SECOND RESEARCH SCHOOL ON DYNAMIC SUSTAINABLE SOLUTIONS APRIL - JUNE 2024



Introduction

Sustainable development and sustainability are inherently multi-disciplinary because they concern a complex system having economic, technological, ecological, political, and other perspectives. Sustainability is enabled by technological advances but is a social construct and needs to be economically viable.



International Center for Applied Systems Science for Sustainable Development



Therefore, there is a need to take the discussion on sustainability and sustainable development beyond its traditional and confined limits within the academic disciplines of engineering, technology, economics or geography or political science and analyse the problems through a multidisciplinary and trans-disciplinary approach, and holistic, integrative, and critical thinking.

International Centre for Applied Systems Science and Sustainable Development (ICASSSD) is pleased to announce its second research school on **'Dynamic Sustainable Solutions'**.

Objectives

1. Co-Author a research paper at the end of the school

2. Discuss, debate and research Sustainable Solutions in multi-disciplinary teams

3. Learn from researchers, faculty and industry leaders

Outcome

A research paper on an identified theme in the area of their interest.

FORMAT OF THE SCHOOL: ONLINE

SCHEDULE OF THE SCHOOL

APR 20, 2024

Opening Workshop: Panel Discussion on Dynamic Sustainable Solutions for Next Century

APR 27, 2024

Technical Session 1: Introduction to Research & Research Process **Discussion Session 1:** Identification of Topics for Research

MAY 4, 2024

Technical Session 2: Research Ethics **Discussion Session 2:** Preparation of Research Proposal

MAY 11, 2024

Technical Session 3: Principles of Sustainability and Sustainable Development

Discussion Session 3: Group Work on Research Paper

MAY 18, 2024

Technical Session 4: Systems Thinking Discussion Session 4: Progress Presentations

MAY 25, 2024

Technical Session 5: Al for Sustainability **Discussion Session 5:** Group Work on Research paper

JUN 1, 2024

Discussion Session 6: Group Work on Research Paper

JUN 8, 2024

Discussion Session 7: Group Work on Research Paper

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JUNE 15, 2024

Finalization of Research Paper

JUN 22, 2024 Final Workshop: Presentation of Final Papers

WEEKLY SESSIONS ON WEEKENDS FROM 10AM-12 NOON EST

Some examples of themes/ topics that students may work on

- Agroecology and Sustainable Food Systems
- Green Engineering
- Greenhouse Gas Emissions
- Circular Economy and Corporate
 Sustainability
- Socioeconomic Aspects of Sustainable Development
- Al for Sustainability

To Apply - https://forms.gle/d7aN7gDu3HLiH3Bz8

Who should attend?

Young researchers in applied sciences, environment, economics, management, sustainability, and technology.

There are No Fees for participants.



Last Date of Registration: March 10th 2024



The benefit of Attending the Research School

- Research papers which will be published in a compendium at the end of the school. Students may send their work for publication to reputed journals with proper acknowledgement and co-authorship to mentors from ICASSSD.
- Certificate of Participation for all researchers
- Reference Letter and Volunteer Hours on request.
- Opportunity to work in multi-disciplinary groups and look at problems in a holistic manner.
- Opportunity to work with researchers, faculty and industry leaders.
- Future Summer Job Opportunities with ICASSSD

About ICASSSD

ICASSSD is a not-for-profit International Research Organization headquartered in the Kitchener-Waterloo Region in Canada (the Silicon Valley of Canada). It conducts and utilizes research in the broad multi-disciplinary domains of sustainability and applied systems. The outcomes of research endeavours are practical impacts on communities worldwide. ICASSSD actively fosters and supports the coop mode of education and entrepreneurial curiosity-driven learning.



ICASSSD International Center for Applied Systems Science for Sustainable Development

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Glimpses of Inaugural and Closing Ceremony of the First Research School





Power of Mathematical Modeling and System Approach

Karmeshu Distinguished Professor, SOCS Director, Center for Stochastic Modeling and Simulation, UPES Chairman, Scientific Computing Panel, Naval Research Boar >Prof. (Retd.) School of Computer & Systems Scieno Jawaharlal Nehru University, New Delhi



As an undergraduate student pursuing a degree in Computer Science, I appreciated this chance as it enabled me to bridge the gap between theoretical knowledge gained in the classroom and practical research applicable in real-world scenarios. This experience deepened my understanding of implementing machine learning models and provided me with the opportunity to collaborate with individuals from diverse backgrounds.

-Surya Mehar Vedula (University of California, Berkeley, California, USA) I engaged in research using advanced methodologies, collaborated with peers from diverse global backgrounds to gain fresh perspectives, and benefited from the guidance of dedicated mentors who are experts in their respective fields, fostering a supportive learning environment.

-Chetanroop Patel (AICE Cambridge Candidate, Florida, USA)

As an undergraduate, the prospect of contributing to a published paper seemed beyond reach, but this experience made it a reality. I wholeheartedly endorse this program and encourage anyone who comes across it to seriously consider applying.

-Agam Prakash (Dayalbagh Educational Institute, Agra, India)