Indian Institute of Technology Indore

Department of Mathematics

organizes a

7-day High-End Workshop on

Statistical Modelling in Ranking and Selection

Dates: January 18 - 24, 2024

Sponsored by SERB under KARYASHALA scheme

About IIT Indore

IIT Indore, located in Madhya Pradesh, is an institute of national importance established by the Government of India in 2009. IIT Indore has positioned itself as a vibrant centre for outstanding research and teaching. Multidisciplinary research at IIT Indore has been recognized internationally with active participation in several international projects and collaborations with foreign institutions. IIT Indore's dynamic campus, cultural diversity, and the notable achievements of its alumni further contribute to its status as a hub for excellence in education and innovation.

About the Department

The inception of the Department of Mathematics dates back to 2009, marking the commencement of its journey. Presently, the department offers M.Sc. and Ph.D. programs in Mathematics, and B.Tech. in Mathematics & Computing. In addition to these programs, the department teaches several Mathematics courses to the undergraduate and postgraduate students of various engineering and science departments. The department is committed to providing a comprehensive curriculum at both undergraduate and postgraduate levels, fostering relevant research, and offering career opportunities in India and abroad. Currently, the department actively implements various pivotal projects generously funded by national and international agencies. The well-appointed Bhaskaracharya Mathematics Laboratory, supported by DST, and the resourceful Brahmagupta Library play pivotal roles in enhancing the teaching and learning experience.
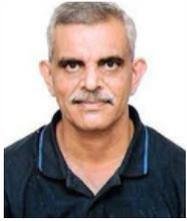
About the Workshop

The KARYASHALA scheme, initiated by SERB, Govt. of India, is to enhance skill development training on emerging topics essential for scientific research. This workshop is specifically tailored for PG and Ph.D. students from universities and colleges seeking a comprehensive understanding of statistical methodologies in the realm of ranking and selection. The workshop will cover a diverse range of topics, from fundamental concepts to specialized applications essential for advanced statistical modelling. Additionally, it will serve as a foundational course for individuals interested in pursuing careers in the data science and machine learning fields. The workshop aims to bridge the gap between theoretical knowledge and practical application by incorporating hands-on sessions using R-programming and MATLAB.

Course Content

- Descriptive Statistics: Data Collection, Handling and Graphical Presentation; Various Descriptive Measures
- Probability Distributions: Standard Discrete and Continuous Distributions
- Estimation Techniques
- Hypothesis Testing, ANOVA Techniques
- Design of Experiments
- Regression Analysis
- Ranking and Selection Problems
- Adaptive Designs in Ranking and Selection Problems
- Estimation After Selection Problems
- Learning to Rank
- Markov Process and Stationary Distributions
- Frequent Pattern Mining
- Support Vector Machines and Applications
- Hands-on Tutorial on R-programming and MATLAB

Speakers

Prof. Neeraj Misra
IIT Kanpur

Prof. Somesh Kumar
IIT Kharagpur

Dr. Amit Kumar Misra
BBAU Lucknow

Dr. Arnab Koley
IIM Indore

Dr. M. Tanveer
IIT Indore

Dr. Ranveer Singh
IIT Indore

Dr. Nagendra Kumar
IIT Indore

Dr. Aniruddha Singh Kushwaha
IIT Indore

Dr. Mohd. Arshad
IIT Indore

Registration Guidelines

- The maximum number of participants is limited to **20**.
- **Eligibility:** PG and Ph.D. students.
- **Travel Support:** Students selected for this workshop will be offered travel support (3rd AC Train) for their journey to and from IIT Indore, as per SERB and GoI norms.
- **Accommodation and Food:** Free accommodation and food will be provided to all the selected students for the entire workshop duration.
- During registration, the candidate must upload an **NOC** letter duly signed by the competent authority.
- Based on the screening, selected candidates will be informed through email, by 25th December 2023.

Online Registration Link: Click here

Application Deadline: 20th December, 2023

Registration Fee: Rs 2000/- **(Only for the selected students to confirm his/her seat after screening)**

Format for NOC

To,   Date _____
   Dr. Mohd. Arshad
   Workshop Coordinator

This letter is to certify that [Student's Full Name], a PG student/Ph.D. scholar of [School/Institution Name], has sought permission to attend the **7-day High-End workshop on Statistical Modelling in Ranking and Selection**, which is scheduled to take place during **January 18 - 24, 2024 at IIT Indore.**

We hereby confirm that we have no objection to the applicant attending the workshop and encourage his/her participation in such educational events that can further enhance knowledge and skills.

Name and Signature of the applicant:
Date and Place:

Recommended and forwarded by

Name and Signature of the Head of the Department / Head of the Institution with seal

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For any queries, feel free to contact us on smsrgiiti@gmail.com

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Coordinator: Dr. Mohd. Arshad

✉ arshad@iiti.ac.in

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📍 Simrol, Indore, Madhya Pradesh - 453 552

🌐 Profile link

Volunteers

Shubham
Ishita
Leela
Akshay

Tutors

Swaroop Georgy Zachariah
Mushir Akhtar