) India on the topic Development of Professional standard for Vocational Teachers from 13-16 February 2023.
- Prof Nandita Satsangee was invited by the Panjab University, Chandigarh to conduct a Ph.D. viva voce on 24 April, 2023.

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

#### **Two-day Workshop on Integration of Performing Art in Teaching – Learning Organized**

A Two-day Workshop on Integration of Performing Art in Teaching – Learning was organized by School of Education, Faculty of Education, DEI under Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNTT) on 24-25 February 2023. Prof. Sudha Sahgal, Dept. of Music, DEI Agra conducted interactive sessions on Folk songs like ChaitiKajari and gave creative ideas for its implementation in the classroom. Prof. Neelu Sharma, Department of Music, DEI demonstrated various Taals on Tabla and Kathak and their integration into teaching. Mrs Kajal Sharma discussed the technical elements of Kathak and their integration in the classroom. Students demonstrated teaching-learning through Music Vocal and Dance during the Hands-on Practice Sessions. The Workshop was convened by Dr. Manu Sharma. 100 Pupil Teachers, 30 Teacher Educators, and 35 University Teachers participated in the Workshop.

### **Seminar/Symposia/Conference/Webinar Attended**

Dr. Sona Dixit completed a one-year course entitled 'Religious Literacy: Traditions and Scriptures' in October 2022. This was a course of study offered by HarvardX, an online learning initiative of Harvard University, USA.

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

The following Laboratories are being used for teaching -learning practice and training: Curriculum Lab, Visual Arts Studio, Performing Arts Studio, Psychology Lab, Yoga Resource Centre, Conference Room and Auditorium

### Workshops/Conferences/Seminars/Webinars Organized

- The School of Education hosted a Two day National conference on the topic Cultivation of Cultural Pride, Art, and Education on the 19-20 May 2023 under the PMMMNMT, Ministry of Education . Prof. Jyotsna Tiwari, NCERT, in her keynote address explained the components of NEP 2020 which lay emphasis on development of Cultural Pride, Art, and Education. Prof. Aanshwana Saxena, Agra College, Agra. gave her talk on 'Global aspects of integration of art and culture in Education. Prof. Tanuja Agarwal, K R PG College Mathura. delivered her talk on Cultivation of Indian Culture and Education'. In valedictory session the Key note speaker Prof. Seema Bansal, T R PG College Aligarh. delivered her talk on, 'Music, art and beauty in Ancient India'. 58 participants from India and abroad presented their research papers in various sessions. Dr. Manu Sharma and Dr. Kalpana Gupta convened the conference.
- The School of Education hosted a Three-day National workshop on Teaching of Mathematics and Science through Puppetry from 25-27 May 2023. Dr. Manu Sharma trained in-service and pre-service teachers in making stick, shadow and glove puppets and integrating puppetry art in mathematics and science teaching. Total 30 participants attended the workshop.
- Five-day International Workshop on Innovative Practices in Research was organized by Faculty of Education, Dayalbagh Educational Institute under Pandit Madan Mohan Malviya National Mission for Teachers and Teaching, MoE, Govt. of India from 17 th -19th April 2023 at School of Education, DEI, Agra. On the first day, Dr. Nikhil Sharma, Research Associate McMaster University, Canada explained various features of LaTeX and presented a clear comparison of this tool with MS word along with its offline and online usage. On second day, he gave a brief introduction on how to make academic presentations with softwares like Texstudio, Miktex and Beamer. On third day, Prof. Pravin Saxena, Department of Accountancy & Law, DEI, Agra gave brief overview of the Best Practices and Funding of innovative research. He talked about the Research support system and the different levels of fellowship offered by the ICSSR. Mr. Nishant, Research Scholar, DEI provided hands-on practice on Vosviewer to the participants. On fourth day, Prof Asheesh Srivastava, Professor and Dean, School of Education, Mahatma Gandhi Central University, Bihar, gave a brief introduction on Unlearning; Relearning in Research Approach & Reporting. He explained the importance of innovative practices in research with special focus on mixed/ multi method. On last day. Prof. C.B. Sharma, Director, School of Education, Indira Gandhi National Open University (IGNOU), spoke on the topic Demystifying Research. He explained the Time Scale parameters for Assessment of Universities. He stressed upon the role of universities in spreading new knowledge and emphasized the importance of university & ability to help industry with innovation, inventions and consultancy. The sessions ended with clarification of doubts and queries of the participants. Total 118 participants attended the workshop in Hybrid mode.



- A Two-day Workshop on Integration of Performing Art in Teaching – Learning was organized by School of Education, Faculty of Education DEI under Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) from 24-25 February 2023. Prof. Sudha Sahgal, Professor, Dept. of Music, DEI Agra conducted interactive sessions on Folk songs like ChaitiKajari and gave creative ideas for its implementation in the classroom. Prof. Neelu Sharma, Department of Music, DEI demonstrated various Taals on Tabla and Kathak and its integration in teaching. Mrs

Kajal Sharma discussed the technical elements of Kathak and their integration in the classroom. Students demonstrated teaching-learning through Music Vocal and Dance in Hands on Practice Sessions. The Workshop was convened by Dr. Manu Sharma. 100 Pupil Teachers, 30 Teacher Educators, and 35 University Teachers participated in the Workshop.

- *Integration of music in teaching- learning: A two-day workshop on & Integration of Music in Teaching- Learning was organized by School of Education, Dayalbagh Educational Institute under Pandit Madan Mohan Malviya National Mission for Teachers and Teaching, MoE, Govt. of India on 2-3 Dec 2022. Shri S. D. Srivastava, the chief guest of inaugural session explained the importance of Music in all spheres of life and gave an artistical performance of Violin. Prof. Lovely Sharma, HOD, Music Dept. gave emphasis on the integration of Music in teaching learning process. In the first session, subject expert Dr. Ankita, Assistant Professor, Government Girls Degree College, Rampur, delivered a lecture on the main elements of Music. Prof. Vibha Nigam, Former Dean, Faculty of Education presented unique examples of integration of music in various subjects. Dr. Gautam Tiwari, Assistant Professor, Department of Music emphasized on making learning interesting using music in an interactive way. On the second day, Dr. Amit Johri lectured on the technical elements of musical presentation. A puppet presentation of Ramayana & Sudama Charitra Drama was presented for integrating music in subject. Mr. Umesh Sone presented the report of the workshop. Dr. Sona Dixit, Coordinator, SoE proposed the vote of thanks. Workshop was convened by Dr. Sona Dixit and Mr. Umesh Sone. 100 ex-teachers, 52 teachers and 25 university teachers participated in the workshop.*
- *Three-day workshop on CAD Designing and 3D Printing: A three-day workshop on CAD Designing and 3D Printing was organized by School of Education, Faculty of Education, Dayalbagh Educational Institute under Pandit Madan Mohan Malviya National Mission for Teachers and Teaching, MoE, Govt. of India on 17-19 Oct. 2022 at ETED lab. The objective of the workshop was to train teachers at all levels for designing 3D Models and for 3D printing. The Resource person Mr. Hardik Chaddha started his lecture with the basics of 3D printing. He discussed about the variety of manufacturing techniques. He supervised students to make 3D designs with the help of the software Tinkercad and gave hands on experience to participants for 3D Printing. About 84 participants participated in the workshop. The workshop was convened by Dr. Neha Jain and Dr. Neetu Singh.*



- *A four-Day Workshop titled Developing Skills in Craft for Teaching – Learning - Finding the Artist in Me was organized from 12 to 15 December 2022 in collaboration with Fevicryl (Pidilite). Shri Narendra Solanki, Expert on Fevicryl, and Ms. Mariam Bulbul of Baikunthi Devi Girls' College, Agra, gave training in Fabric, Block, and Stencil Painting. The Hands-on Practice was provided to 172 Teachers, Pupil Teachers, and Teacher Educators to develop artifacts using bottles, rope, jute, etc. Ms. Rinky Satsangi coordinated the Workshop.*



- A 10-day Summer Training was organized from May 29 - June 7, 2023. Three courses were offered, namely: (1) ICT Skills for Teachers, (2) Proficiency in English Communication and (3) Basics of Theatre, Music, and Visual Arts. These courses were conducted by Dr. Pooja Verma, Dr. Shalini Verma and Dr. Manu Sharma. A total of 57 students participated in these courses, from DEI and DIET, Agra. Among them, 24 students were from DIET, Agra. During these courses, students gained knowledge and practical experience in basic computer and ICT skills essential for teachers. They also learned how to teach students using puppets and improve their communication skills. At the conclusion of the courses, participation certificates were awarded to the students.

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

- Rupali Satsangi, Jyoti Gogia and Sona Dixit attended the international workshop on 'Community-based Participatory Research (CBPR)' in Malaysia from October 30 to November 6, 2022, organised by the Mizan K4C Hub at the Mizan Research Centre, Faculty of Leadership and Management, University Sains Islam Malaysia (USIM) and the UNESCO Chair in Community-Based Research and Social Responsibility in Higher Education. The workshop was part of a 21week Mentor Training Program (MTP) developed by the Knowledge for Change (K4C) Global Consortium under the Division of Continuing Studies, University of Victoria. The sessions incorporated discussions and hands-on-practice on community engagement, ethical considerations, field study ideas, case studies, sustainability issues and the use of art-based activities for CBPR.
- Dr. Neha Jain and Dr. Neetu Singh presented paper on an exploratory study of Techno pedagogical skills and Happiness of prospective teachers in relation to Generative AI in International conference organized by Kaunas, Lithuania on May 12, 2023.
- Dr. Sona Dixit completed a one-year course entitled 'Religious Literacy: Traditions and Scriptures' in October, 2022 a course of study offered by Harvard X, an online learning initiative of Harvard University. She Dixit successfully completed the two-week Faculty Development Interdisciplinary Refresher Course in Managing Online Classes and Co-creating MOOCs from 13-27 July 2022 conducted online by the Teaching Learning Centre, Ramanujan College, University of Delhi under PMMMNTT, Ministry of Education.
- Dr Kalpana Gupta participated in a seven days faculty development program organised by Teaching Learning Centre, Ramanujan College, University of Delhi from 16-22 July 2022 on 'Academic Research Writing and obtained grade A. She also participated in a seven days international virtual faculty development program organized by Manav Rachna International Institute of Research and Studies, Faridabad, Haryana and Cape Comorin Trust India from 25-31 July 2022 on 'Creating and Stimulating Research Based Teaching in Higher Education and obtained grade A. She participated in one-week online workshop on Effective Teaching organized by Bharat Digital Academy, Aligarh from 16-20 August, 2022. She presented research paper entitled & Educational Entrepreneurship and Emerging Women Artists in Visual Arts in the Two Days National Seminar on 19-20 March, 2023 organized by Shri Rameshwar Dayal Girls PG College, Hathras, UP. She

participated in one-week online faculty development program on Design and Development of Online Course from 20-26 March 2023 organized by Udaan Educational Services, India.

- Dr. Priti Sharma successfully completed a 4-week Orientation Programme for Faculty in Universities/College/Institutes of Higher Education organized by Ministry of Education PMMMMNMTT Teaching Learning Centre, Ramanujan College University of Delhi, from 21 November to 20 December 2022. She presented a paper entitled Status of women after 75 years of independence in the national seminar on Violence and Crime against Women: a blot on a civilized society, organized by Department of Education, Shri Rameshwar Das Agarwal Girls college, Hathras, U.P. India, 25 - 26 March, 2023. She also presented a paper entitled as 'NEP 2020 as potential document to address India's Unemployment' in National Seminar on Role of National Educational Policy-2020 to make India a Global Knowledge Superpower organized on Occasion of Amrit Mahotsav in joint collaboration of Rashtriya Shaikshik Mahasangh, U.P. (Kanpur Region) and C.S.J.M. University Kanpur, India, October 15, 2022. She presented a paper entitled 'Lockdown: An Unexpected Boon' in International Conference on Impact of Covid-19 on HUMPEAR organized by DEI (Deemed to be University), Agra, U.P. India, November, 2022 and a paper entitled 'Recommendation Pertaining Teacher Education' in the National seminar on The National Education Policy of India 2020: Transforming Vision into Action organized by Sant Ramkrishna Kanya Mahavidyalaya, Agra, U.P. India, 18-19 November, 2022. She presented a paper entitled 'Revamping the Instructional Pedagogy to Execute the Vision of NEP 2020' in the 1<sup>st</sup> Multidisciplinary International Conference on Pre- and Post-Doctoral Research in India and World organized by DEI on 25 March, 2023. She presented a paper entitled 'Cultivation of cultural pride, art and education in global context' in the Conference on Effect of Indian Culture on NEP 2020 organized by DEI on 19-20 May, 2023. She participated in the 1<sup>st</sup> International webinar on Repositioning higher education research for institutional sustainability and development, organized by, Institute of Africa Higher Education Research and Innovations, Maryam Abacha American University of Nigeria. August, 20, 2022.

### Publications

- Rao, T.K., Simha, R.L.N., Janardhana, K., Simha, R.S. (2023). Potential Benefits of Exposure to Nature on Cognition in School Students: A Review. *Scandinavian Journal of Information Systems*, 35(1), 986-990. E-ISSN:1901-0990
- Satsangi, N., Shaonam, K. & Lajwanti, (2022). 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.
- Agarwal, M. & Rao, T.K. (2022). Online Learning: Learners' Problems and Possible Solutions. *International Journal of Current Science.*, (12), 2250-1770.
- Kumar, R. & Lal, C. (2022.) Study of Adjustment of Female Teachers Working in Kasturba Gandhi Balika Vidyalaya. *Shrinkhla Ek Shodhparak Vaicharik Patrika*, 9(8), 21-26. ISSN(P): 2321-290X:

### Placements

- 29 students of the Department got placed through placement cell in various Educational Institutes like St. C.F. Andrews School, D.P.S. Shikohabad, Agra Public School, Holy Public Junior School, Prem Vidyalaya, Dayalbagh Agra, Kids Corner School, Firozabad. Suraj Govind Senior Secondary School, Agra, Shivalik Cambridge, New St. Stephen's Sr. Sec. Public School, Gayatri Public School, Agra, Holy Public School, Sikandra, PGT Biology- Heritage Public School, TYC, St. Andrews Public School, Shivalik Cambridge College, Avas Vikas Colony, Saraswati School, Rajasthan, The Inertia Academy, Prakash Puram Tedi Bagiya, Agra, T.G.T. Teacher of English at Heritage Public School, Shri R.S. Public school, Bainpur Sikandara, Agra and Banks.

### **Student's Achievements**

- In March 2023, 07 B.Ed. students (Himani Mata, Kartik Gupta, Simran Chhabra, Priyanshi Chhabra, Rooma Singh, Somendra Kumar and Supriya Verma) have completed joint project on Web and video Publishing on the Internet in collaboration with students from Seneca College, Canada.
- Around 100 students have passed the CTET exam, 2 cleared UP TET, one student cleared Gate exam and 8 students have passed NET exam.

### **Workshops/Conferences/Seminars/Webinars Attended by students**

- Anuj Kumar presented paper on the topic entitled उच्च शिक्षा स्तर पर शिक्षकों की दैनिक गृहदत्त कार्य के प्रति अभिवृत्ति का अध्ययन in 4<sup>th</sup> Multidisciplinary National Conference on Pre-Doctoral Research 2022 on 11 October, 2022, organized by DEI.

### **Scouting and guiding camp (17-22 December, 2022)**

The Faculty of Education at Dayalbagh Educational Institute has arranged a six-day Scouting and Guiding camp for B.Ed and D.El.Ed Teacher trainees from December 17 to December 21, 2022. Prof. P.S. Tyagi, Mr. Bajrang Bushan, Dr. Anjana Verma and Dr. Jyotika Kharbanda contributed as camp coordinators. Prof. N. Satsangee, Prof. N.P.S. Chandel, and Prof. S. Srivastava oversaw the inauguration of the camp. Dr. P.S. Tyagi urged Scouts and Guides to achieve greater heights and to study Scouts and Guides methods at the camp. Few contests, such as cleaning the environment and making posters, cultural programmes, hiking and tent-pitching, food preparation, and many more, were held in which students participated enthusiastically and were periodically evaluated. Dr. Kalpana Gupta provided yoga instruction. During the camp, scouts and guides learned a variety of skills, including first aid and how to care for an injured person until medical assistance could be reached. In the presence of Professor Emeritus, and staff from the faculty, the valedictory occasion included an oath-taking ceremony that was led by Professor Anand Mohan, Registrar of the DEI. Through the course of this training camp, Professor Mohan urged the attendees to make a commitment to develop themselves into individuals who are reliable and responsible, since these are characteristics that society values. He continued by stating that participating in activities like scouting and guiding will teach one how to deal with difficulties in real life.

### **B.ED. Summer Internship 5-21 June, 2023**

A 15 day B.ED. Summer Internship program was conducted under the School of Education, Faculty of Education, DEI. Total 400 participants of B.Ed. and D.El. Ed. courses were participated in the program. The objective of the summer internship program was to train prospective teachers in developing their skills for preparing Digital and Art integrated teaching resources. On the first day of the internship program, Dean, Prof. Nandita Satsangee, Faculty of Education welcomed the participants. Prof. Savita Srivastava (Head, B.Ed.) spoke about the relevance of this program for future teachers. Prof. N.P.S. Chandel (Head, PG Programs) introduced the participants about the summer internship program as a mandate in NEP 2020. Program coordinators Dr. Neha Jain and Dr. Anjana Verma discussed the whole schedule and evaluation criteria with the participants.

The students developed four resources on the topic of their subject assigned to them under the following four components-

1. Development of Resources based on AI/ Digital tools
2. Development of Resources based on Performing Art
3. Self-Recorded video for school teaching
4. Development of Resources based on Visual Arts

---

*The subject experts in the internship program were Dr. Kalpana Gupta, Dr. Neha Jain, Mr. Umesh Sone, Dr. Jyotika Kharbanda, Mrs. Mugdha Sharma, Dr. Preeti Saini, Dr. Shweta Agarwal, Dr. Preeti Manani, Dr. Manu Sharma, Dr. Shalini Verma. Experts introduced theoretical concepts to the students and helped them in practical implementation of the knowledge in developing teaching resources in their areas of interest.*

*In the valedictory session, participants were given the feedback of the program and Dr. Sona Dixit proposed the vote of thanks. Mrs. Rinky Satsangee, Dr. Nahar Singh, Dr. Pooja Verma, Dr. Priti Sharma and Ph.D. scholars contributed in smooth conduction of the summer internship program.*

*The entire program was coordinated by Dr. Neha Jain, Dr. Anjana Verma and Dr. Shweta Agarwal.*

---

## Faculty of Engineering

Faculty of Engineering, Dayalbagh Educational Institute was founded in 1950 as Dayalbagh Engineering College in response to the country's needs for trained technical manpower. It became a part of the Dayalbagh Educational Institute (Deemed University) in the year 1981. The Faculty has four departments, Civil Engineering, Electrical Engineering, Footwear Technology and Mechanical Engineering that offer a number of programmes at the undergraduate, postgraduate and doctoral levels. The faculty offers Full-Time Four-Year Bachelor of Technology in Civil Engineering, Electrical Engineering, Footwear Technology, Mechanical Engineering, Agricultural Engineering and Full-Time Five-Year Bachelor of Architecture. In addition, the faculty also offers Integrated Dual Degree Courses like BCom /BBA integrated Footwear Technology Dual Degree and a Part Time Bachelor of Technology in Electrical Engineering. At the postgraduate level the faculty offers Full Time Master in Technology in Engineering Systems, Full Time Master in Technology in Engineering Systems with specialization in Computer Science, Part Time Master in Technology in Engineering Systems. The faculty also offers Doctor of Philosophy: Ph. D. (Fulltime) and Ph. D. (Part Time) and Integrated B. Tech., M. Tech. and Ph. D. programmes.

### **Seminar/Symposia/Conference/Webinar/Faculty Development Program Organized ATAL Faculty Development Programme Organized**

The Department of Electrical Engineering organized an AICTE-sponsored Two-week ATAL Faculty Development Programme on Renewable Energy Resources and Rural Electrification: Challenges and Solutions from 10 to 21 October 2022. The FDP was coordinated by Prof. Ajay Kumar Saxena, Head of Electrical Engineering, and Dr. Rajeev Kumar Chauhan. In the first week, the FDP was conducted in online mode, and several international and national speakers were invited to deliver lectures. The eminent speakers who were invited were, Prof. N.P. Padhy, Director MNIT Jaipur, Dr. Marwa Ben Ali, University of Sfax, Tunisia, Prof. Sathans, NIT, Kurukshetra, Dr. Nishant Kumar, IIT Jodhpur, Prof. Ajay Kumar Bansal, CUH, Mahendragarh, Mr. John D. McDonald, GE Renewable Energy, USA, Mr. Raphael Oluwaseun George, Sunhive Limited. Nigeria, Prof. Asheesh Kumar Singh, MNNIT, Allahabad, and Dr. E.S.N. Raju, IIT Guwahati. They talked about different issues in Smart Grid, such as, Deployment and Applications, Hybrid Renewable Energy Sources, AI-based Grid Integrated Solar Energy Conversion Systems, etc.

The sessions in the second week were conducted in the offline mode and were honoured by the Keynote Speakers like Prof. Sri Niwas Singh, Director, ABV-IIITM Gwalior, Dr. Manmohan Garg, MNIT Jaipur, Dr. Saalim Qureshi, Typhoon HIL, and Quarbz Info System, Prof. Barjeev Tyagi, IIT Roorkee, Prof. Debajit Palit, NTPC Business School, Noida, Mr. Nirojakanta Swain, OPAL RT, Ms. Nidhi Verma, Homer India Pvt. Ltd., Dr. Kalpana Chauhan, CUH, Mahendragarh and Dr. Kalpana Gupta, Dr. Subho Upadhyay, Prof. D Bhagwan Das, Dr. K. Pritam Satsangee, Dr. V. Srinath from DEI, Agra. Topics such as Modelling and Controlling Power Electronic Converters for Renewable Energy Systems, Operation and Control of Microgrids, India's Electrification Evolution, Yoga and Stress Management, etc. were covered. Some articles and projects were also presented by the UG and PG students of the Institute and other participants. Dr. Kalpana Chauhan, CUH Mahendragarh, was the Guest of Honour in the Closing Ceremony of the FDP.



### Patents

Dr. Prem Prakash Vuppuluri and Prof. Patvardhan Chellapilla: were granted an Innovation Patent By Ip Australia, No. 021105408, Titled A Method And System For Building Minimum Spanning Trees With Leaf Constraint In Euclidean Space.

### Indian Design Patents - Granted

A Patent has been awarded to Dayalbagh Educational Institute for 'Field Programmable Gate Array-Based Processing Engine for Electric Power Transmission Lines'. The Inventors are, Prof. D. Bhagwan Das, Dr. Varun Maheshwari and Prof. A. K. Saxena.

Summary: The senior faculty of the Institute have developed an improved hardware processing engine based on FPGA for multi-functional digital relays for power transmission systems, which can execute sensing, processing, and communication of data concurrently, for reducing computational time and improving the performance of the relays.

### Department of Agricultural Engineering

Agricultural engineering is one of the sub-fields of engineering. In simpler words, it is a fusion of agriculture and technology. India is an agro-based country which explains why the agricultural sector and its allied industries are so high in demand. This demand has led to the development of agricultural engineering courses where students learn about the Indian agricultural system and its encounter with technology. The growth prospects in the agricultural sector have increased the appeal of this course.

Agriculture in Dayalbagh was started by the founder of the erstwhile Engineering College as a daily voluntary selfless service rendered by local and visiting members of the Dayalbagh community and forms an important interface between DEI and Dayalbagh. Thus, a ready platform is available for community outreach and R&D activities with its technical, social, economic, and environmental relevance and local needs.

AICTE has given approval to the Faculty of Engineering, D.E.I., to start B.Tech. in Agricultural Engineering from the 2020-21 session, since then Agricultural Engineering has become one of the constituent departments in the Faculty of Engineering with one Associate Professor and 4 Assistant Professors.

### Thrust Areas of Research

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.

### **Salient features of the Department**

B. Tech in Agricultural Engineering programme incorporates principles and practices from various disciplines of applied sciences, engineering, technology and skill learning and the entire course could be categorized into disciplines of Farm Machinery and Power Engineering, Soil and Water Conservation Engineering, Irrigation and Drainage Engineering, Postharvest Processing and Food Engineering and Renewable Energy. Agricultural engineers are primarily expected to apply engineering, technology and its modern advancements to farming practices to build up an ecologically as well as environmentally sustainable agriculture system in the country, which comprise use of technologies to increase resource use efficiencies (water, nutrient etc) thereby farm productivity for small and medium farming, adoption of methodologies to reduce losses of agricultural produces at production and demand side, development of innovations in the design of farm equipment and cost effective storage structures at field scale, development and promotion of use of non-conventional energy resources for farming operations, providing technical inputs to extend advantages of food processing practices and modern technologies (remote sensing, GIS etc) to rural sectors, sustainable management and conservation of natural resources, promotion of farm mechanization to improve the farm power availability in different agroecological regions of the country, development of start-ups in agriculture sector to address the present challenges, adoption of precision farming and modern farming technologies to optimize the use of agricultural inputs, application of skills gained from IT, soft computing, IoT, mechatronics etc to reinforce climate smart farming practices, and thereby improve the socioeconomic status of farming community.

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

Three labs have been established in the Department.

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

### **Facilities in the Department**

The department is well equipped with Soil and Water Lab Equipment, PHE and Dairy Lab Equipment, Farm Machinery and Energy Equipment

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

Dr. Anjitha Krishna P. R., was sanctioned seed money of two lakhs rupees for carrying out three-year project on Biochar production from agricultural waste and its application in sandy soil enrichment by DEI in 2022  
Dr. Madhuri Dubey was sanctioned seed money of two lakhs rupees for Design and installation of roof top rain water harvesting system in DEI university campus.

### **Faculty/Staff Achievements/ Awards/ Faculty Development Programme**

Dr. Anjitha Krishna P. R., was awarded best paper award at the 45<sup>th</sup> National Systems Conference 2022 organized by System Society of India and Dayalbagh Educational Institute, Agra.  
Awarded Excellence in Reviewing from the International Journal of Environment and Climate Change (NAAS:5.13, 2022)

### Workshops/Conferences/Seminars/Webinars Attended

- Dr. Anjitha Krishna P. R., participated in a one-week online FDP on Artificial Intelligence for Smart Agriculture during 24-06-23 to 30-06-23 organized by Sanskriti University, Mathura, U.P. She also participated in 5 days online FDP on Universal Human Values organized by AICTE during 12 to 16 June, 2023. She also participated in the 46<sup>th</sup> National Systems Conference organised by Dayalbagh Educational Institute, Agra, from 27 to 29 June, 2023.
- Dr. Priyanka Gunjan participated in the 46<sup>th</sup> National Systems Conference organised by Dayalbagh Educational Institute, Agra, from 27 to 29 June, 2023.

### Publications

- Anjitha Krishna, P. R., Maheshwara Babu, B., Dandekar, A. T., Rajkumar, R. H., Ramesh, G., Balanagoudar, S. R. (2022). Water and nutrient dynamics in the root zone of mulched onion crop under different soil types, emitter discharge rates and irrigation intervals. *Scientist USA*, 1(1): 1-14.
- 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.
- Gangwar A., Singh S., Singh R. M., Sharma G., Tirkey N., Singh G., Verma R., and Gunjan P., (2023). Analysis on detection of trend in groundwater level in mid-western plain zone, India. *Journal of Soil and Water Conservation*. 22(1):56-64. DOI:10.5958/2455-7145.2023.00008.5.
- Gunjan P., Mishra S. K., Lohani A. K., Chandniha S. K. (2023). Impact estimation of land use/land cover changes and role of hydrological response unit in hydrological modelling in a watershed of Mahanadi river basin, India (PDF) Impact estimation of land use/land cover changes and role of hydrological response unit in hydrological modelling in a watershed of Mahanadi river basin, India. *Natural Hazards*. doi.org/10.1007/s11069-023-06147-y.

## 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 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**

An 'Environmental Engineering Lab' has been set up recently with following facilities.

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

### **Facilities in the Department**

Facilities are mentioned below for each Lab:

#### **1. 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.

#### **2. Geomatics Lab**

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

#### **3. 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, Pensky Marten Apparatus and Benkelman Beam

#### **4. 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

#### **5. Building Material and Concrete Lab**

Facilities - Le Chatellier Apparatus, Sieve Analysis Apparatus, Consistency Test Apparatus, Slump Cone Test Apparatus, Compaction Factor Test Apparatus, Compression Testing Machine (CTM) Apparatus, Vee-Bee Flow Test Apparatus, Self-compacting concrete Apparatus

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

- Dr. Ishant Singhal received an extension of two project entitled Virtual Labs of Concrete Technology Virtual Lab Phase III and Virtual Lab of Engineering graphics under Virtual Lab Phase III (Extended) of worth Rs. 20 Lakhs each by Ministry of Education, Govt. of India.
- Mr. Jinshad received an extension of project entitled Virtual Lab of Engineering Dynamics under Virtual Lab Phase III Virtual Lab Phase III of worth Rs. 20 Lakhs by Ministry of Education, Govt. of India.

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

- Mr. Jinshad served in the capacity of Publication Committee Chair at the 46th (Inter) National Systems Conference (NSC 2023) of the Systems Society of India organized 27 – 29 June 2023 at

Dayalbagh Educational Institute. He participated in webinar Ansys OptiSlang - Process Integration & Design Optimization on 28 June 2023.

- 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 27 – 29 June 2023 at Dayalbagh Educational Institute.

### Placements

The students of the Department got placed in various firms and reputed companies like JSW Energy, JSW Steel, Mfilterit, Physics Wallah, Pie Infocom, Santosh Academy, Torrent GAS, Adwinetech, Antier Solutions, Digio, Investwell.

### Publications

- Himanshu Vimal, Nandini Kaushik, Devesh Jaysawal (2023). Stabilization of soil using geotextile International Journal of Research in Civil Engineering and Technology, E-ISSN: 2707-8272, P-ISSN: 2707-8264, 4(2), 01-03.
- Sakshi Agarwal, Devesh Jaysawal Ferrock material: A case study International Journal of Research in Civil Engineering and Technology, E-ISSN: 2707-8272, P-ISSN: 2707-8264, Vol- 04, Issue-1, pp:24-29,2023.
- Shantanu Upadhyay, Devesh Jaysawal (2023). Geotextile reinforcement in pavement design: A comprehensive analysis Civil Engineering and Construction, E-ISSN: 2707-8337, P-ISSN: 2707-8329, 2 (1), 21-25.
- Ishika Mittal, Devesh Jaysawal (2023). Liquefaction of soil during earthquakes: Potential of soils Civil Engineering and Construction, E-ISSN: 2707-8337, P-ISSN: 2707-8329, 2 (1), 17-20.
- Nandini Kaushik, Himanshu Vimal, Devesh Jaysawal (2023). Study on liquefaction of soil using cyclic load mechanism and pore pressure dissipation International Journal of Research in Civil Engineering and Technology, E-ISSN: 2707-8272, P-ISSN: 2707-8264, 4(1), 30-33.
- Devesh Jaysawal, Sahil Srivastava, Shantanu Upadhyaya, Sakshi Agarwal, Ishika Mittal, Rishabh Kumar Singh, Himanshu Vimal (2022). Rejuvenation of Guru ka Taal, Agra: Issues, Challenges and Strategy SSRG International Journal of Civil Engineering, 9(8), 29-35. ISSN: 2348-8352 <https://doi.org/10.14445/23488352/IJCE-V9I8P105>.
- Ishant Singhal, Bobby Tyagi, Riya Chowdhary, Ankit Sahai, Haniyeh Fayazfar, Rahul Swarup Sharma (2022). Toward an Improved Understanding for Design of Material Extrusion Additive Manufacturing Process- Based 3D Printers-a Computational Study, Advance Theory & Simulation 2022, 2200704. <https://doi.org/10.1002/adts.2022007043>.
- Ishant Singhal, Bobby Tyagi, Riya Chowdhary, Anami Saggarr, Abhishek Raj, Ankit Sahai, Haniyeh Fayazfar, Rahul Swarup Sharma (2022). Augmenting mechanical design engineering with additive manufacturing, Progress in Additive Manufacturing, 2022. <https://doi.org/10.1007/s40964-022-00359-7>
- Devesh Jaysawal, Shikhar Verma, Saurav Nigam (2022). Traffic Assessment of an Intersection and its signal design using Webster's Model: A case study of Ghatia Azam Khan Intersection in Agra city Technix International Journal for Engineering Research, ISSN 2349-9249, 9(7).

### Consultancy

The Department of Civil Engineering has done a consultancy of total amount of Rs. 1122050 (Rupees Eleven Lakh Twenty-Two Thousand fifty) with GST from 1 July 2022 to 30 June 2023.

#### (i) Technical Consultancy

1. Vetting of Structural design of an individual building in Delhi cantonment by SGML Architect LLP (completed) of Rs. 20000 including GST completed.

2. Vetting of design & and drawing of Goods shed pile foundation of Dholpur, Rajasthan railway project of Rail Vikas Nigam Limited. by contractor STS-KEC(JV) of Rs. 40000 including GST completed.
3. Phase 2 site inspection of construction work at Atal Residential School, Kiraoli, Agra given by Shree Riddhi Siddhi Build Well Ltd. (Govt. Contractor) of Rs.82600 including GST completed.
4. Vetting of the structural design of the Agra Smart City Project in the various locations of Agra (ongoing).

#### (ii) Material Testing Consultancy

The Department of Civil Engineering has done various testing on construction materials majorly for Indian railways. Total Amount of Rs. 979450 with GST from 1 July 2022 to 30 June 2023.

#### Department Outreach Programme

The Department of Civil Engineering has done digital land mapping and contour map generation of the following sites:

- a. Anupam Upvan (including computerized levelling and canal alignment)
- b. Baikunth Dham near Poiya Ghat Agra.
- c. Land Mapping of Khasra 359

## Department of Mechanical Engineering

#### Facilities in the Department

Details of equipment's, facilities existing in the department.

S.No.	Lab Name	List of Equipments
1	3D Printing and Additive Manufacturing	Stratasys Fortus 400mc 3D Printer System, Ultimaker, Makerbot Replicator 2 Desktop 3D Printer, Mojo 3D Printer Desktop 3D Printer, 3D Scanner, etc
2	Hydraulics	Centrifugal Pumps, Pelton Turbine, Francis, Kaplan Turbine, Submersible Pump, Mouthpiece and Orifice Testing, V-Notch and Venturimeter, Orificemeter, etc

#### Ongoing Research Projects

Details of Projects ongoing in the department

S. No.	Title	Agency	Period	Grant/Amount (Rs.in Lakh)
1.	Development of high strength Prosthetic Sockets through Additive Manufacturing	AICTE	2020-2023	18
2.	Virtual Lab – 3D Printing	MHRD	2020-2023	16

#### Patents Applied

Details of patents applied during the year in the department, in the following format

	<b>Title of Patent</b>	<b>Inventors</b>	<b>Patent Application No</b>
1	<i>Design System for Emulating Sand Testing Equipment and The Solidification of Metals</i>	<i>Bobby Tyagi, Abhishek Raj, Lakshya Bhardwaj, Anand Swarup, Gargi Malik, Hritav Gupta, Pohap Layal, Arsh Rajora, Ashish Goyal, Ankit Sahai, Rahul Swarup Sharma</i>	202311043317
2	<i>Smart Lavatory Urine Examination System (Slues)</i>	<i>Bobby Tyagi, Abhishek Raj, Anand Swarup, Prasun Dave, Gargi Malik, Hritav Gupta, Lakshya Bhardwaj, Pohap Layal, Arsh Rajora, Ashish Goyal, Akash Kumar, Ankit Sahai, Rahul Swarup Sharma</i>	202311026633
3	<i>System and Method for Fabricating Injected Printed Circuit Board Using Matex Fabricator and Metal Injection Tool</i>	<i>Bobby Tyagi, Pohap Layal, Abhishek Raj, Hritav Gupta, Arsh Rajora, Ashish Goyal, Lakshya Bhardwaj, Anand Swarup, Guru Ratan Satsangee, Ankit Sahai, Rahul Swarup Sharma</i>	202311006655
4	<i>System and Method for Fabricating Customized, Flexible Prosthetic Appendage Attachment (Paa)</i>	<i>Bobby Tyagi, Guru Ratan Satsangee, Abhishek Raj, Dheeraj Angajala, Ankit Sahai, Rahul Swarup Sharma</i>	202211066319
5	<i>Method and System for In-Situ Fabrication of Carbon Nanotubes Blended Thermoplastics Parts</i>	<i>Abhishek Raj, Pushpendra Yadav, Ankit Sahai, Rahul Swarup Sharma</i>	202211022914
6	<i>A Method And System For Fabricating Customized Shaped And Sized Electrochemical Energy Storage (Ees)</i>	<i>Akash Jain, Abhishek Raj, Bobby Tyagi, Ankit Sahai, Rahul Swarup Sharma</i>	202311045707

### **Faculty/Staff Achievements/ Awards/ Faculty Development Programme**

1. Dr. Aditya was invited as the Invited Speaker in Mechanical & Automotive Research Conference (MechResCon2023) 23-25 March 2023, Rome, Italy (in virtual mode).

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

- Dr. Vishakha Baghel participated in 8<sup>th</sup> National Workshop on Research Methodology in Fluid Mechanics, Theme: Visualization of Fluid Flow and Temperature Distribution from 12-15 July 2023, Organized by Department of Mechanical Engineering, Indian Institute of Technology Jodhpur (IITJ), Jodhpur.

- Saurav Sikarwar, Rajesh Kumar, Ashok Yadav “Review on Battery Thermal Management system of Li-Ion Battery pack with Different mediums” National Systems Conference (NSC-2022) Dayalbagh Educational Institute Agra, India, Sep. 30-Oct. 1 2022.
- Devansh Saraswat, Devanshu Lawania, Rajesh Kumar, D G Rao Review of factors affecting cooling performance of Battery Thermal Management System NSC 2022, DEI, Agra.
- Ravi Kant Ravi, Rajesh Kumar, Mukesh Kumar and Chandraveer Singh presented Experimental investigation on the thermohydraulic performance of two pass collectors provided with double sided roughened absorber plate in 2<sup>nd</sup> ICERTSD, IEST Shibpur, Howrah, India, 27-28 April 2023.
- Rajesh Kumar, Devansh Saraswat, Ravikant Ravi and Mukesh Kumar Review on Battery Thermal Management Systems and its types for Electric vehicles 2<sup>nd</sup> ICERTSD, IEST Shibpur, Howrah, India, 27-28 April 2023.
- Dr. Aditya participated in NAAC Sponsored Two Days Online National Workshop on Curriculum Development for the Effective Implementation of NEP-2020, under IQAC conducted during September 03-04, 2022 at Madhav Institute of Technology & Science, Gwalior, MP, India.
- Dr. Aditya participated in the International Webinar on Modern Trends in Physics Research held on Tuesday, 16 August 2022, organized by Department of Physics, Ambah Post Graduate College Ambah, Morena (M.P.).
- Dr. Aditya attended the Elsevier Empowering Engineers to become Corporate Ready-Solving India Specific Grand Challenges 2022 at Elsevier, on Wednesday 14 September, 2022 (in virtual mode).
- Dr. Aditya attended the Preprints: A New Way to Publish Your Research Results at Elsevier Taiwan, on Wednesday 28 September, 2022 (in virtual mode).
- Dr. Aditya participated in the one-day National E-Conference on Prevention of Communicable Disease held on 18 October 2022 jointly organized by IQAC & Department of Zoology, Bipin Bihari College, Jhansi (U.P.).
- Dr. Aditya attended the APAC customer success hub webinar, Beyond Borders: How to promote interdisciplinary & international collaborative research to contribute to the achievement of the SDGs. at APAC customer success hub webinar, on Wednesday 1 February, 2023 (in virtual mode).
- Atul Suri, D.K. Chaturvedi presented Mechanical performance of friction stir welded AA6063 plates with variation in tool pin profile at the 4<sup>th</sup> International conference on Innovative product design and intelligent manufacturing systems (IPDIMS-2022), held during 25-26 November 2022, NIT-Rourkela.
- Atul Suri, D.K. Chaturvedi presented Effect of tool pin offset on mechanical and microscopic behavior of horizontal axis friction stir welded Al6063- Cu joints at the International Conference on Recent Advances in Science, Engineering, Technology and Management (ICRASET - 2023), organized by world research forum for Engineer and researchers (WRAFER) on 15<sup>th</sup> March 2023.

### Placements

The students of the Department got placed in high reputed firms and companies like Maruti Suzuki, Cameron- A Schlumberger Company, FIAT India, JSW, Adani Oil and Gas Private limited, Investwell, Recruit CRM, DCM fenesta (fenesta building system), Fiat India Automobile Private Limited, Honda cars, Shriram Pistons and Rings Ltd., PIE INFOCOMM PVT. LTD., DCM SHRIRAM FENESTA, Fenesta building system, JSW steel, Fiat, AAPNA, India Today, Torrent gas private, Fiat, JSW Energy, Raghunandan, DCM SHRIRAM INDUSTRIES, CG Power, Tech Mahindra, Unisys, Caparo, Genisup, ORC Engineering pvt, Mahindra & Mahindra, Scispot.

### Publications

- Singhal I, Tyagi B, Chowdhari R, Saggar A. Raj A, Sahai A, Fayazfar H, Sharma R.S. (2023). Augmenting mechanical design engineering with additive manufacturing. *Progress in Additive Manufacturing*, 1-23.
- Singhal, I., Tyagi, B., Chaudhary, R., Sahai, A., Fayazfar, H., & Sharma, R. S. (2023). Toward an Improved Understanding for Design of Material Extrusion Additive Manufacturing Process-Based 3D Printers – a Computational Study. *Advanced Theory and Simulations*, 6(1), 2200704.
- Atul Suri, D.K. Chaturvedi, (2023). Horizontal axis friction stir welding process for joining Al6063 and pure copper. *International Journal of Mechanical Engineering (IJME)*, 220-229.
- Atul Suri, D. K. Chaturvedi, (2023). Effect of Tool Pin Offset on Mechanical and Microscopic Behavior of Horizontal Axis Friction Stir Welded Al6063- Cu Joints, *International Journal of Mechanical and Production Engineering (IJMPE)*, 11 (4).
- Atul Suri, D.K. Chaturvedi, (2023). A Review Study on Thermal analysis of friction stir welding process, *international journal on advances in Engineering and management (IJAEM)*, 5(2), 867-876.
- Atul Suri, D.K. Chaturvedi, (2023). Mechanical performance of friction stir welded AA6063 plates with variation in tool pin profile. *Springer- LNME, Intelligent Manufacturing Systems in Industry 4.0*, 113-122, ISBN: 978-981-99-1665-8, <https://link.springer.com/bookseries/11693>
- Yadav, P., Sahai, A., & Sharma, R. S. (2023). Experimental studies on the mechanical behaviour of three-dimensional PLA printed parts by fused filament fabrication. *Journal of The Institution of Engineers (India): Series D*, 104(1), 233-245.
- Jain A, Upadhyay S, Sahai A, Sharma R.S. (2023). Reinforcement - material effects on the compression behavior of polymer composites. *J. Appl. Polym. Sci.* 140(15), 1-14.
- 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. *Proc Inst Mech Eng C J Mech Eng Sci*, 237(18), 4256-4270.
- Tyagi B, Sahai A, Sharma R.S. (2023). Augmenting the flexural strength of polymer composites for stronger and more durable prosthetic sockets. *Polym. Compos.*
- 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*, 08927057231170790.
- Jain, A., Sahai, A., & Sharma, R. S. (2023). Enhancing the Mechanical Behaviour of Fused Filament Fabricated Carbon Fibre-Reinforced Poly-lactic Acid. *Journal of The Institution of Engineers (India): Series D*, 1-8.
- Singh, P., Sahai, A., & Sharma, R. S. (2023). Friction Stir Processing of Multiwalled Carbon Nanotubes Reinforced Al-Mg-Si Alloy Composites. *Journal of The Institution of Engineers (India): Series C*, 1-18.
- Jain, A., Kumar, S., Singh, A., Sahai, A., & Sharma, R. S. (2023). Comparative Study of Impact Behavior of Fused Filament Fabrication-printed Polylactic Acid Composites. *Nano World J*, 9(S1), S470-S475.
- Singh P, Saha, A, Sharma R.S. (2023). Insights into the friction stir processing of fused filament fabricated polymers with multiple reinforcements. *Polym.-Plast. Technol. Mater.* 62(12), 1621-1638.
- Satsangee G, Tyagi B, Angajala DK, Sahai A, Sharma R.S. (2023). Prosthetics Advice, Design & Fabrication using Digital Manufacturing Systems for Improved Healthcare Systems, 22-28. *Paritantra: Journal of System Science and Engineering*.
- Jain, A., Kant, K., Singh, S. K., Sahai, A., & Sharma, R. S. (2023). Process parameter tailored evaluation of FFF-fabricated carbon fibre-based poly-lactic-acid composites. *Journal of Thermoplastic Composite Materials*, 08927057231155858.

- Dheeraj A, Sahai A, Sharma R.S. (2023). Additive manufacturing of customized, accessible, and affordable lower limb prosthetics in India: case study. *Advances in Additive Manufacturing Artificial Intelligence, Nature-Inspired, and Biomanufacturing*, Elsevier, 463-477.
- Saurav Sikarwar, Rajesh Kumar at al. (2023). Battery thermal management system for the cooling of Li-Ion batteries, used in electric vehicles, *Materials Today: Proceedings*.
- Jain A, Mishra A, Dubey AK, Kumar A, Sahai, A, Sharma, R.S. (2022). Mechanical characteristics and failure morphology of FFF-printed poly lactic acid composites reinforced with carbon fibre, graphene and MWCNTs. *J. Thermoplast. Compos. Mater.*
- Manoj Gwalwanshi, Rajesh Kumar (2022). A review on butanol properties, production and its application in internal combustion engines, *Materials today: Proceedings*. 62 (12), 6573-6577.
- Sharma, A. (2022). Fault Diagnosis of bearings using recurrences and artificial intelligence techniques, *ASME. ASME J Non-destructive Evaluation*, 5(3): 031004.

Ebook	Hammond, C. <i>The Basics of Crystallography and Diffraction</i> , 4th ed.; International Union of Crystallography Texts on Crystallography, Vol. 21; Oxford University Press, 2015. DOI: 10.1093/acprof:oso/9780198738671.001.0001
Book in print	Frankel, F. <i>Picturing Science and Engineering</i> ; MIT Press, 2018
E-book chapter	Hammond, C. <i>Crystal Symmetry</i> . In <i>The Basics of Crystallography and Diffraction</i> , 4th ed.; International Union of Crystallography Texts on Crystallography, Vol. 21; Oxford University Press, 2015; pp 99–134. DOI: 10.1093/acprof:oso/9780198738671.003.0004
Book chapter in print	<ol style="list-style-type: none"> <li>1. <i>Performance Optimization of a Pine Oil Fuelled Agricultural Engine Using Grey-Taguchi Approach Renewable Energy Systems: Modeling, Optimization and Applications</i>, Scrivener Publishing LLC, PP 191-215, Print ISBN:9781119803515, Online ISBN:9781119804017, 2022 DOI: <a href="https://doi.org/10.1002/9781119804017.ch8">https://doi.org/10.1002/9781119804017.ch8</a></li> <li>2. <i>Optimization of PV Electrolyzer for Hydrogen Production Renewable Energy Systems: Modeling, Optimization and Applications</i>, Scrivener Publishing LLC, PP 295-325, Print ISBN:9781119803515, Online ISBN:9781119804017, 2022. DOI: <a href="https://doi.org/10.1002/9781119804017.ch12">https://doi.org/10.1002/9781119804017.ch12</a></li> <li>3. <i>Experimental Performance Analysis of Multi-Parabolic Flat Plate Solar Collector Emerging Trends in Mechanical and Industrial Engineering, Lecture Notes in Mechanical Engineering</i> PP 159–172, eBook ISBN978-981-19-6945-4, 2023, DOI: 10.1007/978-981-19-6945-4_12</li> <li>4. <i>A Review of Low Temperature Combustion Techniques and The Evolution of Combustion Strategies, Emerging Trends in Mechanical and Industrial Engineering, Lecture Notes in Mechanical Engineering</i> PP 159–172, eBook ISBN978-981-19-6945-4, 2023. DOI: 10.1007/978-981-19-6945-4_6</li> <li>5. <i>Lithium-Ion Battery Thermal Management Systems with different Medium and Techniques for Electric Driven Vehicles, Thermal Energy Systems-Design, Computational Techniques, and Applications</i>, Routledge-Taylor and Francis Group, 2023. DOI: 10.1201/9781003395768-12</li> <li>6. <i>Analysis of Optimum Operating Parameters For Ground Source Heat Pump System for Different Cases Of Building Heating And Cooling Mode Operations, Thermal Energy Systems-Design, Computational Techniques, and Applications</i>, Routledge-Taylor and Francis Group, 2023. DOI: <a href="https://doi.org/10.1201/9781003395768-11">https://doi.org/10.1201/9781003395768-11</a></li> </ol>

Ebook with editors	<i>Mom the Chemistry Professor: Personal Accounts and Advice from Chemistry Professors Who Are Mothers</i> , 2nd ed.; Woznack, K., Charlebois, A., Cole, R. S., Marzabadi, C. H., Webster, G., Eds.; Springer, 2018. DOI: 10.1007/978-3-319-78972-9
Ebook series	Gaede, H. C. <i>Professional Development for REU Students</i> . In <i>Best Practices for Chemistry REU Programs</i> ; Griep, M. A, Watkins, L., Eds.; ACS Symposium Series, Vol. 1295; American Chemical Society, 2018; pp 33–44. DOI: 10.1021/bk-2018-1295.ch003
Encyclopedia article in print	<i>Chloramines and Bromamines</i> . In <i>Kirk-Othmer Encyclopedia of Chemical Technology</i> , 4th ed.; Wiley, 1993; Vol. 4, pp 931–932
Encyclopedia article with author and/or editor	Vallero, D. A. <i>Air Pollution</i> , ver. 3. In <i>Kirk-Othmer Encyclopedia of Chemical Technology</i> ; Wiley, 2015. Updated March 16, 2015. DOI: 10.1002/0471238961.01091823151206.a01.pub3
Encyclopedia article with no author	<i>Lithium-Ion Battery Anodes Produced from Waste Plastic Bags</i> . In <i>AccessScience</i> ; AccessScience Eds.; McGraw-Hill Education, 2019. DOI: 10.1036/1097-8542.BR0301191 (last reviewed March 2019)

## 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 Communications Engineering 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. This full time programme is of two year duration and the part time programme is 3.5 years 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 Electrical Engineering Department provides a strong input of electronics so that the students can envisage a fruitful career in the field. Several alumni who excelled in Government sector, electronics, IT and other industries are proof of this.

### **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 Master's 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.

### **Thrust Areas of Research**

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 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.
- 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.

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

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

### Facilities in the Department

The Department has the state-of-the-art Laboratories Basic Electronics Lab, Power Electronics Lab, Control Lab, Electrical Machines Lab, Computer Simulation Lab, Microprocessors Lab.

### Ongoing Research Projects

Details of Projects ongoing in the department

SI. No.	Title of the collaborative activity	Name of the collaborating agency with contact details	Name of the participant	Year of collaboration
1	Power Lab (Simulation)- Virtual Lab	MOE	Dr. D. K. Chaturvedi	On Going
2	Different Energy Vector Integration for storage of Energy	DST	Dr. Sailesh Babu	On Going
3	Lab-on-Chip Biosensor for Rapid, Label Free and Ultrasensitive Virus Detection using Additive Manufacturing Techniques	DST	Ms. Shamima Khatoon	On Going
4	AICTE Training and Learning (ATAL) Academy FDP title- Renewable Energy Resources and Rural Electrification: Challenges and Solutions	AICTE	Dr. Ajay Saxena	Completed
5	Control Lab-Virtual Lab	MOE	Dr. Rajeev Kr. Chauhan	On Going

### Faculty/Staff Achievements/ Awards/ Faculty Development Programme Achievement

- An ATAL FDP was organized by Dr. Rajeev Chauhan of the Department of Electrical Engineering, Dayalbagh Educational Institute, Agra, on Renewable Energy Resources and Rural Electrification: Challenges and Solutions of India for the Coming Decade, from 10-21 October, 2022. The special invited guest for the lecture was Prof S. N. Singh, the Director, Atal Bihari Bajpayee- Indian Institute of Information Technology and Management Gwalior (MP).
- Dr. Subho Upadhyay was invited as the Guest Speaker for the Energy Centre, Maulana Azad National Institute of Technology (MANIT) Bhopal is organizing a one-week high-end workshop on Hybrid Electric Vehicles and Alternative fuels from 12 -18 June 2023, under the KARYASHALA Scheme as part of a SERB initiative.

### Students Achievements/ Awards

Isha Jain, Sakshi Jain, of Team- Ramalaya, students of the institute were awarded Winner Student Innovation, Smart India Hackathon, Ministry of Education on 26 August, 2022.

### Workshops/Conferences/Seminars/Webinars Organized

- One Day Workshop was organized by the Department of Electrical Engineering, Dayalbagh Educational Institute, Agra and IEEE SB-DEI, IAS, WIE, on "Technology Trends and Some Learnings for the Coming Decade", from 23/03/2023 to 23/03/2023 The special invited guest for the lecture was Mr. Avinash Singh.
- Two-week workshop was organized by the Department of Electrical Engineering, Dayalbagh Educational Institute, Agra and IEEE SB-DEI, on "on MATLAB & Simulink", from 12/06/2023 to 22/06/2023 The special invited guest for the lecture were Mathworks Team (Manoj Kumar, and Pratyush Roy).

### Workshops/Conferences/Seminars/Webinars Attended

- Dr. Gufran Ahmad and Dr. Subho Upadhyay participated in Refresher Course Advanced Research Methodology from 22 December 2022 - 5 January, 2023, organized by Ramanujan College, University of Delhi). He also participated in FDP on Analog and Mixed Signal Design using Synopsys Tool from 16-21 June 2023 from Synopsys Academic and Research Alliances.

### Placements

The students of the Department got placed in high reputed firms and companies like Cadence Design Systems, Keysight Technologies, Torrent power Ltd, JSW ENERGY, Airtel, ORC Engineering pot, Tech Mahindra, Blue Star, Capillary Technologies India Ltd., Technovative Systems Private limited, PIE INFOCOMM PVT. LTD, mfilterit (six Dee netad solutions), Beetroot Design Studio, Nelson Overseas , Konica Minolta India.

### Publication

- Singh S, Srivastava DP, Patvardhan C. (2023). Quantum Taut-Fant. Indian Journal of Science and Technology.16(9), 660-7.
- Sharma, L., Chellapilla, V. L., & Chellapilla, P. (2023). Socio-inspired evolutionary algorithms: a unified framework and survey. Soft Computing, 1-30.
- Chaturvedi S, Patvardhan C, Lakshmi CV. (2023). AI Value Alignment Problem: The Clear and Present Danger. In 2023 6th International Conference on Information Systems and Computer Networks (ISCON) 1-6. IEEE.
- Varshney S, Lakshmi CV, Patvardhan C. Madhubani (2023). Art Classification using transfer learning with deep feature fusion and decision fusion-based techniques. Engineering Applications of Artificial Intelligence, 119, 105734.
- Varshney S, Vasantha Lakshmi C, Patvardhan C. (2023). Traditional Indian Textile Designs Classification Using Transfer Learning. In Machine Learning, Image Processing, Network Security and Data Sciences: Select Proceedings of 3rd International Conference on MIND 371-385. Singapore: Springer Nature Singapore.
- Varshney S, Singh S, Lakshmi CV, Patvardhan C. (2023). Traditional Indian Textiles Classification using Deep feature fusion with Curvelet transforms. In 2023 6th International Conference on Information Systems and Computer Networks (ISCON) 1-5. IEEE.

- Jha PK, Teotia F, Saxena AK. (2023). *Cyber Security in the Indian Electricity Distribution System: A Review*. (2023). In *2023 5th International Conference on Energy, Power and Environment: Towards Flexible Green Energy Technologies (ICEPE)* 1-6. IEEE.
- Tagaram Kndala Rao, Janardhana K, Simha (2023). *Potential Benefits of Exposure to Nature on Cognition in School Students: A Review*. *Scandinavian Journal of Information Systems*. 35(1):986-90.
- Janardhana K, Singh V, Singh SN, Babu TR, 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* 204-223. IGI Global.
- Khatoon S, Khandelwal A, Raj A, Ahmad G. (2023). *Fabrication of FFF 3D-printed surfaces for PMMA-based biomedical device employing the pre-processing optimization to eliminate the post-processing steps*. *Progress in Additive Manufacturing*, 1-2.
- Pancham PP, Mukherjee A, Yuan BL, Yu P, Chiu WH, Ahmad G, Mallik S, Lo CY. (2023). *Novel graphene transfer method to silicone and its sensing application on porous PDMS*. *IEEE Sensors Letters*.
- Pancham PP, Mukherjee A, Yuan BL, Yu P, Chiu WH, Ahmad G, Mallik S, Lo CY. (2023). *Novel graphene transfer method to silicone and its sensing application on porous PDMS*. *IEEE Sensors Letters*.
- Kalra MP, Sameer M, Ahmad G. (2023). *A Deep Convolutional Neural Network Approach for Reliable Brain Tumor Detection and Segmentation System*. In *2023 3rd International Conference on Intelligent Technologies (CONIT)* 1-4 IEEE.
- Singhal M, Ahmad G. (2023). *Deep Learning Based Real Time Face Recognition for University Attendance System*. In *2023 International Symposium on Devices, Circuits and Systems (ISDCS) 2023 May 29 1 01-04*. IEEE.
- Swaroop KS, Ahmad G. (2023). *Design of CMOS Memristor Emulator and Logic Gates for Neuromorphic Circuits*. In *2023 International Symposium on Devices, Circuits and Systems (ISDCS) 1*. 1-6. IEEE.
- Khatoon S, Ahmad G. (2022). *Image Processing and Pattern Recognition of Micropores of Polysulfone Membrane for the Bio-separation of Viruses from Whole Blood*. In *International Conference on Recent Trends in Image Processing and Pattern Recognition* 151-163. Cham: Springer Nature Switzerland.
- Singh AG, Chauhan RK. (2023). *An algorithmic-based energy sharing model with peer-to-peer energy trading for clustered residential buildings*. *Journal of Building Engineering*.
- Mathur A, Dhaked D, Gupta H, Singh N, Chauhan RK. (2023). *Comparative Study of Regression Models for PV Power Prediction*. In *2023 XIX International Scientific Technical Conference Alternating Current Electric Drives (ACED)* 1-5 IEEE.
- Upadhyay A, Das G, Chauhan RK. (2023). *Aluminium-Sulfur Batteries: A low-cost Alternative to Lithium-ion Batteries*. In *2023 XIX International Scientific Technical Conference Alternating Current Electric Drives (ACED)* 1-5 IEEE.
- Panit V, Chauhan RK. (2023). *Evaluation of Different State of Charge Estimation Techniques for Electric Vehicles*. In *2023 XIX International Scientific Technical Conference Alternating Current Electric Drives (ACED)* 1-5 IEEE.
- Saha S, Saini G, Chauhan A, Upadhyay S, Elavarasan RM, Lipu MH. (2023). *Optimum design and techno-socio-economic analysis of a PV/biomass-based hybrid energy system for a remote hilly area*

using discrete grey wolf optimization algorithm. *Sustainable Energy Technologies and Assessments*, 57, 103213.

- Malik P, Awasthi M, Upadhyay S, Agrawal P, Raina G, Sharma S, Kumar M, Sinha S. (2023). Planning and optimization of sustainable grid integrated hybrid energy system in India. *Sustainable Energy Technologies and Assessments*, 56, 103115.
- Mishra S, Saini G, Chauhan A, Upadhyay S, Balakrishnan D. Optimal sizing and assessment of grid-tied hybrid renewable energy system for electrification of rural site. *Renewable Energy Focus*, 44, 259-276.
- Amoriya V, Chauhan RK, Panit V, Jahanvi, Verma S, Mittal S, Upadhyay S, Chauhan K, Cardenas A. Modeling of bidirectional electric vehicle charger for grid ancillary services. *International Journal of Emerging Electric Power Systems*, (0).

## 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

The Department of Botany was established in 1970 as a part of REI Degree College affiliated to Agra University. It became an independent department of DEI in 1981. In 2023 Department of Botany was renamed as Department of Agriculture Science. Present faculty strength is 20, including Prof. Emeritus, Dairy staff, Adjunct Faculty, Temporary staff, and Teaching interns.

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 1986-87, Department shifted to Science Faculty and later in 2014, it shifted to its present location, Dairy Campus.

It is strongly committed towards Hi-tech research that is relevant to the society, especially the farmers. 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 and Green House Technology
- M.Voc. In Dairy Technology;
- Modular course in Mushroom Cultivation and Certificate course in Agriculture Science

- Ph.D.
- M. Voc. Dairy Technology
- 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 has developed and 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 Pot. 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**

Microbiology; Biotechnology; Phycology; Plant Physiology, Environmental Biotechnology; Waste management; Medicinal and aromatic plants, Seed Technology, etc.

### **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.

- Department recently, Organized an Educational trip to Dr Y S Parmar University of Horticulture and Forestry, Solan, H.P. in July,2023. BSc students of Sem-I (apprenticeship program) and other students (total 23) visited and learnt Floriculture, Dry Flower units, Mushroom cultivation, Horticulture and Pomiculture activities in open, Low-Tech and Hi-Tech polyhouses/net houses.
- Van Mahotsav was celebrated and plantation program was done by CGST and Central Excise Commissionerate, along with D.E.I., under the banner of Govt. of India, Ministry of Environment. One thousand saplings were planted, in Shanti Nagar Biodiversity Park.
- Divisional and Sub Divisional Forest Officer made a visit to our Biodiversity parks and gardens, for future plantation programme.
- Prof. Akali Sema, pro vice Chancellor of Nagaland University visited the Department for future collaboration

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

- Cold Chambers facility for Mushroom cultivation in collaboration with and at 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 Freezer (-80 0 C), Deep Freezer (-20 0 C), 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 Hygiene), Microtome, Extensio (Antibiotic residue testing).

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

- Dr. Sanjay Yadav, Dr. Anuradha Patel and Dr. Shubha Anand received research Seed money grant of 2 lakh rupees from Dayalbagh Educational Institute under Non-Government Fund, 2022.

### **Ongoing Research Projects**

1. Development of steel slag-based cost-effective eco-friendly fertilizers for sustainable agriculture and inclusive growth funded by Ministry of Steel and Steel Industry [Code 24-774 (TG-3655)].  
PI- Dr. Akhilesh Kumar; Co-PI- Dr. Rajiv Ranjan, Duration: September 2021 to August 2024 (3 Years)  
Total Funding: Rs. 75,23,300 (Seventy-Five Lakh Twenty-Three Thousand Three Hundred Only)
2. Development of agriculture and industrial waste-based formulation to be used as fertilizer for sustainable agriculture [No.F.30-560/2021(BSR)], PI- Dr. Akhilesh Kumar, Duration: 08 December 2021 to 07 December 2023. Total Funding: Rs 10,000,00 (Ten Lakh Only)
3. Socio-economic empowerment of the Tribes in the Rajaborari estate, Madhya Pradesh through scientific and technological interventions, Co-PI: Dr. Rajiv Ranjan & Dr. Prem Saran Tirumalai, Duration: July 2021 to June 2024 ,Total Funding: INR.2.1 Crores

### **Patents 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. Patent Application No 202211072803.

### **Copyrights Granted**

Title of the Copyright - CFUCalc (Android based/iOS-based Application-Software)

Owner - Dr. Prem Saran Tirumalai

Copyright Diary Number: SW-17006/2023

### **Achievements/ Awards/ Recognitions**

- Dr. Rajiv Ranjan delivered an invited talk in National Conference (NCDBCS-2023) on March 21, 2023 entitled Depletion of Biodiversity & Conservation Strategies, organized by Department of Zoology, Agra College, Agra.
- Dr. Rajiv Ranjan delivered an invited talk in International Conference (MAESASS-2023) on June 4, 2023 organized by Council of Research & Sustainable development at Department of Biochemistry SLS, Bhimrao Ambedkar University, Agra.
- Dr. Akbar Ali delivered a speaker talk on Skilling Education & Entrepreneurship Initiatives for Inclusive Growth at the Dayalbagh Educational Institute, One day Conclave on Skill India (G20 S20) at IIT Mandi, Himachal Pradesh, June 25, 2023.
- Dr. Preksha Shrivastav delivered a talk on the topic Soil Testing at the Agri-Clinics and Agri-business MGES Training Centre; organized by MGES in association with NABARD on June 8, 2023.
- Dr. Sharmita Gupta got Lifetime Achievement Award in International Research Awards on Science, Technology and Management December 21, 2022 INSO AWARDS
- Dr. Sharmita Gupta was awarded MCSB Award, for most chapters in a single book by Blue Rose Publishers in 2022.
- Dr. Sharmita Gupta was awarded Certificate of Excellence in reviewing in Annual Research & Review in Biology January 5, 2023. Certificate No: SDI/HQ/PR/Cert/95272/DRS.
- Dr. Sharmita Gupta is Reviewer and presently, Nominated Editor, Annals of Plant and Soil Research for the period January 2023 to December 2024.
- Dr. Prem Saran Tirumalai was selected as Panel Member in the National Scientific Panel of the Food Safety & Standards Authority of India (FSSAI), Ministry of Health & Family Welfare and was selected as Member in the National Microbiology Sub-committee for the preparation of Microbiological Manuals of the Food Safety & Standards Authority of India (FSSAI), Ministry of Health & Family Welfare.
- Dr. Vijay Kumar Dalal was awarded certificate of excellence in reviewing by International Journal of Plant & Soil Science, April, 2023. Certificate No: SDI/HQ/PR/Cert/98170/VIJ.

### **Students Achievements/ Awards**

- Hunny Waswani has been awarded with DST-Inspire fellowship (2023).
- Manaswi Rani has qualified GATE-XL (2022).
- Harshit Mangal scored 99.95 percentile with All India Rank 32 in CSIR UGC NET December 2022-June 2023.
- Navneet Kaur and Shalu Gupta won the best poster presentation award and Krishan Kant won the best oral presentation award at GAASFSL-2023 in three days January 21-23, 2023 International Conference on Global Approaches in Agriculture and Allied Science for Sustainability, Food Security and Livelihood (GAASFSL-2023) at Agra organized by SVPSS, Prayagraj, Agra college and MAHG University, Garhwal, Uttarakhand.

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

- Dr. Vijay Kumar Dalal completed 07 days Faculty Development Programme from June 24-30, 2023 in online Mode on Artificial Intelligence for Smart Agriculture organized by Sanskriti University, Mathura, U.P. and Rani Laxmibai Central Agricultural University, Jhansi, U.P.
- Dr Preksha Shrivastav attended Faculty development program (FDP) on the topic Indian Knowledge System Organized by KIIT College of Education, Sohna Road, Gurugram in collaboration with Council for Teachers Professional Development (CTPD), India from June 19-25, 2023.
- Preksha Shrivastav, Gauri Vashishtha, Harshit Mangal Santendra Kumar Soni, Jeetendra Singh presented an article in National System conference from June 27-29, 2023, Organized by Dayalbagh Educational Institute, Dayalbagh, Agra-5.
- Sharmita Gupta participated in Webinar on 'Monkey Pox: Preventive and curative measures' held on August 18, 2022, organized by UGC HRDC, Doctor Hari Singh Gour Vishwavidyalaya, Sagar, M.P. She also participated in a workshop on E-Content creation, on December 7, 2022, organized by Gurushala and K.R. Mangalam University, Gurugram and also in Training Programme on 'Professional ethics and code of conduct for teachers on November 10, 2022, organized by K.R. Mangalam University, Gurugram in collaboration with CTEF, Delhi-NCR Chapter. She also participated in International Short term training program V on Production and regulation of chemicals and toxins for Environmental conservation, from December 7-13, 2022, organized by Raj Rishi Govt. Autonomous college, Alwar, Rajasthan and in National workshop on Lumpy skin disease in India, Current problems and future challenges on Januray 27, 2023, organized by ICAR, Nivedi, Bengaluru. She also participated in International short-term training program VI, Greener living: Reduce, Reuse and Recycle from February 1-7, 2023, organized by Raj Rishi Govt. Autonomous College, Alwar, Rajasthan. She also attended a national seminar on International Day of Immunology held on May 6, 2023, organized by Department of Zoology, Faculty of Science, Dayalbagh Educational Institute, Agra
- Rajat P Singh, Richa, Dr. Akhilesh Kumar participated in National Conference on Recent Trends & Experimental Approaches for Sustainable Development and Conservation of Biodiversity, held during March 25-26, 2023. D.B.S. College, Kanpur
- Rajat P Singh, Dr. Akhilesh Kumar and Devendra Arya participated in International Science Congress on Rural Technology and Development held during February 15-17, 2023. organized by BBAU, Lucknow and NASI, India.
- Rajat P Singh, R. K. Agnihotri and Dr. Akhilesh Kumar participated in the international conference Biotechnology for Sustainable Bioresources and Bioeconomy held during December 7-11, 2022 organized by BRSI & IIT, Guwahati.
- Rajat P Singh, Sunita Devi, Dr. Akhilesh Kumar participated in 45th (Inter) National System Conference Global Sustainability through Lacto-Vegetarian Agroecology Systems held during September 26-29, 2022 organized by DEI, Agra.
- Akbar Ali participated in a one-day online workshop on Intellectual Property Commercialisation on January 21, 2023, Organized by Turnip Innovations Pvt Ltd. Kolkata, India.
- Mukta Satsangi, Dr. Akbar Ali and Sayeed Ahmad participated in: International Conference on Food and Nutritional Security & 5<sup>th</sup> International Plant Physiology Congress & 44<sup>th</sup> Annual Meeting of Plant Tissue Culture Association (India), January 6-9, 2023, organized by NABI-CIAB, Mohali, India.
- Abhishek Sagar, Shalu Gupta, Krishan Kant, Navneet Kaur, Parnika Jindal, Deepak Tyagi and Dr. Akbar Ali participated in International Conference on Global Approaches in Agriculture and Allied Sciences for Sustainability, Food Security and Livelihood (GAASFSL-2023), January 21-23, 2023, at Agra College, Agra.
- Kant Krishan, Gupta Shalu, Kaur Navneet, Jindal Parnika, and Dr. Akbar Ali participated in the National Conference on Depletion of Biodiversity and Conservation Strategies (NCDBCS-2023) on

March 21, 2023 jointly organized by Department of Zoology and Biotechnology, Agra College, Agra and in National Conference on Recent Trends & Experimental Approaches for Sustainable Development and Conservation of Biodiversity, D.B.S. College, Kanpur held during March 25-26, 2023.

- Khandelwal A, Patel A, Tiwari A presented paper in National Symposium on Recent trends in plant sciences, Udaipur Chapter of IBS Indian Botanical Sciences, held on March 2, 2023. Udaipur organized by Mohanlal Sukhadia University Udaipur and participated in (International Science Congress for Rural Technology and Development (ISCRTD-2023) held during February 15-17, 2023 organized by Department of Management Studies, Babasaheb Bhimrao Ambedkar University, (A Central University), Lucknow.
- Patel, A and Tiwari, S participated in National Symposium on Recent trends in plant sciences, Udaipur Chapter of Indian Botanical Sciences, Udaipur held on 2nd March 2023. organized by Mohanlal Sukhadia University Udaipur.
- Dr. Vijay Kumar Dalal gave oral presentation at the 3rd Edition of International Nutrition Research Conference held on September 12-13, 2022 organized by Magnus Conferences and in National conference on Sustainable Environment: Challenges and Opportunities on August 29-30, 2022 at the School of Liberal Arts and Sciences, Era University and participated in webinar Research Integrity: How Pre-printing Can Enhance Trust in Research, September, 2022 organized by the Research Square Webinar.
- Dr. Vijay K Dalal, Niharika Dixit and Lavi Sharma presented poster in the 5th International Conference on Dayalbagh (Art) Science (& Engineering) of (Evolutionary/Re-Evolutionary) Consciousness (DSC) & The 46<sup>th</sup> (Inter) National Systems Conference (NSC) 2023 and attended The Plant Cell Focus issue webinar Plant responses to Abiotic Stresses, February, 2023 organized by American Society of Plant Biologists.
- Shubha Anand gave an oral presentation at the 3<sup>rd</sup> Edition of Euro-Global Conference on Biotechnology and Bioengineering from June 14-15, 2023 organized by Magnus group conferences and also presented poster at 46<sup>th</sup> National Systems Conference on June, 2023 organized by DEI. She also attended National Seminar on Immunology Talks to Public Health on May 6, 2023 conducted by the Department of Zoology, DEI, Agra.
- Preksha Shrivastav participated in the Three Day International Workshop on Academic Writing and Publishing from August 4-6 2022, organized by the Department of English, Institute of Aeronautical Engineering, Hyderabad and participated in World Soil Day Virtual National Workshop on Soil, where food begins on December 6, 2022 organized by VIT School of Agricultural Innovations and Advanced Learning (VAIAL), Vellore Institute of Technology, Vellore and also participated in the 5th International Conference on Dayalbagh (Art) Science (& Engineering) of (Evolutionary/Re-Evolutionary) Consciousness (DSC) & The 46<sup>th</sup> (Inter) National Systems Conference (NSC) 2023 and also in National Seminar conducted by the Department of Zoology, Dayalbagh Educational Institute (Deemed to be University), Agra on May 6, 2023 sponsored by the Indian Immunology Society (IIS).
- Prity Mehta presented oral presentation in the 5<sup>th</sup> International Conference on Dayalbagh (Art) Science (& Engineering) of (Evolutionary/Re-Evolutionary) Consciousness (DSC) & The 46<sup>th</sup> (Inter) National Systems Conference (NSC) June 27-29, 2023.
- Pooja Saraswat attended an online course on Molecular Cloning from March 28-31, 2023 conducted by Flow cytometry Solutions (p) td, Jaipur, India and participated in a national workshop on Recent Trends in Gardening Practices and their Entrepreneurial Ventures on March 14-15, 2023 conducted by Department of Botany, St. John's College, Agra and participated in a national workshop on Novel Agricultural System NAS 3.0-2023 from February 18-24, 2023 conducted by Doon PG college of Agriculture science and Technology SGTU, Gurugram. She also attended a 3 Days National

Workshop on ORGANIC FARMING through Nutrition Security and Environment Sustainability from September 26-28, 2022 organized by Just Agriculture & Niftem, Kundli, Haryana.

- Nishi Sharma participated in an International Conference on Contemporary Multidisciplinary Issues in Applied Sciences, Humanities, Agriculture, Animal Health & Production, (ASHAA-2022) November 14 to 15, 2022 organized by Rajiv Gandhi South Campus, Banaras Hindu University and in World Soil Day, Virtual National Workshop on Soil, where food begins held on December 6, 2022 organized by VIT School of Agricultural Innovations and Advanced Learning, Vellore Institute of Technology, Vellore. She also participated in ICSSR sponsored International Seminar and presented Paper in Technology for Environmental Sustainability, Socio-Economic Responsibility and Associated Entrepreneurial opportunities in Society and Rural Environment from March 16-17, 2023 organized by Sri Aurobindo College, University of Delhi.
- Ayushi Singh attended a Faculty Development Program cum Workshop on Quality Writing of Research Projects and Publications in hybrid mode held on 12-16 Dec 2022 jointly organized by Faculty of Agricultural Sciences, SGTU, Gurugram and Hindustan Agricultural Research Welfare Society, Agra (Registered under MSME, Govt. of India).
- Deeksha Singh attended a 4 Hours Online certificate course in Strategy of cloning and production of Recombinant Protein in E. coli host on September 25, 2022 organized by Biodukator. She also attended a national workshop on Recent trends in gardening practices for entrepreneurial ventures held on March 14-15, 2023 organized by Department of Botany, St John's College, Agra.
- Deeksha Singh, Shivangi Mathur, Shubhangi Singh and Manaswi Rani attended a national seminar on International Day of Immunology held on May 6, 2023, organized by Department of Zoology, DEI, Agra.
- Ambika Chaturvedi attended a Seven Days Skill Development Program on Primer designing, PCR & Real Time PCR for gene expression analysis from November 9-15, 2022 organized by Cytogene.
- Lovely Singh participated in the one-day national webinar on Intellectual property rights: An overview on January 21, 2023 organized by Department of Economics and IQAC in collaboration with World Bank and MPH EQIP (Academic Excellence Activities) and also presented Poster on January 31, 2023 Research Fair, organized by Dayalbagh Educational Institute, Agra. She also attended International Seminar on Agriculture food and environment and the Global Earth Challenge on May 3, 2023 organized by VIT School of Agricultural Innovations and Advanced Learning (VAIAL), Vellore Institute of Technology and participated in the national seminar to commemorate the International Day of Immunology. Theme: Immunology Talks to Public Health held on Saturday, May 6, 2023 organized by Department of Zoology, DEI.
- Shubhangi Singh and Manaswi Rani Participated and presented a poster in National Systems Conference Evolution of Homo Sapiens to Homo Spiritualis for Better Worldliness from June 27-29, 2023 organized by Dayalbagh Educational Institute, Deemed University Agra. They also participated in World Soil Day Virtual National Workshop on Soil, where food begins held on December 6, 2022 organized by VIT School of Agricultural Innovations and Advanced Learning (VAIAL), Vellore Institute of Technology, Vellore and in ICSSR sponsored International Seminar and presented Paper in Technology for Environmental Sustainability, Socio-Economic Responsibility and Associated Entrepreneurial opportunities in Society and Rural Environment from on March 16-17, 2023 organized by Sri Aurobindo College, University of Delhi.
- Krishan Kant attended the 5 Days National Level workshop on Research Paradigm and Hands on SPSS for Beginners held from August 1-5, 2022 organized by IOT academy Coimbatore, Tamil Nādu, India. He also attended the IPR awareness/training program under the special mission called National Intellectual Property Awareness Mission (NIPAM) on February 2, 2023, organized by Intellectual Property Office, India.

- Mukta Satsangi participated in Innovation Conclave-22 held on November 17, 2022, conducted by Centre for Teaching Support and Innovations (CTSI) at Jamia Hamdard, New Delhi. She also attended Master data analysis and visualizations using R on August 31, 2022 by Wiley Advanced Webinar Series and the International IASTAM Conclave 2022 on Multi-targeted therapeutics in Unani and Ayurvedic Medicine and Food Supplement held on July 29-30, 2022 at Jamia Hamdard, New Delhi. She also attended One day workshop on IPR Issues and Patenting of Herbal Drugs conducted by Centre of Excellence in Unani Medicine, Bioactive natural product laboratory on November 22, 2022 at Jamia Hamdard, New Delhi. She also presented poster at the international conference of Food and Nutritional Security held during January 6-9, 2023 at NABI, Mohali.
- Parnika Jindal attended the webinar on The Basics of Protein Analysis on November 8, 2022, produced by Labroots and also participated in the webucation program on Why Pharma Needs Omni Channel Communication Strategy? held on July 17, 2022 by Continuing Pharma Education.
- Priyanka Chaturvedi and Himani Parihar presented a paper at the 62<sup>nd</sup> Annual International Conference of Association of Microbiologists of India from September 21-23, 2022 conducted by the University of Mysore.

### Placements

- Pragati Yadav got placed as Lecturer in Inter college with the package of 5 lakhs per annum.
- Nitesh got placed as Lecturer in MPS Institutions with the package of 2.4 lakhs per annum.
- Shubha Dhawan got placed as Guest Lecturer in D.E.I. with the package of 6 lakhs per annum.
- Prasuna got placed as Guest Lecturer in D.E.I. with the package of 6 lakhs per annum.

### Publications

- Parihar, H., & Pathak, R., Tirumalai, P.S. (2023). Individual and Collective Effect of Lactic Acid Bacteria on *Staphylococcus aureus*. *Journal of Bacteriology & Mycology*, 2(2),87-91.
- 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. *J Microbial Exp*, 11(1), 20-24.
- Patel, A., Tiwari, S., Prasad, S. M. (2023). Modulation of salt stress in paddy field cyanobacteria with exogenous application of gibberellic acid: growth behavior and antioxidative status. *Physiology and Molecular Biology of Plants*, 29(3), 1-18.
- Jeetendra Singh; S.K. Soni. (2023). Impact of Salt stress on oleaginous green microalgae in Sustainability, *Agri, Food and Environmental Research*, 15, 175-183. ISSN-0719-3726.
- Sharma, N., Singh, B., and Soni, S.K. (2023). Cultivation of soybean seeds for preparation of soya tofu in *Journal of Research and Studies*, ISSN: 2455-5401. (ACCEPTED).
- Gupta, A.; Singh, D.; Prasad, M.; Saraswat, P.; Ranjan, R. (2023). Sustainable utilization of *Tylophora indica* (Burm. f) Merrill, An endangered medicinal plant. *Int. J. Bot. Stud.*, 8(4), 25-33.
- Mathur, S.; Singh, D.; Ranjan, R. (2023) Genetic circuits in microbial biosensors for heavy metal detection in soil and water. *Biochem. Biophys. Res. Commun.*, 652,131-137.
- Kant, K., Gupta, S., Kaur, N., Jindal, P., & Ali, A. (2023). Novel foliar approaches enhancing active constituents, flower yield and essential oil content in Damask rose (*Rosa damascena* Mill.): A review. *Journal of Plant Nutrition*, 46 (18), 4532-4558.
- Singh, A.; Tyagi, P.; Ranjan, R.; Sushkova, S. N.; Minkina, T.; Burachevskaya, M.; Rajput, V. D. (2023). Bioremediation of Hazardous Wastes Using Green Synthesis of Nanoparticles. *Processes*, 11(1), 141.
- Singh S, and Gupta S. (2023). Synergistic effect of *Cymbopogon citratus* and *Tecoma stans* against some Plant pathogenic bacteria, *Journal of Research and Studies* ISSN: 2455-5401. (Accepted)

- Rani M, and Gupta S. (2023). Evaluation of Microbial and Physico-Chemical analysis from Dairy Waste effluent in *Journal of Research and Studies*. ISSN: 2455-5401. (Accepted).
- Pandey N., Vimal S.R., Patel, A., Tiwari, S., Prasad, S. M. (2023). Copper nanoparticles (CuNPs) as enhancing agents for biomass production of algae and cyanobacteria: A Review. *Biochem. Cell. Arch.*, 23 (2), 663-669.
- Jeetendra Singh, S.K. Soni, Pragati Yadav (2022). Potential of *Azolla pinnata* for Phytoremediation of Sewage wastewater. *Sustainability, Agri, Food and Environmental Research*, 13,162-171. ISSN-0719-3726.
- Soni S.K., Sharma N., Rani M., and Singh S. (2022). Some medicinally important plants with their uses from Yamuna River, Agra Uttar Pradesh (India). *Journal of Medicinal Plant Studies.*, 10(5), 09-20.
- Tyagi P, Singh D, Mathur S, Singh A, Ranjan, R. (2022). Upcoming progress of transcriptomics studies on plants: An overview. *Front. Plant Sci.*, 13, 1030890.
- Mathur S, Waswani H, Singh D, Ranjan R. (2022). Alternative Fuels for Agriculture Sustainability: Carbon Footprint and Economic Feasibility. *Agri Engineering*, 4(4), 993-1015.
- Mathur S, Singh D, Ranjan R. (2022). Remediation of heavy metal (loid) contaminated soil through green nanotechnology. *Front. Sust. Food Syst.*, 6, 932424.
- Tyagi P, Ranjan R. (2022). Phytochemical Screening of all Active Components and Thin Layer Chromatography (TLC) Profiling of Diosgenin of All Parts of *Tribulus terrestris* and *Pedaliium murex*. *Zeichen J.*, 8(7), 387-403.
- Raghav N, Saraswat P, Srivastava J. N, Ranjan R. (2022). Metagenomics Study of Bacterial Communities from Yamuna River water of city of Taj, Agra. *bioRxiv*.
- Jha Y, Dehury B, Kumar S.P, Chaurasia A, Singh U.B, Yadav M.K, Angadi U.B, Ranjan R Tripathy, M Subramanian, R.B Kumar S. (2022). Delineation of molecular interactions of plant growth promoting bacteria induced  $\beta$ -1, 3-glucanases and guanosine triphosphate ligand for antifungal response in rice: a molecular dynamics approach. *Mol. Biol. Rep.*, 49(4), 2579-2589.
- Singh S, and Gupta S. (2022). Synergistic Effect of *Boerhaavia diffusa* and *Asparagus racemosus* against *Aspergillus fumigatus*, *Aspergillus niger*, *Fusarium moniliforme* and *Aspergillus terreus* *Annals of Plant and Soil Research*, 24 (4):571-577.
- Akhilesh Kumar, D.D. Tewari, Arvind Mishra, (2022). Ethnobotanical survey of wild vegetables of Pratapgarh district, Uttar Pradesh, India. *International Journal of Botany Studies*, 7 (1): 443-447
- Mehta Prity, Anand Shubha, Yadav Sanjay, (2022). Production and Characterization of Biodiesel by Base Catalyzed Transesterification Reaction from Dairy Waste Scum of DEI Dairy, Agra, *RRJoDST*, 11 (2),15-20.
- Raghav N., Shekhar S., & Yadav S. (2022). A Study on Water Quality Index of Polluted Water of River Yamuna at City of Taj. *International Journal of Creative Research Thought*, 10(1), 279-291.
- Raghav N, Sharma S, Singh P, Yadav S, Nigam R. (2022). A comprehensive case review on a microbial remediation of heavy metals and pesticides in the Yamuna River. *T Appl. Biol. Chem. J*, 3(1), 11-20.
- Pandey N., Patel, A., Tiwari, S., Prasad, S. M. (2022). Differential response of copper nanoparticles and ionic copper on growth, chlorophyll fluorescence, oxidative stress, and antioxidant machinery of two paddy field cyanobacteria. *Ecotoxicology*, 31(2), 18-29.
- Singh G., Patel, A., Tiwari, S., Gupta D., Prasad, S. M. (2022). Signalling molecules hydrogen sulfide (H<sub>2</sub>S) and nitric oxide (NO): role in microalgae under adverse environmental conditions. *Acta Physiologiae Plantarum*, 44:68, 1-15.
- Dalal, V. K., Dantu P.K. (2022). Induction of rosmarinic acid in callus cultures of *Ocimum sanctum*. *J Plant Biochem & Biotechnol.*, 32, 388–392. ISSN: 0974-1275

- Dalal V. K. (2022). Transcriptome of Laser Micro Dissected Tissue from SAM of Tomato Reveals Genes Responsible for Chloroplast Biogenesis, *Int J Agri Res Env Sci*, 2 (2), 1-6.
- Phurailatpam L, Dalal V.K, Singh N and Mishra S. (2022). Heavy Metal Stress Alleviation Through Omics Analysis of Soil and Plant Microbiome. *Front. Sustain. Food Syst.*, 5, 817-932.
- Dalal, VK, Dhawal P., Biswal A., Rajagopal, S., Raghavendra A.S. (2022). In vitro stability of various enzymes by proline from H<sub>2</sub>O<sub>2</sub> mediated oxidative damage. *Indian Journal of Biochemistry and Biophysics*, 59 (1), 111-125.
- Anand Shubha, Chandra Ishwar, (2022). Design and Study of Packed Bed Reactor for Decolourization of Molasses Based Distillery Spent Wash. *J. Indian Water Resour. Soc.*, 42,1-6.

## BOOK

- Dr. Akhilesh Kumar, Dr. Mogla Achal Maharaj Kishore (2022). *An introduction to rural development: theory and practice*. Published by S.R. Scientific Publications. Agra, ISBN No.- 978-9393483-072.
- Dalal, V. K., Misra, A. N. *A Closer Look at Photosynthesis, Biochemistry and Molecular Biology in Post Genomic Era*. Plant Science Research and Practices, Nova Science Publishers, NY, USA. June, 2023. DOI: <https://doi.org/10.52305/TOGT5511>
- Prem Saran Tirumalai., *Manual of Methods of Analysis of Foods (Dairy and Dairy Products)*, Food Safety & Standards Authority of India., Ministry of Health & Family Welfare., Govt of India.
- Prem Saran Tirumalai., *Compendium of Sampling Plan for Microbiological Analysis*, Food Safety & Standards Authority of India., Ministry of Health & Family Welfare., Govt of India.

## BOOK CHAPTERS IN PRINT

- 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; 149-172 ; ISBN: 979-8-88697-815-5
- Preksha Shrivastava; S.K. Soni; Jeetendra Singh and Sharmita Gupta; *Heavy metal study & Techniques in brief in Frontiers chemical, Biological and Pharmaceutical Sciences*, Vol. 1; Bhumi Publisher, 2023; pp 72-78 ISBN-978-93-88901-61-1.
- Vijay Kumar Dalal; Jeetendra Singh and S.K. Soni; *The Regulation of Photosynthesis by Droughts Revealed through Omics Studies in A closer look at photosynthesis*. Nova Publisher 2023; pp 149-172.
- Jeetendra Singh, S.K. Soni and Rajiv Ranjan; *Wolfiporia extensa (Peck) Ginns. (China Root) in Mushrooms: Nutraceuticals and Functional Foods* (CRC Press. (2022). doi:10.1201/9781003322238
- Jeetendra Singh, S.K. Soni and Rajiv Ranjan, *Biochar for the improvement of crop production*, chapter 13 Springer 2022 (Accepted)
- Singh, J., Soni, S.K, and Sharma, N *Biochemical Investigation of Mushroom in the Recent trends of Innovation in Chemical and Biological Sciences Volume II*; Bhumi Publisher ; 2022 (ISBN: 978-93-91768-71-3)
- Anand Shubha, Gupta Sharmita, *Animal protein bioplastics in Futuristic Trends in Biotechnology*, ISBN: 978-93-95632-88-1, IIP Proceedings, Volume 2, Book 27, Part 1, Chapter 5, 43-54
- Singh S, Rani M., Gupta S; *Spectrum of Mushroom varieties: Edible and Poisonous*. in the Book Titled *THE MUSHROOM: AN INCREDIBLE NATURAL RESOURCE* by :BLUE ROSE PUBLISHERS 2022 Pg no. 401-413, ISBN 978-93-5628-257-5

- Singh S, Rani M., Gupta S; *Futuristic Trends of Scope and Objectives in Plant Pathology*, In the Book titled *Research in Mycology Volume-I* by - BLUE ROSE PUBLISHERS 2022 Pg no. 334-344 ISBN-978-93-5668-523-9
- Rani M., Singh S, Gupta S; *Antibacterial Activities of Mushroom*, in the Book titled *The Mushroom: An Incredible Natural Resource* by: Blue Rose Publishers 2022 Pg no. 385-399 ISBN 978-93-5628-257-5
- Rani M ,Singh S and Gupta S; *Nutritive status of some common and medicinal plants in Recent Trends of Innovations in Chemical and Biological Sciences Vol. 3*; Bhumi Publisher; 2022; pp 114-121 (ISBN:978-93-91768-73-7)
- Singh L and Gupta S; *Antifungal Activities of Mushrooms* in the book titled *The Mushroom: An Incredible Natural Resource'* by BLUE ROSE PUBLISHERS 2022 Pg no. 285-296 ISBN: 978-93-5628-257-5
- Akbar Ali, M. Naeem, M. Idrees, Tariq Aftab, M. Masroor A. Khan, and Prem Kumar Dantu (2022). *Effect of presowing treatment of Co-60 gamma-irradiated chitosan on seed germination and seedling vigor in Eucalyptus citriodora Hook.* In: *Radiation-Processed Polysaccharides- Emerging Roles in Agriculture*, Naeem, M, Aftab T, Khan MMA (Eds.). Academic Press an imprint of Elsevier, USA. PP 321-337, ISBN: 978-0-323-85672-0
- Akbar Ali, Krishan Kant, Shalu Gupta, Navneet Kaur and M. Naeem (2023) *Enhancing nutritional and antidiabetic properties of Stevia rebaudiana Bert. - A Sweet-leaf plant through various scientific approaches.* In: *Anti-Diabetic Medicinal Plants: Applications and Opportunities*, M. Naeem and Tariq Aftab (Eds.). Springer International Publishing AG, Switzerland. (Accepted)
- Mehta Prity, Anand Shubha, Yadav Sanjay *Designer Milk: An innovative approach towards health sustainability Futuristic Trends in Agriculture Engineering & Food Science* ISBN: 978-93-95632-76-8 IIP Proceedings, Volume 2, Book 10, Part 3, Chapter 2 (2022)159-165
- Mehta Prity and Yadav Sanjay, *Dairy effluents : sources, characteristics and its environmental impact.* In the book title *Current and Future Perspectives of Environmental pollution and its Remediation* Published by Thanuj International Publishers. (2022)
- Aymen, U., Khan, M., Patel, A., Tiwari, S., Raju, A. D., Prasad, S. M., Singh R., Parihar, P. *Stress-inducible Proteins and their Roles under Heavy Metal Stress.* In *Heavy Metals in Plants Physiological to Molecular Approach* CRC press Taylor and Francis (2022);(pp. 323- 353).
- Pandey, A., Singh, G., Pandey, N., Patel, A., Tiwari, S., & Prasad, S. M. *Impacts of Environmental Stress on Physiology and Biochemistry of Cyanobacteria.* In *Ecophysiology and Biochemistry of Cyanobacteria* Springer, Singapore.(2022);(pp. 65-89).
- Tiwari, S., Patel, A., Pandey, N., Singh G., Pandey, A., Prasad, S. M. *Photosynthesis and Energy Flow in Cyanobacteria.* *Ecophysiology and Biochemistry of Cyanobacteria*, Springer.(2022); (pp 49-64).
- 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; 45-82; ISBN: 979-8-88697-815-5
- Dalal, V. K., Chauhan, A. S. *The Monitoring and Optimization of Photosynthesis through Technological Interventions and Automation.* In: *A Closer Look at Photosynthesis, Biochemistry and Molecular Biology in Post Genomic Era.* Plant Science Research and Practices, Nova Science Publishers. 2023; 107-122 ; 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; 197-214 ; 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; 245-283; ISBN: 979-8-88697-815-5
- Jain, P., Pandey, B., Rathore, S.S., Prakash, A., Singh, P., Sachan, A., Singh, S.P., Dalal, V.K. and Singh, A.K. *Crop Plants, Abiotic Stress, Reactive Oxygen Species Production, Signaling and their Consequences*. In: *Augmenting Crop Productivity in Stress Environment*. Springer, Singapore. 2022, pp ISBN : 981-16-6360-4

### E-BOOK CHAPTERS

- Singh, D., Mathur, S. and Ranjan, R. Roles of Strigolactone in Plant Growth and Development. In *Strigolactones, Alkarnides and Karrikins in Plants*. CRC Press.(2023).15
- Tyagi, P., Singh, A., Saraswat, P., Chaturvedi, A. and Ranjan, R. Sustainable agricultural approach to study interaction of plants and microbes. In *Plant-Microbe Interaction - Recent Advances in Molecular and Biochemical Approaches Agricultural Aspects of Microbiome Leading to Plant Defence*.(2), 2023;331-361.
- Singh, S., Saraswat, P., Ranjan, R. Microbial Waste Biomass as a Resource of Renewable Energy. In: Pal, D.B. (eds) *Recent Technologies for Waste to Clean Energy and its Utilization*. Clean Energy Production Technologies. Springer, Singapore. 2023, 63-78;
- Saraswat, P., Chaturvedi, A. Ranjan, R. CRISPR/Cas-mediated Genome editing for improvement of plant traits. In *OMICS analysis of plants under abiotic stress* CRC press. 2023 pp 305-320
- Singh, A., Tyagi, P., Saraswat, P., & Ranjan, R. Role of Nanoparticles in Tolerance Against Different Environmental Stress. In *Biology and Biotechnology of Environmental Stress Tolerance in Plants*. Apple Academic Press. 2023 (pp. 545-570)
- Saraswat, P., Waswani, H., & Ranjan, R. Genome-Wide Association Studies and Next-Generation Sequencing in Plant Response to Environmental Stress. In *Biology and Biotechnology of Environmental Stress Tolerance in Plants* . Apple Academic Press 2023,.(pp. 305-328)
- Tyagi, P., Singh, A., Saraswat, P., Chaturvedi, A., & Ranjan, R. . Transposable Elements and Polyploidy in Plants. In *Plant Transposable Elements* . Apple Academic Press.2023(pp. 179-203) ,
- Saraswat, P., Chaturvedi, A., Singh, A., Tyagi, P., & Ranjan, R. . Genome Engineering in Plants via Transposable Elements. In *Plant Transposable Elements* . Apple Academic Press ,2023, (pp. 313-332),
- Gupta, A., Saraswat, P., Prasad, M., & Ranjan, R. Molecular Mechanism and Adaptation Strategies of Plants Under Nutrient Deficiency/Toxicity Conditions. In *Omics Analysis of Plants Under Abiotic Stress* . Apple Academic Press. 2023; pp 153-178 10.
- Saraswat, P., Prasad, M., Gupta, A., & Ranjan, R. Genome Editing Applications in Abiotic Stress Tolerance in Plants. In *Omics Analysis of Plants Under Abiotic Stress* Apple Academic Press. 2023 pp 55-90 10.
- Tyagi, P., Singh, A., Gupta, A., Prasad, M., & Ranjan, R. Mechanism and function of salicylate in plant toward biotic stress tolerance. In *Emerging Plant Growth Regulators in Agriculture* Academic Press 2022; pp 131-164 .
- Tyagi, P., Singh, A., Ranjan, R. Hazardous elements in plants: sources, effect and management. In *Hazardous and Trace Materials in Soil and Plants* Academic Press. 2022; pp113-128 10.
- Raghav, N., Nigam, R., Mathur, S., Singh, D., & Ranjan, R. Microbial Degradation of Wastewater. In *Recent Trends in Wastewater Treatment* Springer, Cham. 2022; pp145-170

- Chaturvedi, A., Saraswat, P., Gupta, A., Prasad, M., & Ranjan, R. System Biology Approaches Used for Climate Change Resilient Crops. In *Omics Analysis of Plants Under Abiotic Stress* Apple Academic Press. 2022; pp207-239 10.
- Chaturvedi, A., Saraswat, P., Singh, A., Tyagi, P., & Ranjan, R. Chapter 10 Biostimulants: An Alternative to Chemical Pesticides for Crop Protection. *Biostimulants for Crop Production and Sustainable Agriculture*, CABI Books ,2022;139.
- Waswani, H., Gupta, A., Prasad, M., & Ranjan, R. Role of Insect Pest Management in Agriculture Conservation. In *Agrochemicals in Soil and Environment* Springer, Singapore. 2022; pp 231-250
- Singh, S., Gupta, A., Waswani, H., Prasad, M., & Ranjan, R. Impact of pesticides on the ecosystem. In *Agrochemicals in soil and environment* Springer, Singapore.2022; pp 157-181
- Saraswat, P., Gupta, D., & Ranjan, R. Increase the Ability of Transgenic Plant Expressing the Bacterial Enzyme to Accumulate Heavy Metals. In *Managing Plant Production Under Changing Environment* Springer, Singapore. 2022; pp 459-477 10.
- Chaturvedi, A., Saraswat, P., Gupta, A., Prasad, M., & Ranjan, R. Detoxification of Sewage Sludge by Natural Attenuation and Application as a Fertilizer. In *Sustainable Management and Utilization of Sewage Sludge* Springer, Cham.2022; pp 263-280 10.

## 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, Malaysia.

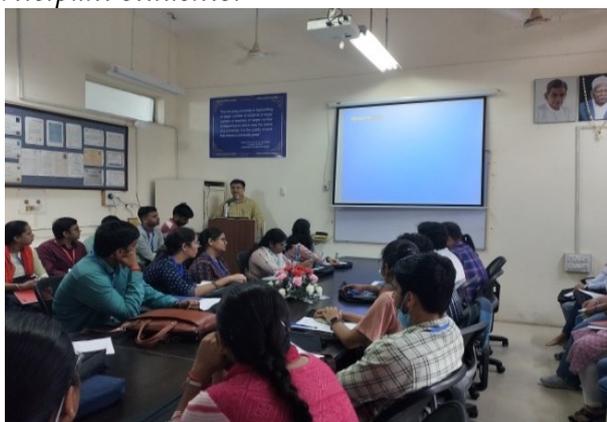
The faculty members have been nominated as Members to Science Academies and accorded distinctive awards/medals/prizes in their research areas. Faculty members regularly visit different Universities and Research Organizations in the country and abroad, in the capacity of Visiting Professor and Resource 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

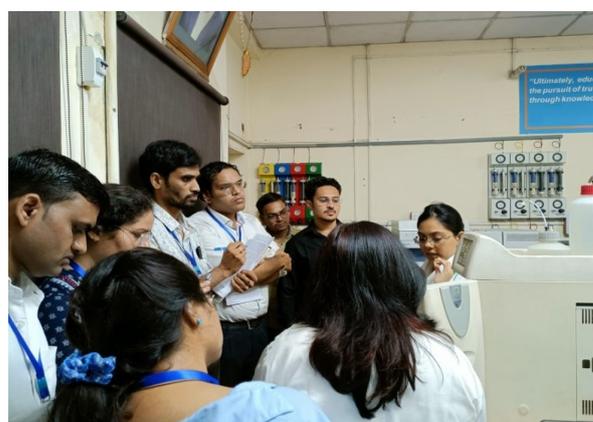
The department is equipped with state of the art instruments like X-Ray Diffractometer, High Performance Thin Layer Chromatograph, Ion Chromatograph, Atomic Absorption Spectrophotometer, Gas Chromatograph, UV-Visible Spectrophotometer, Potentiostat, Carbon Analyser, Online Ozone, NO<sub>x</sub> and CO 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 Training Program on 'Advanced Analytical Techniques.'

Department of Chemistry (DST - FIST Sponsored) organized a Training Program on 'Advanced Analytical Techniques' which was sponsored by the Indian Institute of Technology, Gandhi Nagar Under 'Synergistic Training program Utilizing the Scientific and Technological Infrastructure' (STUTI), Department of Science & Technology (DST), Govt. of India from 24 to 30 September 2022. A total of 30 participants were selected for the training of sophisticated and high-end equipments (Field Emission Scanning Electron Microscope, X-ray Diffractometer, Gas Chromatograph - Mass Spectrometer (coupled with Thermal Desorption Unit), Inductively Coupled Plasma Optical Emission Spectrometer, Thermogravimetric Analyzer & Differential Scanning Calorimeter, Ion Chromatograph) available in Department of Chemistry for the qualitative and quantitative analysis and characterization of samples. Resource persons for the program were experts invited from various organizations. Certificates were distributed to the participant students.



**Inaugural Session of Training Program  
on 'Advanced Analytical Techniques'**



**Lab Session on 'Ion Chromatography'  
(24.09.2022)**

### Celebration of Ozone Day, September 16, 2022

Ozone Day was celebrated by organizing poster and essay competitions to raise awareness about the importance of protecting the ozone layer.

### **Achievements/Awards/Recognition**

- Prof. Anita Lakhani received Varshney Award for outstanding contributions in Systems Science Applications in Environmental Systems at the XLVI (Inter) National Systems Conference on June 28, 2023.
- Muskan Agarwal received Best Paper award at the XLVI (Inter) National Systems Conference on June 28, 2023.
- Neelam Baghel received the Best Paper award at the Conference on Chemistry and Applied Science (ICCAS-2022) organized by Pingle Government College for Women, Hanumkonda, Warangal from 25-27, August 2022.
- Neelam Baghel received the Women Scientist Award-2022 at the 41<sup>st</sup> Indian Council of Chemists (ICC-2022) organized by the Institute of Basic Sciences Khandari, Agra from 27-29, December 2022.
- Gunjan Goswami received the Best Oral presentation award at the International Conference on Chemistry and Allied Sciences (ICCAS conference) entitled Morphological and Chemical Characterization of Sub-micron Particulate Matter Emitted During Holika Dahan held at NIT Warangal during 25-27 August 2022.
- Ms. Bhanupriya presented a paper entitled Role of thermal annealing in fabrication of bismuth ferrite thin films for photoelectrochemical water splitting and was awarded as the Best Paper for Energy Systems at the 45<sup>th</sup> (Inter) National Systems Conference (NSC 2022) organized on 26 – 29 September 2022 jointly by Dayalbagh Educational Institute and Systems Society of India.
- Neelam Baghel received the Young Researcher Award, 2023 in An Earthday Celebration (SASE-2023) organized by the Department of Dravyaguna Faculty of Ayurveda Institute of Medical Sciences, BHU, Varanasi & National Environmental Science Academy, New Delhi held from 22-23 April, 2023.
- Gunjan Singh received the best poster award at the International conference on hydro and renewable energy net- zero carbon energy systems, I.I.T Roorkee from 17-18 October, 2022.
- Arpan Agarwal qualified the IIT-JAM Chemistry 2023, and IIT-JAM Biotechnology 2023 exams. He also got selected and successfully completed the DEI Summer Research Fellowship Program 2022 (DSRFP-2022). He also participated and presented a paper at the session of Energy Systems in the 45<sup>th</sup> National System Conference (NSC 2022) organized on 26-29 September 2022 jointly by DEI and the System Society of India.
- Charandeep qualified the IIT-JAM Biotechnology 2023 and JGEEBILS (TIFR) GS 2023 exam. He was also selected for MSc in Interdisciplinary Biosciences from Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore and for MSc in Interdisciplinary Biosciences at JNCASR, Integrated PhD in Biological Sciences at IISER Kolkata, and MSc in Human Disease Genetics at Centre for Human Genetics (CHG), Bangalore.

### **Ongoing Research Projects**

- The Department was sanctioned the FIST Grant worth Rs. 1.30 Crore by DST for the period 2018-2022. In this grant, the department was sanctioned an Equipment grant to procure instruments like DTA-DSC, ICP-AES, and Thermal Desorption Unit along with an Infrastructure and Maintenance Grant.

### **Seminar/Symposia/Conference/Webinar/Workshops Attended**

- Rajat Sengar attended International Workshop on Innovative Practices in Research 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, April 17-21, 2023.

- Rajat Sengar attended National Seminar to commemorate the International Day of Immunology, Immunology talks to public health, Organized by Department of Zoology, Dayalbagh Educational Institute, Agra, May 6, 2023.
- Gunjan Goswami attended STUTI Program Organised by SATHI, Banaras Hindu University and NIT, Warangal, 25th 1st May 2023.
- Neelam Baghel attended Technological Emergence for Clean Water and Air (TECWA-2023) hosted by the National Institute of Technology Rourkela from 29 May - 2 June 2023.
- Surat Dewan attended the CAPHER-India consultation-cum-workshop on Air Pollution and Health in India: Current evidence to inform the India NAAQS revision process held on May 29, 2023, Tamarind Hall, India Habitat Centre, New Delhi.
- Jyoti Kushwaha, Radhika Singh, Density Functional Theory Approach for Cellulose: Intermolecular Forces, Dissolution Mechanism and Crystal Structure XXXXI annual conference of Indian Council of Chemists, from 27-29 December 2022.
- Radhika Singh, Significance of Lacto-vegetarian diet for connecting Microcosm to Macrocosm the Fourth International Conference Dayalbagh Science of Consciousness from 26-29 September, 2022.
- Ms. Kumari Ruchi presented a poster on Synthesis and characterization of  $MgFe_2O_4$  thin film for photoelectrochemical water splitting in the International Conference on Chemistry and allied Sciences (ICCAS-2022) held at Auditorium complex, Pingle government college for women (Autonomous) Hanumakonda, Warangal, India during 25-27 August, 2022.
- Isha Goyal, Simran Bamola, Muskan Agarwal, K. Maharaj Kumari, Anita Lakhani presented on Oxidative Potential of Size-Segregated Particulate Matter in the Dust-Storm at a Site in the Indo Gangetic Plain (IGP) in the ICCAS, 2022 at Warangal, India.
- Isha Goyal, Muskan Agarwal, Simran Bamola, K. Maharaj Kumari, Anita Lakhani, presented on Comparative Analysis of Air Quality over the Indo-Gangetic Plain (IGP) in the Era of Covid-19: Normal to the New Normal in the National System Conferences in 2022.
- Isha Goyal, K. M. Kumari and Anita Lakhani presented on Temporal Variation of Oxidative Potential of Water-Soluble Components of Ambient  $PM_{2.5}$  Measured by Dithiothreitol (DTT) Assay at a Site in the Indo-Gangetic Plain in the Goldschmidt Conference, Hawaii 2022.
- Gunjan Goswami, Simran Bamola, Isha Goyal, Muskan Agarwal, and Anita Lakhani presented paper at Environment Summit Environment and Social Development Association (ESDA) Delhi entitled Holi Festival (Biomass Burning and Chemical Colours: Diversion of Natural Instinct of the Holi Fest and Safety Issues conducted on 15-16 October, 2022.
- Gunjan Goswami, Simran Bamola, Isha Goyal, Muskan Agarwal, and Anita Lakhani presented a paper at the International Conference on Chemistry and Allied Sciences entitled Morphological and Chemical Characterization of Sub-micron particulate matter emitted during Holika Dahan held at NIT Warangal during 25-27 August 2022.
- Ms. Bhanupriya presented a paper entitled Role of thermal annealing in the fabrication of bismuth ferrite thin films for photoelectrochemical water splitting that was awarded as the Best Paper for Energy Systems at the 45th (Inter) National Systems Conference (NSC 2022) organized on 26 – 29 September 2022 jointly by Dayalbagh Educational Institute and Systems Society of India.
- Ms. Bhanupriya presented a poster on Fabrication of sodium niobate photoanode for photoelectrochemical water splitting at the International Conference on Chemistry and Allied Sciences (ICCAS-2022) held at Auditorium Complex, Pingle Government College for Women (Autonomous) Hanumakonda, Warangal, India during 25-27 August, 2022.
- Kirti Singh, K. Maharaj Kumari, and Aparna Satsangi presented a poster on Relationship between  $PM_{2.5}$  and  $PM_{10}$  Mass Concentrations (Indoors and Outdoors) at a Residential Site of Agra at the National System Conference from 26 -30 September 2022.

- Kirti Singh, K. Maharaj Kumari, and Aparna Satsangi presented a paper on Indoor- Outdoor Relationships of PM<sub>2.5</sub> mass at an Urban Residential Site of Agra: Its Measurements and Control at the International Conference on Chemistry and Allied Sciences (ICCAS-2022) held on 25 -27 August 2022, Warangal, India.
- Neelam Baghel, Anita Lakhani, K. Maharaj Kumari presented poster on Measurement of Volatile Organic Compounds from Gasoline-Powered Motor Vehicles at the traffic site of Agra: Source apportionment and Ozone forming potential in International Conference on International Conference on Chemistry and Applied Science (ICCAS-2022) held at Pingle Government College for Women, Hanumkonda, Warangal from August 25-27, 2022.
- Neelam Baghel, Anita Lakhani, and K. Maharaj Kumari presented on Variations in Atmospheric Pollutant concentrations during Haze event at a Downwind Site of the Indo-Gangetic Plain at the International Conference on World Environment Summit (WES-2022) held at Paintal Memorial Auditorium, V.P. Chest Institute, University of Delhi, New Delhi from October 15-16, 2022.
- Neelam Baghel, Sonal Kumari, Anita Lakhani, K. Maharaj Kumari presented on Comparison of Variation in Atmospheric Pollutant Concentrations during the Episodic Haze Event at a Downwind Site of Indo-Gangetic Plain at 41<sup>st</sup> Indian Council of Chemists (ICC-2022) held at Institute of Basic Sciences Khandari, Agra from December 27-29, 2022).
- Surat Dewan, Participation and poster presentation in iCACGP-IGAC2022 Conference, Manchester, September 10-15, 2022.
- Gunjan Goswami, Simran Bamola, Isha Goyal, Muskan Agarwal, and Anita Lakhani presented a poster at the 46th National Systems Conferences on Heavy Metals, Sources, and Health Risk Assessment of PM<sub>1</sub> in Urban and Sub-Urban Site at Agra held at Dayalbagh Educational Institute, Agra during 27-29 June 2023.
- Ms. Bhanupriya presented a paper entitled Optimization of sol-gel spin-coating method for synthesis of sodium niobate thin films through layer variation for photoelectrochemical water splitting in the National Conference on Study of Nanomaterials and Scientific Developments in 21st Century held on 16-18 March 2023 at Jiwaji University, Gwalior, India.
- Ms. Kumari Ruchi presented a paper entitled Temperature variation of MgFe<sub>2</sub>O<sub>4</sub> thin film for photoelectrochemical water splitting and received 3rd position in the National Conference on Study of Nanomaterials and Scientific Developments in 21st Century held on 16-18 March 2023 at Jiwaji University, Gwalior, India.
- Ms. Kumari Ruchi presented a paper entitled Magnesium ferrite (MgFe<sub>2</sub>O<sub>4</sub>) thin films for photoelectrochemical water splitting: Effects of film thickness and annealing temperature at the 46th International Systems Conference (NSC 2022) held on 27-29 June 2023 organized by Dayalbagh Educational Institute and Systems Society of India.
- Simran Bamola, Isha Goyal, Muskan Agarwal, and Anita Lakhani presented a poster on Evaluation of Ozone Production to Precursor Changes during and after Lockdown in five Indian Cities of Indo-Gangetic Plain in Goldschmidt held on 11 July 2022 at Hawaii (Online).
- Simran Bamola, Isha Goyal, Muskan Agarwal, and Anita Lakhani presented a poster on Assessment of Air Quality in Post-Covid-19 Lockdown Period at Five Urban Sites of the Indo Gangetic Plain in ICCAS held on 25-27 August 2022 at Warangal, India.
- Simran Bamola, Gunjan Goswami, Isha Goyal, Muskan Agarwal, and Anita Lakhani presented poster on Evaluation of ozone production to precursor changes during and after lockdown at two most polluted cities of Indo Gangetic Plain, in the 11<sup>th</sup> International Aerosol Conference (IAC 2022) held on September 4 - 9, 2022 at Athens, Greece (Online).
- Kirti Singh, Neelam Baghel, K. Maharaj Kumari, and Aparna Satsangi presented a poster on Indoor and Outdoor PM<sub>2.5</sub> bound trace metals at a residential site of Agra at the National System Conference from 27 -29 June 2023.

- Kirti Singh, K. Maharaj Kumari, and Aparna Satsangi presented a paper on Morphological Characteristics of Indoor PM<sub>2.5</sub> during cooking and non-cooking hours at a National Conference on Scientific Advancements for Sustainable Environment by Banaras Hindu University from 22 to 23 April 2023.
- Neelam Baghel, Anita Lakhani, Kirti Singh, Aparna Satsangi, and K. Maharaj Kumari presented on Emissions of Volatile Organic Compounds from Rural Kitchens, Health Risk Assessment and their Role in the Formation of secondary atmospheric pollutants. Scientific Advancement for Sustainable Environment, Herbal Medicines and Impact on Health: An Earthday Celebration (SASE-2023) organized by the Department of Dravyaguna Faculty of Ayurveda Institute of Medical Sciences, BHU, Varanasi & National Environmental Science Academy, New Delhi (April 22-23, 2023).
- Simran Bamola attended the Training Program on R&D Equipment on the theme A one Week Training Program on Advanced Research Instruments from 6-12 February 2023 at Dr. B.R. Ambedkar National Institute of Technology, Jalandhar organized by the National Institute of Technology, Warangal.
- Simran Bamola, Gunjan Goswami, Neelam Baghel, Muskan Agarwal, Kirti Singh, Ruchi Singh, Bhanupriya Yadav, Isha Goyal, Gunjan Singh, Saurabh Kumar, Anustha, Virendra Upadhyay, Rajat Sengar, Surat Dewan, Arti Bhatnagar, Jyoti Kushwaha, Runjhun attended DST- STUTI a one-week Training Program on Advanced Analytical Techniques organized at the Department of Chemistry, Dayalbagh Educational Institute, Dayalbagh, Agra from 24-30 September 2022.
- Simran Bamola attended the DST-STUTI Training program organized by the Department of Physics, Faculty of Science from 21-27 November 2022 at Maharaja Sayajirao University of Baroda, Vadodara-390002, Gujarat.
- Simran Bamola, Training program for developing skills in Material Characterization Techniques under DST-STUTI by The Maharaja Sayajirao University of Baroda, Gujarat, 21 -27 Nov, 2022
- Ms. Bhanupriya attended a one-week training program on Characterizations using sophisticated instruments under the STUTI, DST-India organized by the Department of Chemistry, VNIT, Nagpur, and NIT Warangal from 8-14 August 2022.
- Ms. Kumari Ruchi attended a one-week training program on Characterizations using sophisticated instruments under the STUTI, DST-India organized by the Department of Chemistry, VNIT, Nagpur, and NIT Warangal from 8-14 August 2022.
- Gunjan and Sourabh attended the Karyashala High-end workshop on biomass and waste-CCHP applications, NIT Rourkela, Odisha, 2022.
- Saurabh Kumar and Gunjan attended the Training Program on Advanced Analytical Techniques, STUTI, DEI, Dayalbagh, Agra, 2022.
- Jyoti Kushwaha attended the Training Program on Advanced Analytical Techniques, STUTI, DEI, Dayalbagh, Agra, 2022.
- Gunjan Goswami attended a training program on MTT Assay CSIR-IITR, Lucknow, 5-9 December 2022.
- Gunjan Goswami attended the STUTI training program conducted by the University Science Instrumentation Centre (USIC), Delhi University in association with Amity University under auspices of DST India, 14-20 Dec 2022.
- Ms. Bhanupriya attended a one-week training program on Characterizations using sophisticated instruments under the STUTI, DST-India organized by the Department of Chemistry, VNIT, Nagpur and NIT Warangal, 8-14 August 2022.
- Neelam Baghel attended the 'Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI) organized by Amity University hosted at the University Science Instrumentation Center (USIC), Delhi University Sponsored by the Department of Science

and Technology (DST). (14-20, December-2022).

- Virendra Upadhyay, Workshop on Capacity Building in Scientific Writing & Communication Skills'' during Organized by BHU, Varanasi, 25-30 November 2022.
- Virendra Upadhyay attended workshop on Capacity Building in Scientific Writing & Communication Skills organized by BHU, Varanasi from November 25-30, 2022.
- Rajat Sengar attended One-week Training program on Advanced Analytical Techniques, under the scheme Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI), Dayalbagh Agra, September 24-30, 2022. He presented a Poster on Sonochemical Treatment of Activated Charcoal for Sugar Decolourization from Aqueous Solutions, 45<sup>th</sup> (Inter) National Systems Conference (NSC 2022) on Global Sustainability through Lacto-Vegetarian Agroecology Systems Convener NSC 2022 Secretary Systems Society of India, September 26-29, 2022.

### Publications

- Baghel, N., Singh, K., Lakhani, A., Kumari, K. M., & Satsangi, A. (2023). A study of real-time and satellite data of atmospheric pollutants during agricultural crop residue burning at a downwind site in the Indo-Gangetic Plain. *Pollutants*, 3(1), 166-180.
- 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.
- 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*) manuscript accepted.
- Goyal, I., Verma, P. K., Kumari, K. M., & Lakhani, A. (2023). Dynamic changes in the characteristics of fine particles and their oxidative potential in the city of Taj (Agra, India): the untold story of fireworks display. *Air Quality, Atmosphere & Health*, 1-15.
- Goyal, I., Verma, P. K., Singh, V., Kumari, K. M., & Lakhani, A. (2023). Spatio-temporal 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(1), 87-97.
- Kushwaha, J., & Singh, R. (2023). Cellulose Hydrogel and its Derivatives: A Review of Application in Heavy Metal Adsorption. *Inorganic Chemistry Communications*, 110721.
- Kumari, D., Singh, G., & Singh, R. (2023). An overview of E-waste generation and management strategies in metro cities of India. *Global E-Waste Management Strategies and Future Implications*, 315-332.
- Pathan, H. K., Khanum, G., Javed, R., Siddiqui, N., Selvakumari, S., Muthu, S., Ali, A., Arora, H., Afzal, M., Kumar, A., & Javed, S. (2023). Quantum Computational, Spectroscopic Characterization, Hirshfeld Analysis & Molecular docking Studies on *p*-Toluenesulfonic Acid (*p*-TSA) or Tosylic Acid. *Chemical Physics Impact*, 100320.
- Rana, M., Ahmedi, S., Fatima, A., Ahmad, S., Siddiqui, N., Raza, K., Manzoor, N., & Javed, S. (2023). Synthesis, single crystal, TD-DFT, molecular dynamics simulation and DNA binding studies of carbothioamide analog. *Journal of Molecular Structure*, 1287, 135701.
- Pathan, H. K., Fatima, A., Garg, P., Muthu, S., Yadav, A., Siddiqui, N., Ali, M., & Javed, S. (2023). Spectroscopic, Computational, Molecular Docking and Dynamics Simulations Studies of 4-Amino-3-hydroxyNaphthalene-1-Sulfonic Acid (ANSA). *Polycyclic Aromatic Compounds*, 1-20.

- Sharma, S., Fatima, A., Manhas, F. M., Agarwal, N., Singh, M., Muthu, S., Siddiqui, N., & Javed, S. (2023). Experimental spectroscopic, quantum chemical, molecular docking, and molecular dynamic simulation studies on hydantoin (monomer and dimer). *Polycyclic Aromatic Compounds*, 43(7), 6627-6653.
- Rana, M., Fatima, A., Siddiqui, N., Ahmedi, S., Dar, S. H., Manzoor, N., Javed, S., & Rahisuddin. (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.
- 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.
- Fatima, A., Khanum, G., Agrawal, D. D., Srivastava, S. K., Butcher, R. J., Muthu, S., Ahmad, M., Althubeiti, K., Siddiqui, N., & Javed, S. (2023). Synthesis, spectroscopic, crystal structure, dft, hirshfeld surface and molecular docking analysis of hexahydroquinoline derivative (HQ). *Polycyclic Aromatic Compounds*, 43(5), 4242-4270.
- Fatima, A., Singh, M., Abualnaja, K. M., Althubeiti, K., Muthu, S., Siddiqui, N., & Javed, S. (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.
- Sharma, A., Fatima, A., Malla, M. A., Khanum, G., Kumar, A., Singh, M., Abualnaja, K.M., Althubeiti, K., Muthu, S., Siddiqui, N., & Javed, S. (2023). Molecular Docking, Dynamic Simulation and DFT Approach to Noble 2-Hydrazinobenzothiazole Compound. *Polycyclic Aromatic Compounds*, 43(5), 4271-4298.
- Jindal, A., Agarwal, P., Verma, I., Khanum, G., Althubeiti, K., Siddiqui, N., Javed, S., Tyagi, P., & Arora, H. (2023). Copper (II) Monomer Bearing Phenolate-Based Ligand: Theoretical and Experimental Visions. *Polycyclic Aromatic Compounds*, 43(4), 3489-3501.
- Kumar, M., Fatima, A., Singh, M., Verma, I., Khanum, G., Muthu, S., Althubeiti, K., Abualnaja, K.M., Ahmad, M., Siddiqui, N., & Javed, S. (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.
- Kaur, P., Verma, I., Khanum, G., Siddiqui, N., Javed, S., & Arora, H. (2023). Dimeric ZnII complex of carboxylate-appended (2-pyridyl) alkylamine ligand and exploration of experimental, theoretical, molecular docking and electronic excitation studies of ligand. *Journal of Molecular Structure*, 1276, 134715.
- Kumar, M., Jaiswar, G., Afzal, M., Muddassir, M., Alarifi, A., Fatima, A., Siddiqui, N., Ayub, R., Abduh, N.A.Y., Saeed, W.S., & Javed, S. (2023). Quantum Computational, Spectroscopic (FT-IR, FT-Raman, NMR, and UV-Vis) Hirshfeld Surface and Molecular Docking-Dynamics Studies on 5-Hydroxymethyluracil (Monomer and Trimer). *Molecules*, 28(5), 2116.
- Fatima, A., Khanum, G., Srivastava, S. K., Bhattacharya, P., Ali, A., Arora, H., Siddiqui, N., & Javed, S. (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.

- Jindal, A., Kapoor, S., Verma, I., Raju, A., Arora, H., & Tyagi, P. (2023). Synthesis, Characterization and Antibacterial Investigation of Mononuclear Copper (II) Complexes of Amine-phenolate Based Ligands. *Polycyclic Aromatic Compounds*, 1-16.
- Fatima, A., Khanum, G., Verma, I., Butcher, R. J., Siddiqui, N., Srivastava, S. K., & Javed, S. (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.
- Fatima, A., Khanum, G., Sharma, A., Verma, I., Arora, H., Siddiqui, N., & Javed, S. (2023). Experimental Spectroscopic, Computational, Hirshfeld Surface, Molecular Docking Investigations on 1H-Indole-3-Carbaldehyde. *Polycyclic Aromatic Compounds*, 43(2), 1263-1287.
- Agarwal, P., Kumar, A., Verma, I., Khanum, G., Siddiqui, N., Choquesillo-Lazarte, D., Mota, A.J., Javed, S., & Arora, H. (2023). Dinuclear Phenoxo-Bridged Nickel (II) and Copper (II) Complexes of Phenolate-Based Tripodal Ligand: Theoretical and Experimental Insights. *Polycyclic Aromatic Compounds*, 1-20.
- Fatima, A., Arora, H., Bhattacharya, P., Siddiqui, N., Abualnaja, K. M., Garg, P., & Javed, S. (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., & Javed, S. (2023). Synthesis, Crystal Structure, DFT Studies on Tetramethyl-(p-Tolyl)-Hexahydro-1H-Xanthene-1, 8 (2H)-Dione. *Polycyclic Aromatic Compounds*, 1-23.
- Khanum, G., Fatima, A., Rather, R. A., Siddiqui, N., Muthu, S., Srivastava, S. K., & Javed, S. (2022). Synthesis, Spectroscopic, Quantum Chemical, and Molecular Docking Studies of 2-Cyano-N-Cyclopropylacetamide and 2-Cyano-N-(1-Phenylethyl) Acetamide. *Polycyclic Aromatic Compounds*, 1-27.
- Agarwal, N., Fatima, A., Bhattacharya, P., Muthu, S., Arora, H., Siddiqui, N., & Javed, S. (2022). Evaluation of experimental, computational, molecular docking and dynamic simulation of flucytosine. *Journal of Biomolecular Structure and Dynamics*, 1-20.
- Fatima, A., Ali, A., Rajan, R., Verma, I., Muthu, S., Siddiqui, N., Garg, P., & Javed, S. (2022). Experimental Spectroscopic, DFT, Molecular Docking, and Molecular Dynamics Simulation Investigations on m-Phenylenediamine (Monomer and Trimer). *Polycyclic Aromatic Compounds*, 1-33.
- Fatima, A., Khanum, G., Sharma, A., Siddiqui, N., Muthu, S., Butcher, R. J., Srivastava, S.K., & Javed, S. (2022). Synthesis, single crystal X-ray, DFT, Hirshfeld surface and molecular docking studies of 9-(2, 4-dichlorophenyl)-4a-hydroxy-tetramethyl-octahydro-1H-xanthene-1, 8 (2H)-dione. *Journal of Molecular Structure*, 1268, 133613.
- Garima, K., Fatima, A., Pooja, K., Savita, S., Sharma, M., Kumar, M., Muthu, S., Siddiqui, N., & Javed, S. (2022). Quantum Computational, Spectroscopic, Hirshfeld Surface Analysis of 3-Picoline (Monomer and Dimer) by DFT/TD-DFT with Different Solvents, Molecular Docking, and Molecular Dynamic Studies. *Polycyclic Aromatic Compounds*, 1-25.
- Khanum, G., Fatima, A., Siddiqui, N., Butcher, R. J., Alsaiari, N. S., Srivastava, S. K., & Javed, S. (2022). Experimental Spectroscopic (FT-IR, 1H and 13C NMR, ESI-MS, UV) Analysis, Single Crystal X-Ray, Computational, Hirshfeld Analysis, and Molecular Docking of 2-Amino-N-Cyclopropyl-5-Heptylthiophene-3-Carboxamide and Its Derivatives. *Polycyclic Aromatic Compounds*, 1-25.

- Manhas, F. M., Fatima, A., Verma, I., Siddiqui, N., Muthu, S., AlSalem, H. S., Savita, S., Singh, M., & Javed, S. (2022). Quantum computational, spectroscopic (FT-IR, NMR and UV-Vis) profiling, Hirshfeld surface, molecular docking and dynamics simulation studies on pyridine-2, 6-dicarbonyl dichloride. *Journal of Molecular Structure*, 1265, 133374.
- Fatima, A., Khanum, G., Sharma, A., Siddiqui, N., Butcher, R. J., Srivastava, S. K., & Javed, S. (2022). Synthesis, X-Ray Diffraction, DFT and Hirshfeld Surface Studies of 9-(4-Hydroxyphenyl)-Tetramethyl-Hexahydro-1H-Xanthene-1, 8 (2H)-Dione. *Polycyclic Aromatic Compounds*, 1-24.
- Khanum, G., Kumar, A., Singh, M., Fatima, A., Muthu, S., Abualnaja, K. M., Althubeiti, K., Srivastava, G., Siddiqui, N., & Javed, S. (2022). Density functional studies and spectroscopic analysis (FT-IR, FT-Raman, UV-visible, and NMR) with molecular docking approach on an anticancer and antifungal drug 4-hydroxy-3-methoxybenzaldehyde. *Journal of Molecular Structure*, 1264, 133134.
- Rana, M., Fatima, A., Siddiqui, N., Dar, S. H., & Javed, S. (2022). Synthesis, single crystal structure, DNA binding and antioxidant properties of 5-(4-(dimethylamino) phenyl)-3-(thiophen-2-yl)-pyrazoline-1-carbothioamide. *Journal of Molecular Structure*, 1261, 132950.
- Fatima, A., Ali, A., Shabbir, S., Khan, M., Mehkoom, M., Afzal, S. M., Ahmad, M., Althubeiti, K., Muthu, S., Siddiqui, N., Singh, M., & Javed, S. (2022). Synthesis, crystal structure, characterization, Hirshfeld analysis, molecular docking and DFT calculations of 5-Phenylamino-isophthalic acid: A good NLO material. *Journal of Molecular Structure*, 1261, 132791.
- Sharma, A., Khanum, G., Kumar, A., Fatima, A., Singh, M., Abualnaja, K. M., Althubeiti, K., Muthu, S., Siddiqui, N., & Javed, S. (2022). Conformational stability, quantum computational, spectroscopic, molecular docking and molecular dynamic simulation study of 2-hydroxy-1-naphthaldehyde. *Journal of Molecular Structure*, 1259, 132755.
- Pooja, K., Fatima, A., Sharma, A., Garima, K., Savita, S., Kumar, M., Verma, I., Siddiqui, N., & Javed, S. (2022). Experimental, theoretical, hirschfeld surface, electronic excitation and molecular docking studies on fomepizole (4-Methyl-1H-pyrazole). *Journal of Molecular Structure*, 1256, 132549.
- Kumar, M., Singh, M., Jaiswar, G., Lalji, R. S. K., Singh, B. K., Sharma, A., Khanum, G., Fatima, A., Kumar, A., Jaipal, Siddiqui, N., & Javed, S. (2022). Quantum chemical, spectroscopic, hirshfeld surface and molecular docking studies on 2-aminobenzothiazole. *Journal of Molecular Structure*, 1253, 132254.
- Singh, N., Fatima, A., Singh, M., Verma, I., Muthu, S., Siddiqui, N., & Javed, S. (2022). Exploration of experimental, theoretical, Hirshfeld surface, molecular docking and electronic excitation studies of Menadione: A potent anti-cancer agent. *Journal of Molecular Liquids*, 351, 118670.
- Khanum, G., Ali, A., Shabbir, S., Fatima, A., Alsaiari, N., Fatima, Y., Ahmad, M., Siddiqui, N., Javed, S., & Gupta, M. (2022). Vibrational Spectroscopy, Quantum Computational and Molecular Docking Studies on 2-[(1H-benzimidazol-1-yl)-methyl] benzoic acid. *Crystals*, 12(3), 337.
- Khanum, G., Fatima, A., Siddiqui, N., Agarwal, D. D., Butcher, R. J., Srivastava, S. K., & Javed, S. (2022). Synthesis, single crystal, characterization and computational study of 2-amino-N-cyclopropyl-5-ethyl-thiophene-3-carboxamide. *Journal of Molecular Structure*, 1250, 131890.
- Fatima, A., Khanum, G., Sharma, A., Garima, K., Savita, S., Verma, I., Siddiqui, N., & Javed, S. (2022). Computational, spectroscopic, Hirshfeld surface, electronic state and molecular docking studies on phthalic anhydride. *Journal of Molecular Structure*, 1249, 131571.

- Fatima, A., Khanum, G., Savita, S., Pooja, K., Verma, I., Siddiqui, N., & Javed, S. (2022). Quantum computational, spectroscopic, Hirshfeld surface, electronic state and molecular docking studies on sulfanilic acid: An anti-bacterial drug. *Journal of Molecular Liquids*, 346, 117150.
- Baghel, N., Kumari, S., Lakhani, A., Satsangi, A., & Kumari, K. M. (2022). Evaluation of Air Quality at Taj City at Dayalbagh during the Covid-19 Period. *International journal of Environmental Science*, 11(2) 62-73.
- Dewan, S., & Lakhani, A. (2022). Tropospheric ozone and its natural precursors impacted by climatic changes in emission and dynamics. *Frontiers in Environmental Science*, 10, 2499.
- Kumari, D., & Singh, R. (2022). Rice straw structure changes following green pre-treatment with petha wastewater for economically viable bioethanol production. *Scientific Reports*, 12(1), 10443.

### Conference Proceeding

- Saurabh Kumar, Gunjan, Jyoti Kushwaha, Radhika Singh, Yogita Jain, Comparative Study: Green Pretreatment of Rice Straw for Biofuel Production, National Systems Conference, 26-29 September, 2022.

### Book Chapters

- Gunjan, Radhika Singh, Valorization of Byproducts Produced During Extraction and Purification of Biodiesel: A Promising Biofuel. Book name- Biofuel production (Wiley), 2023.
- Dolly Kushwaha, Gunjan, Radhika Singh, Innovative and Best Available Practices for E-Waste management with case studies. Book name- Global E-waste management strategies and future implications (Elsevier), 2023.
- Muskan Agarwal, Simran Bamola, Isha Goyal and Anita Lakhani, Inhalable Ambient Particulate Matter: Sources, Composition, Effects and Management. Book name- Advances in Environmental Research, Nova Publishers, 2022.
- Dinesh Sah, Puneet Kumar Verma, K. M. Kumari and Anita Lakhani, Chemical Fractionation and Health Risks of Heavy Metals in PM<sub>2.5</sub>. Book name- Advances in health and Diseases, Nova Medicine and Health, 2022.
- Sachin Saxena, N Siddiqui, Manju Srivastava, Nanocomposites: A Boon To Material Sciences. Book name- Nanocomposite Materials for Sensor, Bentham Science publishers, 2022.
- Gunjan, Radhika Singh, & Subhalaxmi Pradhan, Valorization of Byproducts Produced During Extraction and Purification of Biodiesel: A Promising Biofuel. Book name- Biofuel Extraction Techniques 2023.

## 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 Sc.

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.

#### **Areas of thrust:**

1. Dynamical Systems
2. Linear Algebra
3. Topology
4. Optimization
5. Software Engineering/Evolutionary Testing
6. Numerical Analysis

#### **Programs/Courses offered:**

1. B.Sc. Mathematics Honours
2. M.Sc. Mathematics
3. M.Sc. Mathematics with Specialization in Computer Applications
4. Post Graduate Diploma in Big Data, Logistics and Operations Research (PGDBDLOR) department

5. Ph.D.

### Facilities in the Department

#### 1. Computing Facility

- 22 Desktop Computers: DELL Optiplex 780n, HP Pro i3/ i5 based computers
- MATLAB 7.0 10 user license with symbolic math and statistics toolbox Dell Precision T5500 Workstation
- Dell Power Edge T410 Server
- Systat 9.0

#### 2. Departmental Library

- Books and UGC INFLIBNET e-journal

### Projects Sanctioned

Linear Algebra Virtual Lab, MHRD

### Ongoing Research Projects

Linear Algebra Virtual Lab, MHRD

### Students Achievements/ Awards

Ms Deepanshi awarded Young Scientist Award at the International Conference on Mathematical Sciences and Applications, organized by the Department of Mathematics, Dr. Bhimrao Ambedkar University, Agra, 24th-26th March, 2023 on the paper entitled Minkowski space and its first singular homology group written jointly with Gunjan Agrawal.

### Workshops/Conferences/Seminars/Webinars Attended

- Atul Kumar presented paper entitled Mathematical Model of Dynamical System for piecewise derivative in International Conference on Nonlinear Analysis and Applications from 22<sup>nd</sup>-23<sup>rd</sup> November, 2022, organized by Assam Don Bosco University, India.
- Atul Kumar presented paper entitled Dynamical System using piecewise derivative in 2<sup>nd</sup> International Conference on Nonlinear Applied Analysis & Optimization and NMD from 19<sup>th</sup>-22<sup>nd</sup> December, 2022, organized by Department of Mathematical Sciences, IIT (BHU).
- Atul Kumar presented paper entitled Lotka volterra predator prey model using piecewise derivative through virtual mode in International Conference on Fractional Calculus: Theory, Applications & Numerics from 27-29 January, 2023, organized by National Institute of Technology, Puducherry.
- Atul Kumar presented paper Dynamical System using piecewise derivative in International Conference on Application of Statistics from 02-03 February, 2023, organized by Department of Statistics, Pachhunga University College Campus, Mizoram University, Aizawl.
- Atul Kumar participated in online lecture series on Nonlinear Dynamics and Applications from 13-16 Feb, 2023, organized by IIT, Indore.
- Deepanshi presented paper entitled Minkowski space and its first singular homology group written jointly with Gunjan Agrawal in International Conference on Mathematical Sciences and Applications from 24-6 March, 2023, organized by the Department of Mathematics, Dr. Bhimrao Ambedkar University, Agra.
- Mohit Katara presented paper entitled Posynomial Programming Problem with Max-Product Fuzzy Relational Inequalities written jointly with Antika Thapar in International Conference on

Mathematical Sciences and Applications from 24-26 March, 2023, organized by the Department of Mathematics, Dr. Bhimrao Ambedkar University, Agra.

- Tanuj Kumar Rawat presented paper entitled Peristaltic transport of a Carreau's fluid through an inclined tapered duct in a porous environment: application to pathological bile flow written jointly with S. P. Singh in International Conference on Mathematical Sciences and Applications from 24-26 March, 2023, organized by the Department of Mathematics, Dr. Bhimrao Ambedkar University, Agra.
- Rani Kumari presented paper entitled NSGAI for Travelling Thief Problem with Dropping rate written jointly with Kamal Srivastava in 2023 7<sup>th</sup> International conference on Intelligent computing and control system, from 17-19 May, 2023, organized by Vaigai college of Engineering, Madurai.
- Aditi Khandelwal presented a paper entitled A Reduced Variable Neighbourhood Search Algorithm for Grid Bandwidth Minimization Problem written jointly with Gursaran and Kamal Srivastava, from 17-19 May, 2023, organized by Vaigai college of Engineering, Madurai.

### Placements

- Prachi Chawla got placed as Probationary Officer in State Bank of India in 2022-23.
- Pradeep Kumar was appointed as Assistant Professor in Lovely Professional University, Jalandhar.
- Shivangi Singh got appointment as Guest Faculty in Agra College.
- Priya Sharma cleared Bihar Public Service Examination for the post of Assistant Professor.
- Sushma Sagar cleared Union Public Service Commission.

### Publications

- Lawaniya, P.; Sinha S.; Kumar R. (2023). Sustainability of a system of two competing prey and a predator in polluted environment *Proyecciones Journal of Mathematics*, 42 (7), 489-520.
- Agarwal, H.; Sharma, S. (2023). More for Less Paradox in Time Minimization Transportation Problem with Mixed Constraints. *American Journal of Mathematical and Management Sciences*, 42(1), 69-85.
- Kumar A. (2023). Rossler's system using piecewise derivative. *Results in Physics*, 50, 106555.
- Dahiya, S.; Singh, A.; Singh, S. P. (2023). Fourth order modified cubic B-spline collocation method for the numerical simulation of the Gardner Equation, accepted in *Computational Mathematics and Mathematical Physics*.
- Kardam, Y. S.; Srivastava, K.; Martí R. (2023). General variable neighborhood search for the minimum stretch spanning tree problem. *Optimization Letters* 2023, 1-27.
- Tiwari, V. L.; Thapar, A.; Bansal, R. (2023). A Genetic Algorithm for Solving Nonlinear Optimization Problem with Max-Archimedean Bipolar Fuzzy Relation Equations, *International Journal of Uncertainty, Fuzziness and Knowledge Based Systems*, 31(2), 303-326.
- Tiwari, V. L.; Thapar, A. (2023). Solving Max-Archimedean t-norm interval-values fuzzy relation equations, *Fuzzy Sets and Systems*, 440, 62-76.
- Kardam, Y. S.; Srivastava, K.; Martí R. Scatter search for the minimum leaf spanning tree problem. *Computers & Operations Research* 2022, 145.
- Rawat, T. K.; Kumari, S.; Singh, S.P. (2022). Modelling of the peristaltic lithogenic bileflow in the calculus duct under the influence of heat transfer with slip boundary conditions, *Journal of Scientific Research*, BanglaJOL 14(2).

## Department of Physics and Computer Science

Description of the department including inception of the department, faculty strength, areas of thrust, courses offered and salient features of the department.

Thrust Areas: 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.

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

- Computing facility in the Quantum Computing Laboratory.
- Various Drones, sensors and devices for IOT Applications.
- Installation of Femtosecond Transient Absorption Spectrometer in the Photonics Lab.

### **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.

#### **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.

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

1. Magic State Distillation with Qudits, Dr. Shiroman Prakash, DST-SERB Grant, Rs. 22,52,710.00.
2. Dr. Aman Prasad, Dr. Raju Roychowdhury, Dr. Ravinder Bharadwaj, Dr. Hardik Chaddha was awarded with DEI Seed Grant to, Rs. 2.00 lakhs.

### **Ongoing Research Projects**

1. Computational Modelling of Optogenetic Control of Neural Circuits with Light, Prof. Sukhdev Roy, DST-SERB Grant, 2022-2025, Rs. 42,28,119.00.

2. *Computational Modelling of Optogenetic Control of Heart with Light*, Prof. Sukhdev Roy, DST-SERB Grant, 2022-2025, Rs. 6.60 lakhs.
3. *MOE NMEICT Virtual Lab. – III, Waves, Optics and Quantum Mechanics*, Prof. Sukhdev Roy, Rs. 20 lakhs.
4. *MOE NMEICT Virtual Lab. – III, IOT*, Dr. Sanjay Saini, Rs. 20 lakhs.
5. *MOE NMEICT Virtual Lab. – III, Scientific Computing*, Dr. Sanjay Saini, Rs. 20 lakhs.

### **Patents Applied**

1. Title: *IOT-Based Smart Drip Irrigation System*  
 Application No. : 202211058572  
 Date of Filing : 13-10-2022  
 Inventors : Amarjeet Singh Chauhan, Mohit Yadav, Aditya Vardhan, Sanjay Saini and Sukhdev Roy
2. Title: *New Protein Constructs for Low-Power Sustained High-Fidelity Optogenetic Excitation of Neural Spiking*  
 Application No. : 202211077093  
 Date of Filing : 30-12-2022  
 Inventors : Himanshu Bansal, Gur Pyari and Sukhdev Roy

### **Faculty/Staff Achievements/ Awards/ Faculty Development Programme**

- Professor Sukhdev Roy was elected a Fellow of SPIE-The International Society for Optics and Photonics, USA.
- Professor Sukhdev Roy chaired the Plenary Session at the 45<sup>th</sup> (Inter) National Systems Conference (NSC 2022) on Global Sustainability through Lacto-Vegetarian Agroecology Systems, DEI, Agra, Sept. 26-30, 2022.
- Professor Sukhdev Roy delivered a Plenary Talk titled, *Low-Power Deep Optogenetic Control of the Brain and Heart with Light*, International Forum on Lasers, Optics and Photonics, (Virtual Conf.) March 13-14, 2023.

### **Students Achievements/ Awards**

- Dr. Himanshu Bansal was awarded the ISCA Young Scientist Award in Physics, at the Indian Science Congress, Jan. 3-7, 2023.
- Ms. Anam Saifi was awarded the Best Paper Award, 45<sup>th</sup> (Inter) National Systems Conference for the paper, *Femtosecond All-Optical Logic Gates with MoTe<sub>2</sub> Nanocomposite Thin Films*, Sept. 26-29, 2022.

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

- *Controlling the Brain and Heart with Light*, Conf on Optics, Photonics & Quantum Optics, IIT Roorkee, Nov. 10-13, 2022.
- *Photonics Driven Convergence of Technologies: Nano-Bio-Info-Quantum-Cognitive*, 92nd Annual Session of the National Academy of Sciences, and Symposium on Science and Technology – A Vehicle for Social Transformation, Allahabad, Dec. 4-5, 2022.

### **Placements**

The students of the Department got placed in various firms and reputed companies like Ganpati Wellness Pvt. Ltd, Diamond Gems and Stone, Sun Novation Ventures LLP, Agra, Rulesiq India Pvt Ltd, Agra, Rulesiq India Pvt Ltd, Agra, Prime Valley, Delhi, Rulesiq India Pvt Ltd, Agra, Watsoo Express Pvt. Ltd., Mobilite, Icic Bank, Jetking, Agra, Linux World Pvt. Ltd, Gurugram, Lodhi Pvt.Ltd, Agra, Bhupendra Medical Agency, Dholpur, Crucial Bits Pvt Ltd, Bangalore, Genpact Pvt Ltd, Noida, Pie Infocom, Lucknow, Butterfly Edufield Pvt Ltd, Hyderabad.

## Publications

- 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*, 1-25.
- Bansal, H., Pyari, G., & Roy, S. (2023). Optogenetic Generation of Neural Firing Patterns with Temporal Shaping of Light Pulses. In *Photonics* (Vol. 10, No. 5, p. 571). MDPI.
- 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.
- Sônego, M., & Roychowdhury, R. (2023). A note on control of one-dimensional heterogeneous reaction-diffusion equations. *Evolution Equations and Control Theory*, 12(2), 415-422.
- Gupta, P., Jangid, A., & 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), 3507-3520.
- Bansal, H., Pyari, G., & Roy, S. (2022). Co-expressing fast channelrhodopsin with step-function opsin overcomes spike failure due to photocurrent desensitization in optogenetics: A theoretical study. *Journal of Neural Engineering*, 19(2), 026032.
- Bansal, H., & Roy, S. (2023). Recent Advances in Optogenetic Retinal Prostheses. *Medical and Surgical Retina-Recent Innovation, New Perspective, and Applications*.
- Pyari, G., Bansal, H., & Roy, S. (2022). Ultra-low power deep sustained optogenetic excitation of human ventricular cardiomyocytes with red-shifted opsins: a computational study. *The Journal of Physiology*, 600(21), 4653-4676.
- Saifi, Z., Singh, U., Kumar, M., Daya, K. S., & Alocilja, E. C. (2022). Study of Inter-species Social Interactions among Bacterial Cells using Computer Vision and Zeta Potential Analysis. *IEEE Transactions on NanoBioscience*.
- Bhatnagar, S. (2022). Neutrino Signals Throw Light on Dark Matter Searches. In *Information and Communication Technology for Competitive Strategies (ICTCS 2021) Intelligent Strategies for ICT* (pp. 389-400). Singapore: Springer Nature Singapore.
- Laxmikant, Vasantha Lakshmi, C., & Patvardhan, C. (2022). QKPICA: A Socio-Inspired Algorithm for Solution of Large-Scale Quadratic Knapsack Problems. In *International Conference on Machine Intelligence and Signal Processing* (pp. 695-708). Singapore: Springer Nature Singapore.
- Kapoor, S., & Prakash, S. (2023). Bifundamental multiscalar fixed points in  $d=3-\epsilon$ . *Physical Review D*, 108(2), 026002.
- Prakash, S. (2023). Spectrum of a Gross-Neveu Yukawa model with flavor disorder in three dimensions. *Physical Review D*, 107(6), 066025.
- Sharma, L., Chellapilla, V. L., & Chellapilla, P. (2023). Socio-inspired evolutionary algorithms: a unified framework and survey. *Soft Computing*, 1-30.
- 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.
- 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.
- Mishra, A., & Singh, P. (2023). A Hybrid Approach to Ontology Evaluation. *Mathematics and Computer Science Volume 2*, 187-204.

- 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.
- 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.
- Mehta, U., Minwalla, S., Patel, C., Prakash, S., & Sharma, K. (2022). Crossing Symmetry in Matter Chern-Simons Theories at finite  $N$  and  $k$ . *arXiv preprint arXiv:2210.07272*.
- Himanshu Bansal, Gur Pyari and Sukhdev Roy (2022). Low-power and High-Frequency Optogenetic Retinal Prostheses with ChRmine, *Paritantra Journal of Systems Science and Engineering*, 26 (1), 27-32.
- Pratima Gupta, Ashok Jangid and Ranjit Kumar (2023). A study on optical characteristics of aerosols and quantification of black carbon at a site over the semi-arid region of the Indo-Gangetic basin, *Geological Journal*.
- Rajnikant Verma, Ranjit Kumar and Ashok Jangid (2023). Modulation of chromium induced toxicity in eggplant with exogenous application of Sodium nitroprusside (SNP): Growth and Antioxidant status. *Indian Botanical Sciences*, Udaipur.
- Sonali Bhatnagar (2023). DEASA: Skill based Learning systems, *Aazadi Ka Amrit Mahotsav: Community Science Achievements, Opportunities and Challenges*. Bluerose Publishers Pvt. Ltd. *Aazadi Ka Amrit Mahotsav: Community Science Achievements, Opportunities and Challenges*. Bluerose Publishers Pvt. Ltd.
- Sonali Bhatnagar (2023). Energy of hard, soft and nucleonic components of extensive air shower using DEASA array. *Computer Applications: An international Journal*. 10 (1/2), 1-7.
- Sonali Bhatnagar (2022). Geant4 based applications to space physics, nuclear waste-based muon tomography and heavy ion therapy. *Review, Academia Letters*
- Amarjeet Singh Chauhan, Mohit Yadav, Aditya Vardhan, Sanjay Saini (2022). IoT based Smart Electricity Meter with Energy Prediction and Consumption. *Journal of Emerging Technologies and Innovative Research (JETIR)*, 9 (1), 554-561.
- Aditya Vardhan, Mohit Yadav, Amarjeet Singh Chauhan, Sanjay Saini (2022). IoT based Smart Residence System. *International Journal of Creative Research Thoughts (IJCRT)*, 10 (1), 694-702.
- Amarjeet Singh Chauhan, Sanjay Saini (2022). Resource Allocation in IoT Environment using Swarm Optimization: A Review, *Journal of Emerging Technologies and Innovative Research (JETIR)*, 9 (1), 564-573.

### Projects Sanctioned

A Core Research Grant (under Exponential Technologies) from the Department of Science and Technology- Science and Engineering Research Board (DST-SERB) has been awarded to Dr. Shiroman Prakash and Dr. Dayal Pyari Srivastava of the Department of Physics and Computer Science. The project is entitled Magic State Distillation with Qudits, and aims at studying mathematical approaches to fault-tolerant quantum computation using qudits of odd prime dimension. The project is inspired by the renowned paper from  $n$ -qubit Multi-Particle Quantum Teleportation Modelling to  $n$ -qudit Contextuality Based Quantum Teleportation and Beyond by Dayal Pyari Srivastava, Vishal Sahni & Prem Saran Satsangi published in the *International Journal of General Systems*, Volume 46, 2017 - Issue 4.

## 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 interspersions 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 and 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 the Royal Society of Entomology; INSA; JURY Members of DST-INSPIRE AWARDS; Members of the Selection Boards of Professors of other institutions; Members 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 government agencies such as UP Forest Department, Jal Nigam, and 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, a 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 Additional Work Experience and advanced Certificate Courses 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 Behaviour and Cognitive Lab

These labs are supported additionally By the Departmental Sophisticated Instrumentation Lab and Computer Network Lab.

### **Staff Achievements/Recognitions**

- Prof. Sant Prakash is on a Member of the Research Advisory Committee of the School of Studies of Zoology, Jiwaji University.
- Prof. Sant Prakash is a member of the Advisory Body of Research in Neuroscience at the DST Centre of Neuroscience. Gwalior.
- Prof. Sant Prakash is Co-Chairman, Technical Committee, ICMR – NITML Centre Agra. He is
- Prof. Sant Prakash is a Technical Expert in the Air Safety Committee, Air Force Agra.
- Prof. Sant Prakash is a Member Expert in the UP Environment Committee, Lucknow.
- Prof. Sant Prakash is a Member Animal Ethics Committee, ICMR Centre, Agra
- Dr. Arun Pratap Sikarwar was invited as a Resource person to deliver an interactive workshop on Neuroscience of Human Memory & its Role in Teaching & Learning to the academic staff of Air Force School (AFS), Indian Air Force Station, Agra, on 30 July 2022.
- Dr. Reshma Bhatnagar was invited as a Keynote speaker at FS University, Uttar Pradesh in a one-day international seminar on Transition from Adolescence to Adulthood: Mental Health and Emotional Well-Being on 16 December 2022.
- Dr. Arun Pratap Sikarwar was invited as a Resource Person to a workshop on Biotechnological Tools for Human Welfare-2022 conducted in collaboration with the Indian Institute of Technology (IIT), Gandhinagar at the Bareilly College, Bareilly, on 13 November 2022.
- Dr. Lalit Mohan Chaired a Session in the International Conference on Vision 2047: Sustainable Development Towards Atma Nirbhar Bharat (VSANB-2022). December 23 - 24 2022 at Chandigarh.
- Dr. Lalit Mohan delivered an Invited Talk on the Larvicidal potential of Citrullus colocynthis seed oil-loaded gum acacia nanoparticles against malaria vector, Anopheles culicifacies in the International Conference on Vision 2047: Sustainable Development Towards Atma Nirbhar Bharat (VSANB-2022). December 23 – 24, 2022 at Chandigarh.
- Dr. Lalit Mohan delivered an Invited Talk on Botanical Pesticides: Properties, Limitations and Mitigation Measures at the 1<sup>st</sup> Global Conference on Global Approaches in Agriculture and Allied Sciences for Sustainability, Food Security and Livelihood. January 21 - 23, 2023.
- Dr. Lalit Mohan delivered an Invited Talk on Phytopesticides and their role in the management of mosquito vectors at the International Conference on Multidisciplinary Approaches in Engineering, Science, Agriculture & Social Studies (MAESASS-2023). 3 - 4 June, 2023.
- Dr. Lalit Mohan Chaired a Session at the 1<sup>st</sup> Global Conference on Global Approaches in Agriculture and Allied Sciences for Sustainability, Food Security and Livelihood. January 21 - 23, 2023.
- Dr. Lalit Mohan Chaired a Session in International Conference on Multidisciplinary Approaches in International Conference on Multidisciplinary Approaches in Engineering, Science, and Agriculture & Social Studies (MAESASS-2023). 3<sup>rd</sup> - 4<sup>th</sup> June, 2023.
- Prof. Shabd Preet chaired a session at 46<sup>th</sup> National Systems Conference (NSC 2023) on Evolution of Homo sapiens to Homo spritualis for better worldliness organized on 27-29 June 2023 at DEI jointly with the 5<sup>th</sup> International Conference on Dayalbagh Science of Consciousness.

- Dr. Reshma Bhatnagar was awarded a two-week SWAYAM- MOOC Refresher Course Certification in Advanced Research Methodology conducted by Ramanujan College, Delhi University conducted in March 2023.
- Dr. Reshma Bhatnagar cleared the examination to qualify as Psychology Counsellor, conducted by the National Health Care Academy (N.H.C.A.), Singapore for the following international certifications with lifetime validity for practice in 50 countries:
- Dr. Reshma Bhatnagar completed coursework and training for the following certifications accredited by the American Board of Neuro-Linguistic Programming (A.B.N.L.P.), U.S.A. and International Association of Psychologists, Counselors and Coaches (I.A.P.C.C.), U.S.A.
- Dr. Priyanka Gautam was awarded the Vocational Excellence award on 3.12.2022 by the Rotary Club of Mumbai's west coast.
- Dr. Priyanka Gautam gave an invited talk during the National conference NCDBCS-2023 held at Pt. Gangadhar Shastri Bhawan, Agra College Agra, on 21 March, 2023

### **Students Awards and Achievements**

- Mahima Chaudhary was awarded the Best Oral Presentation Award for the paper, Assessment of Okra Crops for Pest Infestation and Crop Loss. 1<sup>st</sup> International Conference on Global Approaches in Agriculture and Allied Sciences for Sustainability, Food Security and Livelihood (GAASFSL-2023) in January 2023 held in Agra.
- Krishna Rana, was awarded Best Oral Presentation Award on the paper entitled Hesperidin Mediated Lifespan Extension in *Caenorhabditis elegans* at the International Conference on Multidisciplinary Approaches in Engineering, Science, Agriculture & Social Studies June, 2023, Agra.
- Krishna Rana was awarded the Young Researcher Award in the field of Neurotoxicology and Neuroprotective Phyto compounds during the World Environment Summit from 15<sup>th</sup> -16<sup>th</sup> Oct 2022, organized by the Environmental and Social Development Association (ESDA) Delhi.

### **Students qualifying National-level tests (5)**

- Ayyub Rehman qualified Gate – 2022 AIR 14
- Pranay Bhatnagar qualified GATE-2022 - AIR 26
- Pranay Bhatnagar qualified CSIR-NET AIR- 64
- Shivani Gautam qualified NET-LS, June 2023
- Vaishali Chaudhary qualified GATE-2023 AIR 18

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

- The Department of Zoology organised a National Seminar in collaboration with the Indian Immunology Society (IIS) on the celebration of International Day of Immunology with the theme of Immunology Talks to Human Health on May 6, 2023, at the International Seminar Hall Complex, DEI. The seminar invited speakers such as Dr. Kaustav Nayak from ICGEB, New Delhi, Dr Madhu Chhanda Mohanty from ICMR-National Institute of Virology, Mumbai Unit, and Dr. Amla Chopra from DEI. More than 200 registered participants attended this seminar in both offline and online modes with healthy interaction over immunology information with experts. Dr. Arun Pratap Sikarwar was the Organising Secretary.

### **Staff Achievements**

- Prof. Sant Prakash is the Chairman of the Session on Neurogenetics at the National Conference of Indian Neuroscience Association, at Gwalior on 4 -6 October 2023.
- Dr. Lalit Mohan was a Member of Publication Committee - 46<sup>th</sup> (inter) national systems conference (NSC 2023) Evolution of Homo Sapiens to Homo Spiritualis for Better Worldliness. 27–29 June 2023 and Co-Organizing Secretary - International Conference on Multidisciplinary Approaches in Engineering, Science, Agriculture & Social Studies (MAESASS-2023). 3<sup>rd</sup> - 4<sup>th</sup> June, 2023.
- Dr. Reshma Bhatnagar was invited as the Keynote Speaker in a one-day International Seminar on Transition from Adolescence to Adulthood: Mental Health and Emotional Well Being, held at the FS University, Shikohabad, Uttar Pradesh on 16 December 2022.
- Dr. Reshma Bhatnagar was conferred as the Master of Ceremony in the National Seminar to commemorate the International Day of Immunology- Immunology talks to Public Health organized jointly by the Dept. of Zoology, D.E.I., Agra and Indian Immunology Society (IIS) on May 06, 2023.
- Priyanka Gautam presented a paper at the 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 on 3-4 June 2023.
- Priyanka Gautam presented a paper at the International Conference on World Environment Summit 2022 on the Impact of pesticides on physiological behaviour and nigrostriatal nerve pathways in *Caenorhabditis elegans* leading to Parkinson's disease Organized by Vallabhbhai Patel Chest Institute, University of Delhi held on 15 - 16 October 2022.

### **Seminar/Symposia/Conference/Webinar Attended**

- Uzma Adil and Alka Prakash presented a paper entitled Bioremediation of Plastics through Rumen Microbes in the Fourth Winter Session on Dayalbagh Science of Consciousness 1 Jan 2023.
- Ruchi Singh and Sant Prakash presented a paper entitled Challenges of Semi-arid Habitat and the surrounding desert environment for conservation of Spiders at World Environment Summit, Delhi in October 2022.
- Anurag Yadav attended an Advanced Course in Remote Sensing Techniques for geological applications conducted by ISRO and IIRS, Dehradun in March 2023.
- Ayyub Rehman and Alka Prakash gave a presentation on Upcycling of keratinous waste for hydrogel preparation. DEI Research Fair August 2022.
- Radha Yadav presented a paper entitled Environmentally benign nanoparticles from ubiquitous weeds for controlling Japanese encephalitis vector at the International Conference on Changing Perspectives in Environment, Management, Humanities, Science and Technology, Mysuru, Karnataka, India, July 2022.
- Radha Yadav attended a one-week Hands-on Workshop on Human/Cancer cell culture techniques and MTT assay, at the International Centre for Stem Cells, Cancer and Biotechnology (ICSCCB), Delhi in August 2022.
- Radha Yadav presented a Poster on Sustainable nanotechnology for mosquito vector management DEI on 24 August 2022.

- Archi Gupta presented a Poster on Deploying experimentally validated computational aided models of vesicle membranes as advanced therapeutic drug delivery carrier in ABRICON-22 by the Indian Consortium for Research & Innovation in Biology (ICRIB) held in online mode from December 3-5 2022.
- Shweta Gupta, Shivani Sharma, Neha Loach, Mahima Chaudhary, Lalit Mohan presented the paper entitled Acaricidal Bioassay of Pomegranate fruit peels extract against common cattle tick, *Rhipicephalus microplus* Potential of Essential Oils Isolated from the Peels of Certain Citrus Plants against Mosquito Larvae Larvicidal bioassay of phyto-genic microemulsions for the management of mosquito vectors, at the 15<sup>th</sup> International Conference of Medical Arthropodology on Control of Malaria and Other Vector-borne and Zoonotic Diseases: Challenges and Opportunities in Implementation Research from 12-14 December, 2022 held at Osmania University, Hyderabad.
- Madhuri presented a Poster on Herbal nano formulations as an emerging tool for ectoparasite management at the Research Fair, DEI held on 29 January 2023.
- Radha Yadav presented a poster on Green nanotechnology for dengue vector management at the Research Fair, DEI held on 29 January 2023.
- Madhuri made an oral presentation on *in vitro* pediculicidal activity of nano formulation of Citrus limon at the 4<sup>th</sup> International Conference of Environmental, agricultural, chemical and biological science in support of United Nations SDGs organized in hybrid mode by VOICE, India, Department of Biotechnology, AIITE, New Delhi, May 13-14, 2023.
- Krishna Rana presented a poster paper entitled Estimation of median lethal concentration (IC<sub>50</sub>) value and its confidence interval for the effect of Carbamate pesticide (Methiocarb) on *Caenorhabditis elegans* at the 45<sup>th</sup> (Inter) National Systems Conference (NSC 2022) from 26–29 September 2022, organized by Dayalbagh Educational Institute and Systems Society of India.
- Krishna Rana presented a paper entitled Molecular Docking Simulation of Flavonoids for Preventing Alzheimer's Disease using Citrus sinensis Peels at the World Environment Summit from 15-16 October 2022, organized by the Environmental and Social Development Association (ESDA) Delhi.
- Krishna Rana presented a poster entitled Estimation of median lethal concentration (IC<sub>50</sub>) value and its confidence interval for the effect of Carbamate pesticide (Prepoxur) on *Caenorhabditis elegans* at a Virtual Conference Applied Biology Research & Innovation Conference (ABRICON-2022) from 3 – 5 December 2022, organized by Indian Consortium for Research & Innovation Biology.
- Krishna Rana presented a paper entitled A Computational Approach to Identifying Oxidative Stress Marker and Amyloid Beta: A Therapeutic for Alzheimer's in International Conference on Recent Trends in Biomolecules and Therapeutics (RTBT-2023) from 23 – 24 March 2023, Panjab University, Chandigarh
- Pooja Chaudhary presented a paper in International Conference on recent developments in engineering, sciences, humanities, and management (ESHM-2023) (18 March 2023).
- Dr. Reshma Bhatnagar attended the International Conference- Global Approaches In Agriculture and Allied Sciences For Sustainability, Food Security and Livelihood (GAASFSL-2023) held at Agra College, Agra, 21-23 January 2023.

- Dr. Reshma Bhatnagar attended the International Conference on Multidisciplinary Approaches in Engineering, Science, Agriculture and Social Studies (MAESASS-2023), held at Dr. Bhimrao Ambedkar University, Agra, 3-4 June, 2023.
- Deep Singh and Reshma Bhatnagar presented a paper entitled Macaque-Human Conflict in Urban Areas of Semi-Arid Agro-Climatic Zone at the International Conference on Global Approaches in Agriculture and Allied Sciences for Sustainability, Food Security and Livelihood, held in Agra 21-23 January 2023.
- Hemlata and Reshma Bhatnagar presented a paper entitled A Review of the Ecological Role of *Acridotheres ginginianus* (Bank Myna), in the International Conference on Global Approaches In Agriculture and Allied Sciences For Sustainability, Food Security and Livelihood (GAASFSL-2023), Agra College, Agra, 21 - 23 January 2023.
- Hemlata and Reshma Bhatnagar presented a paper entitled Role of *Acridotheres ginginianus* (Bank Myna) in Smart Cities' Ecosystems in the World Environment Summit, 2022 at Vallabhbhai Patel Chest Institute, University of Delhi, (North Campus) Delhi on 16 October 2022.
- Ankita Chauhan and Reshma Bhatnagar presented a paper entitled Ethology of the Jungle Babbler (*Turdoides striata*) and the Large Grey Babbler (*Argya malcolmi*): A Comprehensive Review in the World Environment Summit, 2022 held at Vallabhbhai Patel Chest Institute, University of Delhi, (North Campus), 15-16 October, 2022.

### Publications

- Ritu Yadav and Alka Prakash (2023). Physico-Chemical Analysis of Groundwater, RO Water, RO Waste Water and Conservation Strategies, *International Research Journal of Engineering and Technology*. 10(1), 33-37.
- Krishna Rana and Priyanka Gautam (2023). Molecular docking and molecular dynamics simulation of bioflavonoids against super oxidize dismutase and beta-amyloid protein *International Journal of Research and Analytical Reviews (IJRAR)*, 10(2), 410-424.
- Yadav, R., Singh, A., & Preet, S. (2023). Phyto-synthesized silver nanoparticles from ubiquitous weeds *Sida acuta* and *Artemisia absinthium* for controlling japanese encephalitis vector. *International Journal of Tropical Insect Science*, 1-6.
- Anuradha Kapoor and Shabad Preet (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.
- Deepali Agarwal and Reshma Bhatnagar (2023). Vocalization Repertoire of the Five Striped Palm Squirrel, *Funambulus pennantii penantii*: An Ethological Study, *Advances in Bioresearch*, 14 [5/6].
- Hemlata and Reshma Bhatnagar (2023). A Review of Behavior Research on the Genus *Acridotheres*, *Advances in Bioresearch*, 14 [5/6].
- Radha Yadav and Shabd Preet (2023). Comparative assessment of green and chemically synthesized glutathione capped silver nanoparticles for antioxidant, mosquito larvicidal and eco-toxicological activities. *Scientific Reports*, 13, 8152.
- Ankita Chauhan and Reshma Bhatnagar (2023). Cognitive Ethology of Genus *Argya* in the Indian Sub-continent: A Comprehensive Review, *Advances in Bioresearch*, 14 [5/6].

- Nikita Sharma and Alka Prakash (2022). Isolation and rapid detection of Cronobacter in milk and milk products from the unorganized sectors of Agra region. *International Journal of Creative Research Thoughts (IJCRT)*, 10 (11), 709-718.
- Vaishali Chaudhary and Alka Prakash (2022). Utilization of probiotics for water treatment and their immobilization on coal. *International Journal of Research and Analytical Reviews (IJRAR)*, 9(4).
- Ritu Yadav and Alka Prakash (2022). Behavioral pattern of growth and survival of Cronobacter sakazakii in different media during heat shock treatment. *International Journal of Research and Analytical Reviews*, 9(4),120-128.
- Anjali and Sant Prakash (2022). DNA Barcoding of some predominant spiders of the semi-arid habitat of Agra. *J. Exp. Zool. India*, 25 (2), 1581-1585.
- Amla Chopra and Archi Gupta (2022). Skin as an immune organ and the site of biomimetic, non-invasive vaccination. *Medicine in Novel Technology and Devices*, 16, 100196.
- Rakesh Babu, Ravi Dutt Sharma, Shailendra Patni, Lalit Mohan, Manish Maheshwari, Ashok K. Kakodia, Raaz K. Maheshwari (2022). A Comprehensive Abridged Description on Phytopharmacological Constituents and Intrinsic worth of Dutchman's Pipe (*Aristolochia tagala* L.). *Journal of Emerging Technologies and Innovative Research*. 9 (8): 382-400.
- Vijay Kishore, Shweta Gupta, C.N. Srivastava, Lalit Mohan (2022). Acaricidal potential and phytochemical evaluation of *Spilanthes acmella* flower for the control of Asian blue tick, *Rhipicephalus (Boophilus) microplus*. *Journal of Entomological Research*. 46 (Suppl.), 1124-1135.
- Prejwlitta Maurya, C.N. Srivastava, Lalit Mohan (2022). Light and Temperature induced joint action of imidacloprid and *Ocimum basilicum* against malaria vector, *Anopheles stephensi*. *Journal of Entomological Research*. 46 (Suppl.), 1136-1143.
- Upma Singh, Monika Chamoli, KP Singh, Lalit Mohan and Raaz K. Maheshwari (2022). Enormously Beneficial Chia Seeds in Modern Food Regimen. *International Journal of Environment and Health Sciences*, 4(1), 20-23.
- Lalit Mohan, K.P. Singh and Raaz K. Maheshwari (2022). Prominent Usage of Cardamom [*Elettaria cardamomum* L. (maton)] for Uplifting Invigorating Healthcare. *International Journal of Environment and Health Sciences*, 4(1), 15-19.

### Book/Book Chapters

1. Bina Rani, Lalit Mohan, Raaz K. Maheshwari. (2023). *Biotechnology and Waste Water Treatment*. Discovery Publishing House Pvt. Ltd. (ISBN-13: 978-8196120467).
2. Bina Rani, Anju Sharma, Rajesh Kumar Yadav, Lalit Mohan, Raaz K. Maheshwari. (2023). *Plastic Waste Pollution and Mitigation Strategies*. Discovery Publishing House Pvt. Ltd. (ISBN-13: 978-8196120436).
3. Bina Rani, Krishna Pal, Deepmala Verma, Lalit Mohan, Raaz K. Maheshwari. (2023). *Bioactive Constituents Usage in Cosmetics and Vitality*. Discovery Publishing House Pvt. Ltd. (ISBN-13: 978-8196120412).
4. Bina Rani, Raaz K. Maheshwari, Lalit Mohan. (2023). *Biochemistry and therapeutic attributes of culinary herbs*. Discovery Publishing House Pvt. Ltd. (ISBN-13: 978-9394917064).
5. Bina Rani, Lalit Mohan, Manish Kumar, Ashok Kumar Kakodia, Raaz K. Maheshwari. (2023). *Antioxidants and Food Adulteration*. Discovery Publishing House Pvt. Ltd. (ISBN-13: 978-8195916993).

6. Bina Rani, Kumud Tanwar, Lalit Mohan, Shailendra Patni, Raaz K. Maheshwari. (2023). *Air Pollution Impacts on Health, Prevention Strategies and Mitigation Measures*. Discovery Publishing House Pvt. Ltd. (ISBN-13: 978-8195916986).

**Placements (2022-23)**

1. Dr. Shivani Sharma was appointed as Scientist-C in ICMR-National Institute of Malaria Research, New Delhi.
2. Dr. Yeduraj. Director, Reliance Zoo. Jamnagar
3. Dr. Niketa Sharma, Asst Professor, DEI
4. Dr. Shruti Sharma, Asst Professor, DEI
5. Dr. Hemant Yadav, Asst Professor, Delhi University.
6. Ms. Shivani Pathak, appointed as PGT Biology in Jawahar Navodaya Vidhyalay, Gujarat.
7. Dr. Deepali Agarwal placed as Assistant Professor, Department of Zoology, Agrawan Heritage University, Agra
8. Mr. Deep Singh placed as Assistant Professor, Department of Zoology, JS. University, Shikohabad

# 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.

## Awards and Recognition

- Prof. Rupali Satsangi attended a face-to-face residency of the UNESCO Chair in Community Based Research and Social Responsibility in Higher Education representing India in UNESCO CHAIR from 31 October to 6 November 2022, Kaula Lamour, Malaysia.
- Prof. Rupali Satsangi delivered an Invited talk on NEP 2020: Transformation of Education FDP on Curriculum Development in Light of NEP 2020 organized by MHRD, 12 August 2022.
- Prof. Rupali Satsangi delivered an invited talk on DEI's Contribution to the United Nations Sustainable Development Goals. an International Conference on the Impact of Science and Research on Human Welfare organized by Springer Nature, 30 March 2023.
- Dr. Namrata Anand received Nari Shakti Award at Ram Krishna Mahavidyalaya, Agra on 02 April 2023.
- Vaishali Singh received Best Research paper Award for presenting a Paper titled Consumer Preference: Local Vs Global Brands with Special Reference to Agra at the 8th annual International Conference of CEPAR of Department of Economics, K J Somaiya Institute of Management, Mumbai, India. She also received Best Research paper Award for co-authoring paper titled Role of social media during Covid-19 Era in India with special reference to Agra in one day International e-conference organized by Bharat College of Arts and Commerce, University of Mumbai.

- Jyoti Gupta received Best Research Paper Presenter Award for paper titled Public Awareness on the New Education Policy in Agra District. In the National Seminar held in Sant Ramkrishna Kanya Mahavidyalaya in Agra on 18-19 November 2022. She also received Best Research Paper Award for paper titled Role of social media during the Covid-19 era in India with special reference to Agra in International Conference on Covid-19: A Holistic Approach towards Sustainability from Bharat College of Arts and Commerce from Mumbai University.

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

- Prof. Rupali Satsangi, Coordinator of DEI-HKU Student Exchange Program in online mode from 20th February 2022 to 28th June 2022 in which 18 selected students from DEI and 10 students from university of Hong Kong participated and had virtual social interaction and joint project entitled as Higher educational institute contribution in attainment of Sustainable Development Goals.

### **Publications**

- Ayushi Kukreja, Ritika Agarwal and Jyoti Gogia (2022). Digital Collaborative Consumption: A Techno-Conscious Approach for Sharing Resources in International Journal of Advanced Research, 10 (7), 861-870, ISSN-2320-5407.
- Sangeeta Kumar and Sumi Goswami (2022). Banking sector development under the financial inclusion in India: an analytical study In Journal of Interdisciplinary Cycle Research, 14 (3), 1537-1547. ISSN 0022-1945.
- Sangeeta Kumar and Priya Soni (2022). Significance of education among scheduled caste females at Agra district in Uttar Pradesh Zeichen, 8(3), 144 -151, ISSN No: 0932-4747.
- Sangeeta Kumar and Sumi Goswami (2022). The financial inclusion plan in India: an assessment of the progress, International Journal of Engineering Technology and Management Sciences, 6 (2), ISSN: 2581-4621.
- Sangeeta Kumar & Sumi Goswami (2022). The financial inclusion plan in India: an assessment of the progress in International Journal of Engineering Technology and Management sciences, 6 (2), ISSN: 2581-4621.
- Sangeeta Kumar & Priya Soni (2022). Significance of education among scheduled caste females at Agra district in Uttar Pradesh in Zeichen Journal, 8 (3), 144 -151, ISSN No: 0932-4747.
- Sangeeta Kumar & Sumi Goswami (2022). Banking sector development under the financial inclusion in India: an analytical study, Journal of Interdisciplinary Cycle Research, ISSN 0022-1945, 14 (3), 1537-1547.
- Suraj Pratap Singh (2022). Impact of Covid-19 on Indian Economy A General overview in Sambodhi (Indological Research Journal of L. D. I. I) 44 (3), ISSN: 2249-6661.
- Vaishali Singh (2022). Contemporary Issues in Multidisciplinary Subjects on Awareness Among Youth about Cryptocurrency in India with Special Reference to Agra, 2, ISBN:978-93-93239-67-9.
- Namrta Anand (2022). Flipped Side of a Coin: A Positive Approach to Immigration, Business Economics Magazine, 13-14.
- Namrta Anand (2022). Malthusian Population Theory and COVID-19 Pandemic: A Theoretical Relationship, Business Economics Magazine, 27 (06), 30.

- Namrta Anand (2022). *Exploring India's Export Opportunities to Surpass China's Position in Global Arena in Pandemic Era: A Policy Based Case Study of Leather Industry*, *Arthshastra Indian Journal of Economics and Research*, 11 (1), ISSN: 2278 – 1811, 46-59.
- Vaishali Singh (2022). *A Study of Streaming Videos as a substitute of Traditional mode of Entertainment with special reference to youth of Agra* in *Journal of Research and Development*, 14 (14), ISSN:2230-957.

### **Participation in Conferences/ Seminars Workshops**

- Jyoti Gogia and Rupali Satsangi attended an international workshop on Community-Based-Participatory-Research (CBPR) at Kuala Lumpur, Malaysia from October 30-November 6, 2022. The workshop was organized by the Mizan K4C Hub at the Mizan Research Centre, Faculty of Leadership and Management, University Sains Islam Malaysia (USIM) and the UNESCO Chair in Community-Based Research and Social Responsibility in Higher Education.
- Jyoti Gogia chaired, technical session of 4th Multidisciplinary National Conference on Pre-Doctoral Research, October 11, 2022
- Jyoti Gogia chaired, technical session of International Conference on Impact of Covid-19 on HUMPEAR, November 7, 2022.
- Vaishali Singh presented a paper on Role of E-Commerce during Lockdown at International Conference on Contemporary Issues in Business Management and Information Technology (CIBMIT 2022), Amity University, Patna. September 2022.
- Vaishali Singh attended a workshop on Faculty Development Programme on Qualitative Research Tools and Techniques with special reference to APA Format (7<sup>th</sup> Edition) IPEM, Ghaziabad, September 2022.
- Jyoti Gupta presented a paper on Public Awareness on the New Education Policy in Agra District. In the National Seminar held in Sant Ramkrishna Kanya Mahavidyalaya in Agra on 18-19 November 2022.
- Jyoti Gupta presented a paper on India's Sustainable Blue Economy Development in Indo- Pacific in International Conference held in International Centre for Indo-Pacific Studies Department of Economics Kurukshetra University, in Kurukshetra, Haryana, India Sant Ramkrishna Kanya Mahavidyalaya on 02-03 September 2022.

### **Placements**

- Dr. Namrata Anand is appointed Assistant professor at the Northcap university, Gurgaon.
- Vabhav is appointed as Sr. Executive Procurement, Commercial/Procurement department, Three D Integrated Solutions Ltd. Gurgaon Haryana
- Nirat Kavia is appointed as Guest Faculty in the Department of Economics, DEI, Agra
- Dr. Sumi Goswami was appointed as Assistant Professor in Dr MPS College of Business Studies, Agra.

## 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. Department of Management is headed by Prof. Sanjeev Swami. Additionally, there are 7 Professors, 3 Associate Professor and 7 Assistant Professors. The department offers undergraduate (BBM), post graduate (MBA in Business Management), M.Phil. 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. This year the department introduced a new Post Graduate Diploma in Urban Planning and Management. Department of Management is headed by Prof. Sanjeev Swami. Additionally, there are 7 Professors, 3 Associate Professor and 7 Assistant Professors. 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.

### **New programs introduced:**

- MBA General Management,
- MBA Innovation
- MA (Soc. Science Business Management)
- MBA Waste Management
- BBM Retail
- BBM Logistics

### **Faculty/Staff Achievements/ Awards/ Faculty Development Programme**

- Prof Sanjeev Swami got appointed as Reviewer for NSC2023, International Journal of Applied Mathematics and Computation, International Journal of Computers & Industrial Engineering, International Journal of Electronic Commerce Research & Applications, International Journal of Heliyon, International Journal of Cleaner Production, International Journal of Omega, International Journal of Operations Research Perspectives, International Journal of Resources, Conservation & Recycling, International Journal of Sustainable Operations & Computers, International Journal of Advances in Management Research.
- Prof. Sanjay Bhushan Ranked among Top 5% International Authors consecutively in 2021, 2022 and 2023 by SSRN Elsevier Inc., USA, Appointed as Reviewer, The Emerald International Journal of cybernetics, Systems and Management Sciences 2023, appointed as Convener, International Seminar on Systems Approach to Mobility: Need for Safety & Security 2023 and NSC 2022 and 2023. Prof. Sanjay Bhushan was part of DEI-Task group to

develop policy papers for UGC-MHRD, Guidelines for Credit Based Courses and Opportunities for Internship with local Industry, Business, Artists, Crafts Persons., UGC, April- May 2022 and UGC-MHRD, Guidelines for Evaluation Methods (NEP-NHEQF Mapping), April- May 2022.

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

- Pranu Sharma and Sumita Srivastava participated in the 5<sup>th</sup> international conference on challenges in Emerging Economies with the theme Business Agility and sustainability in the Heuristics Environment at KJ institute of Management, Mumbai, India on 10 December 22. They also presented paper entitled 'Revisiting career aspirations of post pandemic millennials and their Employee Experience: A study to explore their retention strategies.
- Ratika Rani and Sumita Srivastava participated in the 5<sup>th</sup> international conference on challenges in Emerging Economies with the theme Business Agility and sustainability in the Heuristics Environment at KJ institute of Management, Mumbai, India on 10 December 22. They also presented paper entitled 'Impact of Mentoring Function on Entrepreneurial Self-efficacy and Effectual Logic of Grass-root Innovators: An Exploratory Study'.
- Bhatnagar, P., and Tadiparthi, A presented paper on The Role of Artificial Intelligence in Marketing: A Review of Literature. Software Product Management Summit 2022 organized by IIM Bangalore.
- Purnima Bhatnagar, Anoop Srivastava, Mukti Sri Narain, Samiksha Dabrai, Madhu Bhatnagar, Radhika Tadiparthi, Amoli Tadiparthi gave oral Paper Presentation on CSR in Educational Infrastructure: Mapping Initiatives to Outcomes in NSC 2022.
- Mahima Yadav and Purnima Bhatnagar presented a poster on: Sigma Six Q: Women Empowerment through Self Defence in 46<sup>th</sup> National Systems Conference during 27-29 June 2023.
- Purnima Bhatnagar participated in Action for Restoring Environment (ARE) Conference and Energy Swaraj Awards 24-25 November 2022 at AICTE. She also participated in talk delivered by Ms. Sahana Singh on Best Practices in Higher Education, Taking Inspiration from India's Educational Heritage on 22 November 2022.
- Sanjay Bhushan presented paper on 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.

### **Publications**

- Agarwal P, Swami S, Malhotra SK. (2022). 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*, ISSN: 2053-4620.
- 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.

- Kumari, B., Kaur, J., & Swami, S. (2022). Adoption of artificial intelligence in financial services: a policy framework. *Journal of Science and Technology Policy Management* ISSN: 2053-4620.
- 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.
- 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.
- Bhatnagar, P., and Tadiparthi, A. (2023). AI in Marketing: Literature Review on Focus Areas and Issues. *International Journal of Applied Marketing and Management.*, 8 (1).
- Tyagi, S., & Bhatnagar, P. (2023). Roboethics: A Bibliometric Review [2005-2021]. *International Journal of Business Analytics and Intelligence*. 2023, 11 (1).
- Jayant, P., Nigam, S., Bhatnagar, P. (2023). Management and adoption of Technological innovations in the Agricultural Sector especially in the Sugarcane Industry. *POSITIF Journal*, (4).
- Bhatnagar, P., & Nigam, S. (2022). Panel Data Study: CSR disclosures and Financial Performance. *Drishtikon: A Management Journal*. 2023, 13 (2).
- Vatsa, R., & Bhatnagar, P. (2023). A System Modelling Approach to Simulate Post-COVID-19 Student Intention to Use Online Learning Platforms. *International Journal of Information and Learning Technology*.
- Akanksha Verma, Sunita Kumari Malhotra, and Sanjeev Swami Book chapter, "The impact of service quality on customer loyalty of indian E- commerce Industry: the mediating role of customer satisfaction" by Pragati Agarwal.

## 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/ Faculty Development Programme

- Dr. Ishwar Swaroop Sahay completed Refresher Course on Human Rights from 20 July 2022 to 02 August 2022, Organised by UGC, HRDC, AMU, Aligarh.
- Dr. Ishwar Swaroop Sahay was invited as a Guest Speaker on the Theme of उच्च शिक्षा एवं सामाजिक समावेशन in Webinar, Organised by GDC, Ganai, Gangoli (Pithoragarh), Uttarakhand on 26 May, 2023.
- Dr. Rachna Yadav was Participated in the 11<sup>th</sup> Online one-month Faculty Induction Programme organized by the UGC-HRDC, JAMIA MILLIA ISLAMIA, New Delhi from 1-29 November 2022 and obtained grade A.
- Dr. Rachna Yadav contributed in organizing face to face Masters' Trainers' Training Programme, held at Dayalbagh Educational Institute Deemed to be University on 15-17 July, 2022.

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

- Anjali Seth presented paper in Multidisciplinary International Conference on Pre and Post-Doctoral Research in India and World on the topic "Representation of Women in Indian Politics: With Special Reference to the Lok Sabha" on 25<sup>th</sup> March, 2023 organized by Dayalbagh Educational Institute (Deemed to be University) Dayalbagh, Agra, Uttar Pradesh.
- Dr. Birpal Singh Thenua participated in an International Conference entitled 1<sup>st</sup> Multidisciplinary International Conference on Pre- and Post-Doctoral Research in India and World on 25 March 2023 organized by Dayalbagh Educational Institute, Agra. He also Participated in the National Seminar entitled Preservation and Restoration of Indian Socio-Cultural Heritage: National Education Policy 2020 on 17 April 2023 organized by Madhya Pradesh Dalit Sahitya Academy, Ujjain MP.
- Shubhankshi Sonker, paper titled "Dalit Feminism: Possibilities and Limitations" presented in the Berkshire Conference of Women Historians in California in June 2023. She also presented a Paper titled "India's Response to Nuclear Technology in Post-Fukushima Period" at CTBTO: Science and Technology Conference in Vienna in June 2023. She also attended the One-Day International Seminar on "Youth Mental Health and Well-Being Professional Perspective" on National Youth Day in India organized by ICERT. She also attended One-Day International Seminar on "DigitAll: Innovation and Technology for Gender Equality in India organized by DTU Ethiopia and ICERT.

### **Publication**

- Gaur B. (2022). Wealth and Status Mobility of Scheduled Caste Women, in Printing Area International Interdisciplinary Research Journal, ISSN 2394-5303.
- Gaur B. (2022). Women Entrepreneurship: A Socio-economic Analysis, in International Journal of Social Science and Management Studies (I.J.S.S.M.S) ISSN: 2454-4655.
- Gaur B. (2022). A Study on Awareness of Maternity Benefit Right in women Worker in Organized Sector with Special Reference to Construction Industry, in Swadeshi Research Foundation A Monthly Journal of Multidisciplinary Research 12, 9, ISSN: 2394- 3580.

- Sahay I. S. (2022). *Kritrim Bhuddimatta ka Samaj Par Padhne Wale Prabhav ka Samajshatriya Addhyan (Hindi) Adhunik Sahitya*, 44, 90-96, ISSN 2277-7083.
- Thenua, B. S.; and Vijayraj, P. (2022). *Online Video Gaming Among Children and Adolescents: Need to regulate Video gaming in India. Purana*, 65, 8(1).
- Thenua, B. S. and Khushbu. (2022). *Manavadhikar: Anya Pichhade Varge Ki Mahilaon Ke Sandharva Mein (Hindi). Swadeshi Research Foundation A Monthly Journal of Multidisciplinary Research*, 09 (11). 66-68.
- Thenua, B. S. and Sanjana. (2022). *A Sociological Study of Reintegration of Homeless Children in Indian Society: A Indian Perspective. International Journal of Creative Research Thoughts*, 10 (12).
- Thenua, B. S. (2022). *Human Rights of Women in the Constitution of India: A Sociological Study of University Going Girl Students of Agra. Journal of Positive School Psychology*, 6 (6), 2776-2784.
- Thenua, B. S. and Khushbu. (2022). *Manavaadbikar and Dalit Mabilayein (Hindi). Shodhasamhita*, 9 (12), 107-118. July-December 2022.
- Yadav, Rachna (2022). *Green Solutions to minimize waste reduction for developing sustainable society: An Anthropocentric-cultural approach, Shodh Pratigya Shree*.
- Rachna (2023). *Democratic Participation in Educational Process and Sustainable Yadav, Development, Omniscient*.
- Singh L. and Sharma Devika. (2022). *मैला सफाई कर्मी एवं कानून के प्रति जागरूकता: एक समाजशास्त्रीय अध्ययन (आगरा नगर का वैयक्तिक अध्ययन) Journal of Emerging Technologies and Innovative Research*, 9 (11).
- Singh Lajwant and Bhardwaj Nikita. (2022). *भारतीय समाज में विधवा महिलाओं की समस्याएँ एवं लिंग असमन्ता का समाजशास्त्रीय अध्ययन (Hindi). Swadeshi Research Foundation*, 9 (12).
- Singh Lajwant and Bhardwaj Nikita. (2022). *आश्रम एवं सदको की विधवा महिलाओं की सामाजिक एवं आर्थिक स्थिति का तुलनात्मक अभ्यास (वृंदावन के विशेष संदर्भ में), International Journal of Social Science and Management Studies*, 8 (9).

## Schools and Colleges

### DEI Technical College

#### Alumni Meet Organized at DEI Technical College



An Alumni meet of the students of Diploma in Engineering, batch 1994-1997, was organized in DEI Technical College on 9 July 2022. Dr. Mukesh Kumar, Asst. Lecturer at the college, coordinated this programme. The aim of this programme was to introduce the alumni to the present batches of students for motivation and also to conduct the celebration of their silver jubilee. The alumni gathered at the university with great enthusiasm and passion. They visited various departments of the college with nostalgic fervour. The Principal of DEI Technical College, Mr. V P Malhotra shared the progress of the college in 25 years (1997-2022) and gifted the alumni a Memento. The alumni also presented a Souvenir to the Principal. The alumni shared their experiences with the current students and also counselled them regarding their career choices. A cultural programme was also presented in which both ex-students and current students zealously participated. Dr. M Radhakrishna ended the session with a vote of thanks. After completion of the introduction period, the ex-students proceeded towards the Technology Park of the college for tree plantation. A football match was also played between the alumni and 2<sup>nd</sup>-year students. The 2<sup>nd</sup>-year students won the match and were awarded.

#### DEI P.V. Primary School's Children attained top ranks at SOF Olympiad

By the Supreme Grace, some of DEI P.V. Primary School students attained commendable achievements in SOF OLYMPIAD Exams in six subjects during the academic year 2021-22. A total of 37 Students from the school participated in the world's biggest Olympiad conducted by over 68000 schools spread across 48 Countries. The details are mentioned below:

S.No.	Name	Class	Subject	International Rank
1.	Amrit Satsangi	III	Mathematics Social Studies Cyber English	2 6 6 18
2.	Saar Paul Satsangi	III	Mathematics	2
3.	Satt Vaish	III	Mathematics	8

4.	Akshar Suri	V	Mathematics	11
----	-------------	---	-------------	----

During the 45<sup>th</sup> National Systems Conference and Fourth International Conference on Dayalbagh Science of Consciousness, which were held during September 25-29, 2022, students of DEI-Prem Vidyalaya displayed exhibits of Science, Home Science, and Vocational Courses. The students of the Science stream displayed their working models which included some interesting themes like, 'How to Generate Wind Energy for Clean Energy', 'Driver Drowsiness Detection System', 'A Step Towards Super Intelligence Student Entrepreneurship through Coding', 'Agro Integrated-Sensors Devices', 'Super Intelligent Machine vs Superman', 'Health Care Habitat', etc.



**Ms Mukti Sahani, a student of class X, presented a paper entitled, 'Tribal Consciousness: A Traditional Vision of Collective Belonging', in the Fourth International Dayalbagh Science of Consciousness, which was adjudged one of the Best Papers.**

### **Soami Nagar Model School, Delhi**

#### **SNMS student earns recognition as The Ambassador of Cleanliness and Sustainability at the National Level**

- A two-day programme, 'Swachhta Saarthi Samaroh' was organized on 30 September and 1 October 2022, at the Indian Institute of Technology (IIT), Delhi. This event marked the completion of the first year of the Swachhta Saarthi Fellowship (SSF) of the Waste to Wealth Mission of the Office of Principal Scientific Adviser (PSA), Government of India.
- On the occasion, Arya Swaroop from Class XII, Soami Nagar Model School, Delhi was selected along with 18 others for the award of the prestigious SSF in the 'A' category out of 400 contenders. He received a fellowship amount of INR 5000.
- Master Arya earned the fellowship because of his noble and persistent efforts to create social awareness pertaining to garbage-free communities and utilization of partially/ completely biodegradable waste. He created briquettes out of waste and encouraged his peers also, to do the same - an initiative that exemplifies his zeal and commitment to the cause. He helped unblock and operationalize a drain in his colony, which had been hitherto covered with piles of garbage.
- The event at IIT Delhi was graced by several eminent personalities, such as, Scientific Secretary, Principal Scientific Adviser, Government of India; Dr. Bhagwan Singh Chaudhary, Professor, Kurukshetra University, Haryana; Mr. Vijay Kumar, Head of Operations, Wellbeing Out of Waste (WOW) Programme, ITC Limited; Ms. Malyaj Varmani, Vice President, Invest India; amongst other dignitaries.



## Seminars and Conferences

### **Lectures Held as Part of the Distinguished Lecture Series**

The Dayalbagh Educational Institute (Deemed to be University) Distinguished Lecture Series (Erstwhile Diamond Jubilee Memorial Lecture Series of REI) had two Lectures organized for the session 2022 - 2023. On 17 December 2022, Shri Vijay Kumar Thallam, I.A.S. (Retired), Executive Vice Chairman, Rythu Sadhikara Samstha (A Government Corporation for Farmers' Empowerment) and an Ex- officio Special Chief Secretary (Natural Farming), Agriculture and Cooperation Department, Government of Andhra Pradesh, gave an Invited Talk. He spoke on the topic, Farming in Harmony with Nature – for People and the Planet – A Solution for Multiple Emergencies: Lessons from AP Community Managed Natural Farming. This lecture was jointly organized with the Systems Society of India (SSI).

- On 7 January 2023, Dr. Michael Grubb, Professor of Energy and Climate Change, University College London, UK, gave a Lecture on the topic, Energy, Climate and the Economics of Innovation. This lecture was jointly organized with the Society for Preservation of Healthy Environment and Ecology and Heritage of Agra (SPHEEHA), The (Dayalbagh) Radhasoami Satsang Association of Europe Property Holding Charitable Incorporated Organisation (DRSAE CIO) and the Systems Society of India (SSI).
- Saturday, 17 December 2022, Shri Vijay Kumar Thallam, I.A.S. (Retired) Executive Vice Chairman, Rythu Sadhikara Samstha (A Government Corporation for Farmers' Empowerment); Ex officio Special Chief Secretary to the Government (Natural Farming), Agriculture and Cooperation Department, Government of Andhra Pradesh Farming in Harmony with Nature – for People and the Planet – A Solution for Multiple Emergencies: Lessons from AP Community Managed Natural Farming.
- Saturday, 07 January 2023 (Proposed), Prof. Michael Grubb Professor of Energy and Climate Change, University College London, UK. Energy, Climate and the Economics Of Innovation
- Sunday, 29 January 2023 (Proposed), Dr Alfy Gathorne-Hardy, Global Academy of Agriculture and Food Systems, University of Edinburgh, UK What would Agriculture Look Like if Designed by an Ecologist?

### **The 45<sup>th</sup> (Inter) National Systems Conference (NSC 2022) on the theme Global Sustainability through Lacto-Vegetarian Agroecology Systems co-organized with 4<sup>th</sup> International Dayalbagh Science of Consciousness Conference during 26 – 29 September 2022.**

The forty-fifth (Inter) National Systems Conference (NSC 2022) was co-organized with the fourth International Dayalbagh Science of Consciousness Conference (DSC 2022) on 26 – 29 September 2022 at Dayalbagh Educational Institute in partnership with the Systems Society of India. The conference was organized in hybrid mode on the theme Global Sustainability through Lacto-Vegetarian Agroecology Systems.

A call for papers for the conference was published several months in advance on the websites of Dayalbagh Educational Institute and the Systems Society of India that attracted submission of 129 research papers. All submissions were reviewed by multiple reviewers drawn from a pool of experts in respective areas, based on which thirty-six submissions were selected for oral presentations, divided into six sessions in different broad areas with six papers each, while another forty-one submissions were shortlisted for poster presentations. The broad areas for the six oral presentation sessions were

Consciousness based and Literary Systems; Energy Systems; Agroecology Systems; Environment Systems; Healthcare Systems; and Information and Communication Systems. The poster session for the conferences was organized jointly. The authors had the option to present their paper in-person or through a pre-recorded video of 8 minutes duration for oral presentation and 3 minutes duration for poster presentation, followed by live audio interaction with questions and answers. All thirty-six papers for oral presentation and thirty-two posters were presented. The session chairs adjudged the best paper presented in their respective session. The awards for best papers and the annual awards of the Systems Society of India were presented at the joint awards ceremony for the two conferences.

The conference featured three plenary sessions, with invited talks by eminent speakers, as follows:

1. Prof. Ray Ison, President, International Federation for Systems Research, Seeking transformation: a praxis for using and institutionalizing systems thinking in practice (STiP) in policy settings.
2. Dr. S Unnikrishnan Nair, Director, Vikram Sarabhai Space Centre, Sustainability in Launch Vehicle Program.
3. Prof. Ashwani Pareek, Executive Director, National Agri-Food Biotechnology Institute, Are we ready to feed nine billion?

The joint conference concluded with a lively panel discussion, where each panellist presented views on the questions set forth by the moderator, based on their individual expertise. This was followed by a short cultural programme presented by the students of the Dayalbagh Educational Institute. The Annual General Meeting (AGM) of the Systems Society of India was held on Friday, September 30, 2022.



### **National Seminar on Systems Approach to Accelerate Mobility: Need for Safety and Security (Online)**

A National Seminar on Systems Approach to Accelerate Mobility was organised on 8 April, 2023 at the International Seminar Hall Complex alongwith Association for Transport Development in India (ATDI), New Delhi. Around 25 national and international experts, government officials, consultants, academicians and officers delivered their invited talks in the event. The event was blessed by the Inaugural address of Most Revered Prof. P.S. Satsangi Sahab on the theme of 'Combative Roles in Defence Forces {Nationally and Internationally viz. AADEIs, AAFDEI, DRSA (Australasia), DRSAE (Europe), DRSA (North America), DRSAAP (Asia pacific), DRSA (Sri Lanka)}.

The event also featured special Documentary on 'Evolution of Education in Dayalbagh' and showcased the range of courses, programs, Multiskilling-cum- Medical camps, NSS, NCC, Rapid Action Force, Superhuman Evolutionary activities and variety of Socio-cultural ethos and celebrated history of Dayalbagh education system for over 200 years. All aspects concerning transportation were included in the seminar, such as, the use of new and renewable energy, communication, use of fuels and fuel efficiency, pollution and delays at toll plazas, deployment of Drone technology, Artificial General

*Intelligence for monitoring driver fatigue, effective policing, mobile services, especially prompt medical aids in case of accidents, provision for trauma centres at suitable distances, provision for freight corridors, ensuring safety from accidents, by allowing long distance transportation only by dedicated freight carriers, and disaster management.*

*The contributors contemplated and suggested implementable ideas and recommendations in the form of bullets for policy action to accelerate for accident-free mobility and connectivity in time-bound manner. Safety and Security along with Accountability at all levels was given the highest priority by all. They said that Mobility of inputs and output with safety & security and connectivity of rural-urban regions are basic ingredients of infrastructure and to improve their efficiency, Govt. has launched infrastructure development plans. Efficient movement of people, goods and services promotes and accelerates the mobility and connectivity to access every nook and corner of the country. Government of India has launched National Logistic Policy (NLP-2022) and an action programme under PM Gati Shakti National Master Plan (NMP) for Multi-Modal Connectivity is also in full process. Smart City official of Agra Administration, Additional Commissioner of Police and Superintendent of Traffic Police also presented their views on the importance of Safety and security for people and their movement within and outside the city. Importance of using mask, safety belt, helmet, children safety, and modern tracking and management devices was specially highlighted in the course of discussion.*

### **International Conference Dayalbagh (Art) Science (& Engineering) of (Evolutionary/Re-Evolutionary) Consciousness (DSC) jointly with the 46<sup>th</sup> (Inter) National Systems Conference (NSC) 2023**



*The 5<sup>th</sup> International 'Dayalbagh (Art) Science (& Engineering) of (Evolutionary/Re-Evolutionary) Consciousness (DSC) jointly with the 46<sup>th</sup> (Inter) National Systems Conference (NSC) on 27–29 June 2023. The theme for this Conference was 'Evolution of Homo Sapiens to Homo Spiritualis for Better Worldliness.'*

*The Conference was attended by renowned experts, scientists, plenary speakers, keynote speakers, delegates, researchers, and students from all over the world. On this momentous occasion, the Inaugural 'Vision-Talk' was delivered by Revered Prof. Prem Saran Satsangi Sahab, Chairman, Advisory Committee on Education (a non-statutory body serving as a think-tank for DEI) in which He highlighted the success of the Dayalbagh model of education in real-life circumstances which are complex in nature. Following the Vision Talk, Dr. Arsh Dhir made a presentation entitled Role of Communities in Achieving Sustainable Development: A Case Study. He discussed the Dayalbagh and DEI model of holistic sustainability with an emphasis on the Trinity of physical, mental, and spiritual*

*perspectives, maternity to eternity, healthcare and eco-habitat, women's empowerment, reaching out to the last, the least, the lowest, and the lost.*

*Earlier, the Conferences commenced with the 'Opening of the Conferences Session' by Inaugural Remarks of Prof. Dr. Anand Srivastav, Coordinating Organizer, DSC, Kiel University, Germany. Prof. (Dr.) Sarup Rani Mathur, Co-Chair (West) DSC, Arizona State University, USA., Prof. (Dr.) Apurva Narayan, Co-Organizer DSC, University of Western Ontario & University of Waterloo, Canada, and Prof. (Dr.) Prem Kumar Kalra, President Systems Society of India, Indian Institute of Technology, Delhi. In his Inaugural Talk entitled Civilization and Culture: The Advent of Conscientiousness, Prof. (Dr.) PK Kalra, Director, Dayalbagh Educational Institute (Deemed to be University), Agra, traced the development of ideas on ethics, social sensibilities, and values, highlighting the personality traits of conscientiousness and how they contribute to culture and civilization.*

*During the other sessions of the Conference, several other distinguished and internationally acclaimed experts, as well as young researchers, delivered their talks or presented their research on topics related to Eastern and Western perspectives on Consciousness, Neuroscience, Mindfulness, Self-awareness, Spiritual Consciousness, Energy Systems, Esoteric Systems Environment Systems Transportation Systems Education Systems Mathematical Systems Information & Communication Systems Biological Systems Healthcare Systems Quantum and Nano Systems Agriculture & Dairying Systems Consciousness based Systems Smart Villages/Cities Literary and Social Systems Values and Quality based Systems Super-intelligent Systems, etc. In the end, a Joint Panel Discussion, a Consensus Building Session, and a short Cultural Programme were held, bringing the Conferences to an immensely fruitful conclusion.*

### ***International Workshop on Rejuvenation and Revival of the Yamuna River***

*An international workshop on the issue of rejuvenation and revival of the Yamuna River and methods to increase the quantity and flow of its water was organised on May 4, 2023.*

## Activities at DEI

### Teacher's Day Celebration



Teachers' Day was celebrated with zeal and enthusiasm by the students of DEI in the International Seminar Hall on 5<sup>th</sup> September 2022. The programme began with the Institute Prayer. Thereafter, a student, Gaurav Sabhani, paid tributes to Dr. Sarvepalli Radhakrishnan, the former President of India, who is known as a brilliant teacher, and a great philosopher.

A group of students paid homage to teachers through 'Guru Vandana' recited in their melodious voice. The students applauded the contribution of the entire DEI Teaching Community highlighting the teacher-student bond in DEI, and saluted the teaching fraternity for their hard work, dedication, and commitment. A self-composed poem paying respects to teachers was presented by Ms. Megha. On this auspicious day, Prof. Sahab Dass, Prof. Surat Kumar, and Prof. K. Maharaj Kumari who retired after a long, devoted and committed service to DEI, were honoured through the presentation of Mementoes. These teachers in their address acknowledged that they have learnt a lot from the Institute and will always remain available to render their services to DEI.

Director DEI, Prof. P.K. Kalra, wishing a happy teachers' day, stated that the teachers are powerful role models who after parents have a great influence in shaping young minds. He stressed that the progress of any educational institute is advanced by its teachers who set an example of selfless service towards both, students, and the institute. Remembering his own teachers on this occasion, Prof. Kalra acknowledged that it was his teachers who made him aware of the different meanings of Guru and emphasized that the one who takes us to the path of salvation is our ultimate Guru. Km. Pratiksha Maurya, and Km. Smriti Singh successfully compered the programme. Km. Nikita Kalra read out the felicitation scripts of the teachers who were honoured. Km. Madhurie proposed a Vote of Thanks on behalf of all the students of DEI. The programme ended with the Institute Song followed by the National Anthem.

### Innovation, Quality and Values Day Celebration



The Innovation, Quality and Valuation Day' was organized on the occasion of Diwali on 23 and 24 October 2022. In the morning session of the programme on the first day, a special presentation by Dayalbagh Women Rapid Action Force was made and an extensive Medical-cum-Multi-skilling Camp was organized in Dayalbagh fields. A Panel discussion was later conducted on the broad theme of 'Moral and Spiritual Values Driven Social Sensibility in Education', which was held at the International Seminar Hall Complex of the Institute. The Panel comprised Shri Anand Kumar Singh, City Magistrate, Agra, Shri Lalit Mudgal, Joint Director, High Court, Lucknow, Shri Himanshu Gautam, ADM (Protocol), Agra and Dr. K. Soami Daya, Professor, Dept. of Physics & Computer Science, DEI. An exhibition organized during the event showcased the wide range of innovative products, models and displays made by students studying in different courses of DEI. The event was blessed with the presence of Most Revered Prof. Prem Saran Satsangi Sahab, Chairman, Advisory Committee on Education, DEI, and Most Respected Rani Sahiba. Prof. Satsangi Graciously remarked that every citizen of India should work hard and dedicate his/her life towards making our country the greatest in the world. The Event ended with the Institute Song followed by the National Anthem.

On the second day of the celebration, the Institute organized students' competitions and presentations in the early morning hours at the agriculture fields of Dayalbagh. The Event was attended by a large number of students, staff, with great zeal and enthusiasm. The session started with an Elocution competition for the students of DEI on the topic 'The Role of Spiritual Values in Building Holistic Personality'. Students from various faculties of DEI presented and supported their viewpoints related to the topic. This was followed by special presentations by the winners of Poetry Recitation competitions held at DEI Prem Vidyalyaya and REI Intermediate College. A remarkable rendering of Bhakti Sangeet was also presented by the Winners at the Event. The audience was then shown a marvellous demonstration of valour and grit by the members of the Women Rapid Action Force of Dayalbagh. The multifarious activities of Medical-cum-Multi specialty camp of DEI were also presented and appreciated by one and all in the gathering.

Shri S Naiyer Ali Najmi, Principal Commissioner, Income Tax, Agra was the Invited Speaker and Chief Guest for the occasion, who delivered his insightful talk on the theme chosen for this year's celebration. The Event was blessed with the August presence of Most Revered Prof. Prem Saran Satsangi Sahab and Most Respected Rani Sahiba. Prof. Satsangi Graciously remarked that the consistent search for the true meaning of conscious and harmonious living and the realization of the consciousness of higher order can only make humans capable of transcending their inherent limits and playing a very meaningful role in life. Everyone who is trying to imbibe and practise values of higher dimensions and is honestly dutiful towards discharging obligations for the society and environment, must be commended and thanked. The Event ended with the Prize distribution ceremony and the Institute Song. The programme drew attendance and participation from a large number of students, teachers, members of staff, the Dayalbagh community, and the general public across around 500 ICT nodes of DEI Pan India and across the world through the e-cascade network.

### **Socio-Cultural Day Celebration**

On the occasion of the festivals of Lohri and Makar Sankranti, the NSS Unit of DEI organized a plethora of activities under the directives received from the Ministry of Youth Affairs and Sports, Govt. of India. This included carrying out campaigns to make the residents of the nearby areas conscious about the need to strictly follow the protocol recommended for protection from the ongoing pandemic,

making them aware of their voting rights, and conducting a cleanliness drive. Besides these, as per the tradition, cultural programmes at different vicinities of the institute were also organized to mark the celebration of the Socio-Cultural Day.

While on both the days of the festivals, i.e., on 13 and 14 January 2022, the morning session was spent by the NSS Volunteers in organizing a cleanliness campaign in the areas situated near the institute, in the evening of the Lohri day, a vibrant cultural fiesta was organized for the DEI students. The programme commenced with the Director DEI's Address, where he welcomed the gathering and elucidated the significance of celebrating Lohri and Makar Sankranti. Following this, a multifarious cultural bonanza was catered by the DEI students, which included the presentation of folk songs and dances representing different regions of India, self-composed poetry as well as musical melodies with the accompaniment of multiple instruments, organized around the symbolic smokeless fire. The presentations by the girls were organized at the Girls' Hostels vicinities and the boys and student groups from different schools of DEI showcased their talent at the open fields of Dayalbagh. The distribution of traditional delicacies made of peanuts, Gur, Til, etc. enhanced the excitement quotient of the gathering. The complete programme was conducted while following all the precautionary measures as per the recommended protocol at the time of the Pandemic.

### German Parliamentary Delegation Visits Solar-Agricultural Farm



A delegation consisting of the Chairman and some members of the Budget Committee of German Bundestag visited the Solar-Agriculture Farm in the Dairy campus of the Dayalbagh Educational Institute on 12 February 2023. The purpose of the visit was to see the Solar-Agriculture Farm at DEI as a success story of integrated Solar Agriculture farming. They were also interested in the community-based model of agriculture, healthcare habitat and sustainable development initiatives implemented by the Dayalbagh Educational Institute.

The visit took place on the recommendation of Indo – German Energy Forum and National Solar Energy Federation of India. An elaborate exhibition showcasing the enormous variety of activities in pursuance of the UNDP Sustainable Development Goals, Research and Development including Research Platforms and the innovative scheme of education of DEI was organized by the staff and students.

The committee very much appreciated the concept of the Solar-Agriculture farm, popularly known as Agri-Voltaic, as implemented in Dayalbagh, and raised several queries regarding the same which were duly answered. They were quite impressed by the skilling, community-based model of agriculture, healthcare habitat, and sustainable development initiatives implemented in Dayalbagh. The overwhelmed Prof. Helge Brown, the Chairman of the delegation, gave the following message, signed by all the members of the delegation:

Thank you for the amazing insight in your work. It shows the way to a good future by doing best education and high-class research.

### **NABARD Team Visits DEI**



A team of 55 District Development Managers from various districts and other senior officers led by Mr. S.K. Dora, Chief General Manager of the National Bank for Agriculture and Rural Development (NABARD) visited DEI on 22 September 2022 to explore the possibility of collaboration between NABARD and DEI. The team visited the Solar-Agri Farm, DEI Dairy Campus, DEI Anupam Upvan, HTTP Lab and the exhibits displayed by the students various B.Voc. Programmes along with other facilities of the Institute.

The NABARD has shown interest and agreed to collaborate with DEI on various programmes for rural development. In the initial phase, the following developmental programmes are envisaged to be undertaken-

1. Livelihood Initiative by Skill Development in Handcraft Products in Textile Sector
2. Skilling for Sustainability in Bamboo & Wood
3. Skilling in Pottery and Ceramic

### **Farmer Producer Organization (FPO) for Rural Youth and Farmers**

- Food and Dairy skilling for better livelihood using the low-cost vehicle for milk testing & milk adulteration testing (GoMatta) & (Kemat)
- A low-cost poly house using IoT Technology, Drones and Hydroponics & Aeroponics
- Waste Management (Composting & Agricultural Waste)
- Low-cost Solar Farming
- Other innovative Low-cost Models suitable for Replication in Rural Areas.
- The DEI is in the process of registering and submitting the project proposals.

### **Dayalbagh Educational Institute and Michigan State University, USA Renew and Broaden Partnership**



Dayalbagh Educational Institute (DEI) shares a historical relationship with Michigan State University (MSU) dating back to 1960, when Most Revered Prof. Prem Saran Satsangi Sahab, currently the Chairman, Advisory Committee on Education, Dayalbagh Educational Institutions, joined MSU as a graduate student after accepting the prestigious USAID TCM Scholarship and worked with the doyens and stalwarts of Systems Science and Engineering. He graduated with a master's degree in electrical engineering with the highest academic accomplishments, after completing the requirements of the degree in less than a year.

DEI entered into a formal partnership with Michigan State University in 2012 through an agreement with the College of Engineering. This agreement led to the exchange of visits, collaborative projects and joint publications. The MoU was renewed after the initial five-year term in 2017 and was also expanded to include the College of Agriculture and Natural Resources and the College of Education. As the collaboration between the two Universities continues to thrive and flourish, the agreement has been renewed again in September 2022 and is now University-wide on both sides, with provisions for the development of collaborative programmes under the University Grants Commission, India (Academic Collaboration between Indian and Foreign Higher Educational Institutions to offer Twinning, Joint Degree and Dual Degree Programmes) Regulations, 2022.

### **Training for Entry of Women in Defence Forces**

As a step to reinforce Women's Empowerment, the ICT Continuing Centre of DEI has initiated a training programme for the entry of women into the Defence Forces. The preparation for written examinations for NDA, CDS, and AFCAT is underway and the students who have qualified in the written examination are being prepared by a select group of army and civilian professionals for a rigorous five-day SSB screening process. Areas for training include psychological testing, verbal and non-verbal reasoning, GK, physical training, group tasks, GDs, lecturettes and interviews, etc.



### **Celebration of the Birth Anniversary of Gurudeva Rabindranath Tagore**



7<sup>th</sup> May 2023, the 162<sup>nd</sup> birthday of Gurudeva Rabindranath Tagore, the Bard of Bengal, was celebrated by the Centre for Art, Beauty and Creativity at 'Anupam Upvan' Campus of the Institute. The Ceremony was inaugurated by Prof. Prem Kumar Kalra, Director of the Institute, who wished success to all. The main speaker of the programme, Prof. Gopalji Pradhan, Ambedkar University, Delhi while speaking on the topic Educational Philosophy of Rabindranath Tagore opined that Tagore was an exclusive supporter of world humanity. He considered the structure like lines or boundary walls in the structure of universities to be meaningless and a hindrance to knowledge. That is why he conceptualized Visva-Bharati, where he dreamt of such a temple of education that is devoid of any doors or walls.

The Chief Guest of the Programme, Mr. Anand Kumar, City Magistrate, Agra, said in his address that we will be able to achieve the real goal of education only by adopting the education policy of Rabindranath Tagore. Programme Coordinator of the Centre for Arts, Beauty and Creativity, Dr. Prem Shankar Singh, keeping the outline of the programme before the audience, remarked that Gurudeva Rabindra considered spirituality, education, and artistry necessary for building social consciousness.

The highlight of the Programme was the Yoga and Meditation Camp under the fresh rays of the sun beneath the open sky in the picturesque natural environment of 'Anupam Upvan'. The yoga session was conducted by Mrs. Sangeeta Sinha. After that, students of various faculties of DEI, Prem Vidyalaya and REI, performed shramdaan and also took a pledge that they would always be ready to preserve and save nature. After shramdaan, various cultural programmes were presented by the students. These programmes included Rabindra Sangeet, folk singing, musical instruments, on-the-spot painting, posters, street plays, elocution, etc. The students participating in these activities were felicitated and certificates were distributed to them. The Convener of the Programme was Prof. Lovely Sharma, Head, Department of Music, Faculty of Arts, DEI.

## International Yoga Day



On 21 June, 2023, International Yoga Day was celebrated at the Institute with tremendous zeal. During the organization of the event, a Guard of Honour was accorded to the Chief Guest, Shri Mayank Jyoti, Deputy Transport Commissioner, Agra, by NCC cadets. The Chief Guest opined that Yoga is necessary for the health of the body and mind of every person. He also stressed that besides doing yoga, it is also important to do it in the right way. This was followed by a Yoga Training Session, in which training was given by yoga gurus Smt. Sangeeta Sinha and Shri. Abhinav Sinha. Prizes were also given away to the participants performing the best Yogasanas in which, Dr. Parul Bhatnagar, Ms. Kaushiki Verma, and Shri Ramsevak received the first, second, and third prizes respectively. About 200 people performed Yogasanas together. At the end of the Programme, the Vote of Thanks was given by Prof. Akshay Kumar Satsangi, Regional Coordinator, Unnat Bharat Abhiyan.

### 16<sup>th</sup> National Youth Parliament



The National Youth Parliament Competition is conducted under the aegis of the Ministry of Parliamentary Affairs, Government of India. The purpose of the competition is to develop a healthy culture to deal with parliamentary affairs and primarily to inspire the youth to develop themselves to be the representatives of the people. This event represents the Model Parliament, which postulates the ideal parliamentary procedures, decorum, and healthy discussion to adhere to during the session.

The 16<sup>th</sup> National Youth Parliament Competition (Group Level) was conducted by Dayalbagh Educational Institute, (deemed to be a university), Dayalbagh, Agra on August 17, 2022. The Jury consisted of three eminent persons, Prof. S.P. Singh Baghel, Minister of State, Law and Justice, Govt. of India, Prof. Neeraj Mishra, Professor in the Department of Mathematics & Statistics at the Indian Institute of Technology, Kanpur, and Dr. Prahalad Mane, Associate Professor in the Department of Sociology at Shivaji University, Kolhapur.

Fifty-Five students participated in the competition which represented different departments of DEI. The house was divided into Treasury Benches and the opposition. Twenty-five candidates represented

*the Treasury Benches and twenty participants represented the Opposition. The session was of 56 minutes and included ten businesses which are as follows:*

- 1. Oath or Affirmation*
- 2. Obituary Reference*
- 3. Introduction of New Ministers*
- 4. Questions*
- 5. Adjournment Motion*
- 6. Questions involving a breach of privilege*
- 7. Papers to be laid on the Table*
- 8. Calling Attention Notice*
- 9. Legislative Business*
- 10. Welcome of the Foreign Delegation*

*The proceedings started with the oath taken by the new ministers in the ruling party. It was followed by obituary references and the introduction of new ministers of the Textile Ministry and the Ministry of Minority Affairs. Then began the Question-Hour session. The 16<sup>th</sup> National Youth Parliament session included questions on different aspects of National Education Policy 2020 like the entrance exam CUET, etc., and supplementary questions about holistic development; the Swachh Bharat Mission; and the soundness of the Healthcare sector. The members of the opposition then sought permission from the speaker for an adjournment motion to be moved. Procedures like papers to be laid on the table and breach of privilege were also included in the proceedings of the house.*

*The next business item was the Calling for Attention motion where the aim was to address a very urgent and grave matter related to women's security for which the ruling government was required to present the actions taken. The answers were given by the Ministry of Women and Child Development. After the healthy debate on the calling attention motion, the next business item was the passing of the Legislative Bill related to the 'Eligibility Criteria for People's Representative Act (Amendment) 2022'. The session included a discussion on the validity of the Bill, and its practical implications, and was seen with a critical lens by the opposition. On the other hand, the explanation for the points raised was presented by the members of the ruling party. The conclusion of the session was given by the Prime Minister who briefed about how important the implementation of the Bill is. The House was adjourned after the passing of the Legislative Bill. The presentation by the DEI team was highly lauded by all three judges, who at the same time also gave some valuable suggestions for its further enhancement.*

### **NSS Activities**

- NSS strives at inculcating values-based quality education along with the sense of Dignity of labour and social responsibilities.*
- For this purpose, the institute has made NSS a compulsory component as core course of the curriculum of Under Graduate Studies.*
- Which is evaluated separately alike other core courses of the institute.*
- The performance of the students is evaluated on certain parameter which include participation in regular and government directed program, one day NSS camps, FMRAC camps, written examination and seven-day NSS special Camp organized in Adopted Villages and Nearby Slums.*

**Swachh Bharat Abhiyan**



**Socio-Economic Cultural Activities**



**Medical Camp & Rural Assistance**

- Organisation of Free Medical and Assistance Camps (FMACs), initiated on 27<sup>th</sup> June 2010 is an innovative program of the Institute.
- The NSS cell of the Institute organizes FMARCs every Sunday on Regular Basis.
- The total Number of Medical Camp organised- 369
- Rural assistance cell as a part of Free Medical and Assistance Camps was started on 7<sup>th</sup> December, 2014.
- The objective of this cell is to understand basic problems related with agriculture, soil, water, dairying etc. of people in nearby villages and neighbourhood community and to offer most feasible solution.



### **Socio-Economic Development Services**

For the Multifarious development of Society at large, Old, youth, School Dropouts, Housewives and Children of Financially Downtrodden Deprived Section of Society of nearby Villages and Neighbourhood Community, we conduct following activities in Free Medical and Rural Assistance Camps.

- Social/Community Assistance Services
- Education and Career Counselling Services
- Chaupal: Bhagvad Geeta Ke Updesh, and Vocational Training/ Skill Development Services.

### **Unnat Bharat Abhiyan 2.0**

Following activities were conducted under Unnat Bharat Abhiyan.

#### **Master Trainers Training Program**



#### **Regular Medical Camp Counter**



#### **MOOCs Training Workshop at UGC Community Engagement & Social**

#### **Blood Donation Camp**



#### **Open Day/Founder's Day**



#### **MOOCs Launch Responsibility**



**UGC to launch 4 SWAYAM MOOCs Courses**  
PROF. M. JAGADESH KUMAR, Chairperson, UGC

*Join us for the Launch* **6th Feb, 2023**  
*02.00 pm onwards*

<b>History of Indian Buddhism</b> By Prof KTS Sarao	<b>Buddhist Philosophy</b> By Prof Pradeep Gokhale
<b>Abhidhamma (Pali)</b> By Prof Bimalendra Kumar	<b>Community Engagement &amp; Social Responsibility</b> By Prof. Akshay K. Satsangi Host University: DEI, Agra

**Course Starting Date :** 6th February, 2023  
**Course Ending Date :** 23rd May, 2023

**Host University for Buddhist Courses**  
Central Institute of Higher Tibetan Studies,  
Sarnath, Varanasi  
**Prof Gehe Ngawang Samten,**  
Vice-Chancellor CIHTS &  
Coordinator Buddhist Studies MOOCs

<https://swayam.gov.in/UGC>

University Grants Commission UGC, INDIA University Grants Commission

### One Day Camps



## Visitors Remarks

In recent times, our Institute has had the honor of hosting numerous distinguished individuals. Upon their visit, they experienced firsthand our values-based academic approach and unwavering commitment to excellence. Impressed and deeply moved by what they witnessed, they couldn't resist expressing their emotions and admiration through words:

- **“Lovely Experience. The whole day was occupied in witnessing innovations in many sectors. Very committed, passionate and innovative faculty. Truly Sustainable Practices. Best Wishes to everyone at DEI”.**

- Prof T.G. Sitharam, Director, IIT, Guwahati

- **“Extremely satisfied and elated to see wonderful activities happening in India. Wish you spread your wings all around the country. Hope to see more Dayalbagh in our country”.**

- Dr. Anuradha V, wife of Prof T.G. Sitharam, Director, IIT, Guwahati

- **“Proud and happy to be the part of 75<sup>th</sup> Independence Day in DEL DEI is unique in Agra and in India producing lakhs of graduates. It teaches the life skills and ecologically sustainable way of living. Thankful and best wishes for producing quality future citizen and transforming Nation”.**

- Manikandan, IAS, Chief Development Officer, Agra

- **It was an absolute delight to have been the Chief Guest for our 75<sup>th</sup> Independence Day. I am truly delighted to see such a disciplined, innovative and enterprising bunch of students and teachers. I wish the team all the very best to produce great talent, in the likeness of the Exhibition. Keep it up! All the Best!**

- Smt. Tabitha Manikandan, wife of A. Manikandan IAS, Chief Development Officer, Agra

- **“This University has a beautiful campus. All sections of university run smoothly. This university has taken very nice efforts for rural development and eco-friendly life in a sustainable manner This university is a combination of Mind, Heart, Science and Technology. The practice of 'Goshala' is very good. This is the example for other institutions to learn 'how we progress’”.**

- Dr. Pralhad M Mane, Dept. of Sociology, Shivaji University, Kolhapur

- **“I am highly impressed with the teaching pedagogy stressed in the institute. DEI is a perfect place for providing wholesome education to youths of this country. I saw their moto of 'maternity to eternity' on grounds by visiting**

*various facilities/activities on campus. Finally, I am also overwhelmed with the hospitalities provided by the institute's officials. I wish the DEI the best in all their future endeavor. I am sure it will become a model for other academic institutions”.*

*- Prof Neeraj Misra, Dept. of Mathematics and Statistics, IIT Kanpur*

➤ *“An amazing experience, overwhelming in the scale of the ambition and yet the eye for every detail. Thank you so much for your generosity and determination to make an impact for everyone”.*

*- Mr. Steven Inchcoombe, Chief Publishing & Solutions Officer, Springer Nature*

➤ *“We were told that we had to be here at five in the morning. We were wondering where are we going, what is happening. Believe me, we are overwhelmed by the hospitality of the management of Dayalbagh Educational Institute, but at the same time we are overwhelmed by the Community that you have created here. I think all of us saw that when we came here today morning. There was a lot of curiosity as to what are we going to see and how different it would be from any other educational institute that we see and know or have the chance and privilege to go to. We have not witnessed such educational institute anywhere—whether in this country or in the world where we have visited. There's a lot that exists here. But bringing together knowledge and bringing it to practice and putting it in a disciplined way of life is something that we see as initiatives. Thank you very much for this and we hope that all the knowledge that you are gathering, all the research that you intend to complete in future with innovation in terms of sustainable development goals, in terms of diversity, inclusion is there to bringing”.*

*- Ms. Nidhi Gulati, Head of Communication, Springer Nature*

**Annexure-I**

Page-1

**RULE:11****BOARD OF MANAGEMENT (GOVERNING BODY)****LIST OF MEMBERS****TERM: 2020-2023 Total Members: 14 Quorum: Eight (As on 1-7-2022)**

<u>Status of Nomination</u>	<u>Name of the Member</u>
(a) 1. Director (Ex-officio)	Professor P.K. Kalra Director Dayalbagh Educational Institute Dayalbagh, Agra-282 005
(b) 2. Treasurer (Ex-officio)	Smt. Sneha Bijlani Treasurer Dayalbagh Educational Institute Dayalbagh, Agra-282 005
(c) 3. Two Deans from amongst the Deans of the Faculties of the Institute by rotation in alphabetical order of the names of the Faculties (Ex-officio) (Term-One year:2022-23) (Engineering & Science) (M-8979361848)	Prof. A. K. Saxena (Superannuated on 23-01-2023) Dean, Faculty of Engineering Dayalbagh Educational Institute Dayalbagh, Agra-282 005, M- 9412559851
4. -do- (M-9897269797)	Prof. C. Patvardhan Dean, Faculty of Engineering Dayalbagh Educational Institute Dayalbagh, Agra-282 005
(d) 5. One nominee of the Ministry of Education, Govt. of India. (w.e.f. 3.3.2021) Mob.- 9412604920 <a href="mailto:Email-kukretibr77@gmail.com">Email-kukretibr77@gmail.com</a>	Dr. (Prof.) B.R. Kukreti Mahatama Jyotiba Phulae Rohilkhand University, C-46/47, Neelkanth Suresh Sharma Nagar, Bareilly- 243006 Uttar Pradesh
(e) 6. Director,	Shri Brahmdev

Higher Education,  
Uttar Pradesh  
(Ex-officio)  
0532-2623874, 2423919 (Fax)  
Phone :9412582038  
Email: [reminder@dheup.com](mailto:reminder@dheup.com)  
[reminder@dheup.com](mailto:reminder@dheup.com)

Director  
Higher Education, U.P.  
Directorate of Higher Education  
Post Bag No.005  
PRAYAG RAJ-211 001

..... 2

Page-2

**BOARD OF MANAGEMENT (GOVERNING BODY) - LIST OF MEMBERS (Contd.)**

**TERM: 2020-2023 Total Members: 14 Quorum: Eight (As on 1-7-2022)**

- |     |   |   |
|-----|---|---|
| (f) | 7. One nominee of the Academic Council of the Institute from among its members as specified in Rule 13(c) and (d). (Res. Term: 2021-2024) (w.e.f. 1.7.2022) (M-8979361848)  | Prof. A. K. Saxena<br>(Superannuated on 23-01- 2023)<br>Dean, Faculty of Engineering<br>Dayalbagh Educational Institute<br>Dayalbagh, Agra-282 005, M- 9412559851 |
|     |   | Prof. C. Patvardhan<br>Department of Electrical<br>Engineering<br>Faculty of Engineering<br>Dayalbagh Educational Institute<br>Dayalbagh, Agra-5                  |
| (g) | 8. One nominee of the Radhasoami Satsang Sabha, Dayalbagh, Agra [e-mail: <a href="mailto:anoop.srivastava.rpf@gmail.com">anoop.srivastava.rpf@gmail.com</a> ]   | Dr. Anoop Srivastava<br>3/22, Prem Nagar<br>Dayalbagh, Agra   |
| (h) | 9. One nominee of the Managing Committee of the Radhasoami Educational Institute of Agra, Dayalbagh, Agra<br><br>(Mob.: 9425323538) (E-mail: <a href="mailto:gs.solanki53@gmail.com">gs.solanki53@gmail.com</a> ) | Justice Gulab Singh Solanki<br>179, Rani Bagh (Main)<br>Khandwa Road,<br>Indore-452020 (M.P.)   |

- (i) 10. One representative each of Industry and Agriculture of Dayalbagh, to be nominated by the President of the Institute.  
Phone: Res. (011) 26148542  
Off. (011) 26149648  
Mob. 09810029790  
[rksinha@gmail.com](mailto:rksinha@gmail.com)
11. -do-  
(M-9837308578)
- (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  
[pami.dua@gmail.com](mailto:pami.dua@gmail.com)
13. -do-  
(M-9219500838)
14. -do-  
(M-9557707948)
- 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 P. Sriramamurti  
4/112, Vidyut Nagar  
Dayalbagh, Agra-282 005

-----x-----

**Rule: 16 - FINANCE COMMITTEE - LIST OF MEMBERS****TERM: 2020-2023    Total Members: 6    Quorum: Three    (As on 1-7-2022)**

	<u>Status of Nomination</u>	<u>Name of the Member</u>
(a)	1. Director (Ex-officio)	Professor P.K. Kalra 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. One nominee of the Department of Finance, U.P. Government. Phone: 2420543 (O) From: March, 2019 Mob.: 9415028408 (e-mail: adagr@nic.in)	Shri Liyakat Ali Additional Director (Treasuries) Agra Mandal Opp. D.M. Office Near Imperial Hotel, Agra
(d)	4. Two nominees of the Governing Body, one of which shall be a Dean (up to 30.6.2022)	Prof. V.K. Gangal Dean, Faculty of Commerce Dayalbagh Educational Institute Dayalbagh, Agra
	5. -do-	Shri A.P. Sinha 3/169, Prem Nagar Dayalbagh, Agra-282 005
(e)	6. One Nominee of the Ministry of Education Tel: 011-23382696 Email: <a href="mailto:jsfa-moe@gov.in">jsfa-moe@gov.in</a>	Shri Sanjog Kapoor Joint Secretary & Financial Advisor Ministry of Education Shastri Bhawan New Delhi-110001

- - - -x- - - -

**RULE : 19****Page-1****List of Members****Managing Council for the Non-University General Educational Institutions****TERM: 2022-2025 Total Members: 19 Quorum: Six (As on 1-7-2022)**

	<u>Status of Nomination</u>	<u>Name of the Member</u>
(a)	1. Director (Ex-officio)	Professor P.K. Kalra 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:snppschoo@dei.ac.in)	Ms. Beenu Kapoor Principal Soami Nagar Pre-Primary School C-33,Second Floor, Soami Nagar (North) New Delhi-110017

7. -do- Mrs. Arti Prasad  
(Mob. 9810282419) Principal  
(email: arti.snms@gmail.com) Soami Nagar Model School  
Soami Nagar (North)  
New Delhi-110017

Page-2

**List of Members - Managing Council (General) (Contd.)****TERM: 2022-2025 Total Members: 19 Quorum: Six (As on 1-7-2022)**

8. Principals of Non-Univ. Ms. Usha Tiwari  
General Educational Principal  
Institutions (NUGEI) Roorkee Model School  
(Ex-Officio) S-3, Handloom Industry,  
7830507157 (Mob.) Dayalbagh Colony,  
9286542683 (Mob.) Ganeshpur (Near Railway Station)  
(tiwariusha1959@gmail.com) ROORKEE-247 667
- (d) 9. One teacher from each of the Ms. Prem Pyari (BS)  
NUGEI by rotation in order of Assistant Teacher  
seniority (Term-One year) DEI P.V. Girls Intermediate College  
(2022-2023) Dayalbagh, Agra-282 005
10. -do- Shri Shailendra Singh  
(2022-23) Lecturer  
REI Intermediate College  
Dayalbagh, Agra-282 005
11. -do- Ms. Shalini Mishra  
(2022-23) Teacher  
Soami Nagar Model School  
Soami Nagar (North)  
NEW DELHI-110017
12. -do- Ms. Rakhi Antule  
(2022-23) 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](mailto:decsecedu@gmail.com) Phone: 0522-2239006 9454457216 (Mob.) Director Secondary Education, Govt. of U.P. Directorate of Secondary Education 18, Park Road LUCKNOW-226001

**Page-3**

**List of Members - Managing Council (General) (Contd.)**

**TERM: 2022-2025 Total Members: 19 Quorum: Six (As on 1-7-2022)**

- (g) 16. One nominee of Ministry of Education, Government of India. +91-11-23074199(O) +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 NIL

Vidyalaya Society, Dayalbagh,  
Agra.

- (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- Prof. (Retd.) Vishal Sahni  
(M-9319211231) Manager  
(Mail id: Rajaborari Estate  
[rajaborariestate@gmail.com](mailto:rajaborariestate@gmail.com)) Timarni, Distt. Harda-461 228  
(w.e.f. July, 2022) (M.P.)

-----  
-----  
--- x ---  
**RULE : 18**

**Page-1**

**List of Members**

**Managing Council for the Non-University Technical Educational Institutions**  
**TERM: 2022-2025 Total Members: 11 Quorum: Six (As on 1-JUL-2022)**

	<u>Status of Nomination</u>	<u>Name of Member</u>
(a)	1. Director (Ex-officio)	Professor P.K. Kalra 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-	Shri Vijay Prakash Malhotra

- |     |   |   |
|-----|---|---|
|     | University Technical<br>Educational Institutions<br>(NUTEI)<br>(Ex-officio) (w.e.f. 1.7.2018)<br>(M- 7300796689)  | Principal<br>DEI Technical College<br>Dayalbagh, Agra-282 005   |
| (d) | 4. One teacher from each of the<br>NUTEI not below the rank of<br>lecturer by rotation in order of<br>seniority (Term-One year)<br>2022-2023  | Shri Mayank Agrawal<br>Lecturer<br>DEI Technical College<br>Dayalbagh, Agra-282 005   |
| (e) | 5. Two nominees of the Governing<br>Body from amongst its members<br>[GBR(by Cir.)-5(b) dated<br>5.3.2022)]<br>(M-9219500838)   | Prof V.B. Gupta<br>3/173, Prem Nagar<br>Dayalbagh, Agra-282 005   |
|     | 6. -do-<br>(Mob. 09810029790)<br>E-mail: <a href="mailto:rksinha@gmail.com">rksinha@gmail.com</a>   | Shri Ravi Kumar Sinha<br>B-2/6, (Ground Floor)<br>Vasant Vihar<br>NEW DELHI-110 057   |
| (f) | 7. Director,<br>Technical Education,<br>Uttar Pradesh.<br>(Ex-officio)<br>0512-2582084 (O)<br>(M) 9455004693<br>Email: <a href="mailto:directordteup@gmail.com">directordteup@gmail.com</a> | The Director<br>Technical Education<br>Directorate of Technical Education, U.P.<br>Near Gurdeo Palace Cinema Hall<br>Zoo Road<br>KANPUR-208 002 |

## Page-2

**List of Members - Managing Council (Technical) (Contd.)****TERM: 2022-2025 Total Members: 11 Quorum: Six (As on 1-JUL-2022)**

	<u>Status of Nomination</u>	<u>Name of Member</u>
(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: <a href="mailto:nro@aicte-india.org">nro@aicte-india.org</a>	The 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: <a href="mailto:vpswarup@gmail.com">vpswarup@gmail.com</a>	Shri V. Prem Swarup 3, Dayal Nagar Dayalbagh, Agra

-----

**RULE:13****ACADEMIC COUNCIL - LIST OF MEMBERS****Page-1****TERM: 2020-2023 Total Members: 58 Quorum: Ten (As on 1-7-2022)**

	<b><u>Status of Nomination</u></b>	<b><u>Name of the Member</u></b>
(a)	1. Director (Ex-officio)	Professor P.K. Kalra Director Dayalbagh Educational Institute Dayalbagh, Agra-282 005
(b)	2. Deans of Faculties (Ex-officio) (1.7.2020 to 30.6.2023) (Mob-9410005843)	Prof. Sharmila Saxena 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. -do- (M-9897269797)	Prof. Sant Prakash 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 1.7.2022 to 30.6.2024)  
(Mob-9997521207)
- Prof. Rahul Caprihan  
Dean, DEI ICT Centre  
Rajaborari-Tmarni

Page-2

**RULE:13****ACADEMIC COUNCIL LIST OF MEMBERS (Contd.)****TERM: 2020-2023 Total Members: 58 Quorum: Ten (As on 1-July-2022)**

9. Deans of Faculties  
(Ex-officio)  
(from 1.7.2022 to 30.6.2024)  
(Mob-9760104037)
10. -do-  
(from 1.7.2022 to 30.6.2024)  
(Mob-9319053512)
11. -do-  
(from 1.7.2022 to 30.6.2024)
12. -do-  
(from 1.7.2022 to 30.6.2024)
13. -do-  
(For a period of one year)  
( up to 30.6.2023)  
(Mob-9639490081)
14. -do-  
(w.e.f. 1.1.2022 to 30.6.2024)  
(w.e.f. 1.1.2022 to 30.6.2024)  
(Mob-9897347581)
15. -do-  
(w.e.f. 1.1.2022 to 30.6.2024)  
(Mob-9411403166)
- Prof. Gur Saran  
Dean, DEI ICT Centre  
Soami Nagar, New Delhi
- Prof. J.K. Verma  
Dean, DEI ICT Centre  
Murar
- Prof. C. Patvardhan  
Dean, DEI ICT Centre,  
MTV Puram
- Dr. V.S. 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

16. -do-  
(w.e.f. 1.1.2022 to 30.6.2024)  
(Mob-7599048457)
- Prof. Sona Ahuja  
Dean, Non-University Edu. Inst.  
Dayalbagh Educational Institute  
Dayalbagh, Agra

**RULE:13****Page-3****ACADEMIC COUNCIL - LIST OF MEMBERS (Contd.)****TERM: 2020-2023 Total Members: 58 Quorum: Ten (As on 1-July-2022)**

- (c) 17. Heads/Incharges of all the teaching departments in the university faculties, who are not Deans.  
(w.e.f. 1.1.18)  
(Mob-8958637693)
- Prof. Agam Kulshrestha  
Head, Deptt. of Sanskrit  
Faculty of Arts  
Dayalbagh Educational Institute  
Dayalbagh, Agra-282 005
18. (w.e.f. 22.7.2021)  
(Mob-98755441296)
- Dr. Meenakshi Thakur  
Head, Deptt. of Drawing & Painting  
Faculty of Arts  
Dayalbagh Educational Institute  
Dayalbagh, Agra-282 005
19. -do-  
(Mob-9897289879)
- Prof. Sangita Saini  
Head, Deptt. of Home Science  
Faculty of Arts  
Dayalbagh Educational Institute  
Dayalbagh, Agra-282 005





- not Deans.  
(w.e.f. 27.3.22)  
(Mob-9897628097)
31. -do-  
(Mob-9897269797)
32. -do-  
(M-9412442881)
33. -do-  
(From 27.12.2013)  
(Mob-9557604249)
34. -do-  
(Mob-9456021345)
35. -do-  
(Mob-7895599082)
36. -do-  
(Mob-9665623994)
- Dayalbagh Educational Institute  
Dayalbagh, Agra-282 005
- Prof. Gunjan Agrawal,  
Head,  
Deptt. of Mathematics  
Faculty of Science  
Dayalbagh Educational Institute  
Dayalbagh, Agra-282 005
- Prof. Sangeeta Kumar  
Head, Deptt. of Economics  
Faculty of Social Sciences  
Dayalbagh Educational Institute  
Dayalbagh, Agra-282 005
- Prof. Sanjeev Swami  
Head, Deptt. of Management  
Faculty of Social Sciences  
Dayalbagh Educational Institute  
Dayalbagh, Agra-282 005
- Prof. Kamaljeet Sandhu  
Head, Deptt. of Psychology  
Faculty of Social Sciences  
Dayalbagh Educational Institute  
Dayalbagh, Agra-282 005
- Ms. Mallica Caprihan  
Head/Coordinator,  
School of Architecture & Planning  
Dayalbagh Educational Institute  
Dayalbagh, Agra-282 005
- Dr. Prashant Suresh Chavan  
Principal, AYUSH  
Dayalbagh Educational Institute  
Dayalbagh, Agra-282 005

**RULE:13****Page-6**

**ACADEMIC COUNCIL - LIST OF MEMBERS (Contd.)**  
**TERM:2020-2023 Total Members : 58 Quorum: Ten (As on July-2022)**

37. (d) 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: 2022-23)  
 (Mob-9456054897)
- Dr. Suman Sharma  
 Department of Hindi  
 Faculty of Arts  
 Dayalbagh Educational Institute  
 Dayalbagh, Agra-282 005
38. -do-  
 (Term- One year: 2022-23)  
 (M-9997306400)
- Prof. Swami Prasad  
 Dept. of Applied Business Economics  
 Faculty of Commerce  
 Dayalbagh Educational Institute  
 Dayalbagh, Agra-282 005
39. -do-  
 (Term- One year: 2022-23)  
 (M-9412535105)
- Prof. Mukesh Kumar Gautam  
 Faculty of Education  
 Dayalbagh Educational Institute  
 Dayalbagh, Agra-282 005
40. -do-  
 (Term- One year: 2022-23)  
 (M-9557461144)
- Shri Gaurav Pratap Rana  
 Dept. of Deptt. Elect. Engineering  
 Faculty of Engineering  
 Dayalbagh Educational Institute  
 Dayalbagh, Agra-282 005
41. -do-  
 (Term- One year: 2022-23)  
 (M-9412456003)
- Prof. Sandeep Paul  
 Dept. of Physics & Computer Science  
 Faculty of Science  
 Dayalbagh Educational Institute  
 Dayalbagh, Agra-282 005
42. -do-  
 (Term- One year: 2022-23)  
 (M-9917717913)
- Dr. Archana Satsangi  
 Department of Psychology  
 Faculty of Social Sciences  
 Dayalbagh Educational Institute  
 Dayalbagh, Agra-282 005

- (e) 43. *The Coordinator*  
Distance Education Cell  
(M-9219500838)
- Prof. V.B. Gupta  
Distance Education Cell  
Dayalbagh Educational Institute  
Dayalbagh, Agra-282 005

**RULE:13** **Page-7**

**ACADEMIC COUNCIL - LIST OF MEMBERS (Contd.)**

**Term: 2020-2023    Total    Members:58 Quorum: Ten (As on 1.7.2022)**

- (f) 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: snppschoo@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

50. -do-  
7830507157 (Mob.)  
9286542683 (Mob.)
- Soami Nagar Model School (Primary)  
Soami Nagar (North)  
NEW DELHI-110 017
- Principal  
Roorkee Model School  
23B, Dayalbagh Colony  
Ganeshpur (Near Railway Station)  
ROORKEE-247 667

**RULE: 13**

**ACADEMIC COUNCIL LIST OF MEMBERS (Contd.)** **Page-8**  
**2020-2023 TOTAL MEMBERS : 58 Quorum: Ten (As on 1-7-2022)**

- (g) 51. The Director of Technical Education, Uttar Pradesh  
(Ex-officio)  
0512-2582084 (O)
- The 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-9(a) dated 17-3-2020)  
Tel:(M) 9810212311  
[rajiosinha@gmail.com](mailto:rajiosinha@gmail.com)
- Shri Rajiv Sinha  
A-14/14, Vasant Vihar  
New Delhi-110 057
53. -do-  
Phone +91-11-22751573  
email: [prempsri@gmail.com](mailto: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-9 (b) dated 17-3-2020)
- Professor P. Sriramamurti  
4/112, Vidyut Nagar  
Dayalbagh, Agra-282 005

Professor Pami Dua

55.                                -do-                                C-58, Soami Nagar  
NEW DELHI-110 017  
  
Mob. 9810153341  
pami.dua@gmail.com
56.                                -do-                                Professor Hazur Saran  
Department of Computer Science  
& Engineering  
Indian Institute of Technology, Delhi  
Hauz Khas, New Delhi- 110 016  
  
(w.e.f. 2.11.2019)  
Email: saran@cse.iitd.ac.in
57.                                -do-                                Prof. Jamuna Prasad  
117, Jairam Bagh  
Dayalbagh, Agra  
  
(M-9997958655)
58.                                -do-                                Professor P.K. Kalra  
Department of Computer Science  
Indian Institute of Technology  
Hauz Khas  
New Delhi-110016  
  
[pkalra@cse.iitd.ac.in](mailto:pkalra@cse.iitd.ac.in)  
mob. 9452831015  
(pkkiitd@gmail.com)
-