



Electronics & ICT Academy IIT Roorkee



An Initiative of
**Ministry of Electronics
& Information
Technology (MeitY)**
Government of India

A Faculty Development Program

on

Advanced Data Analytics

April 14 – April 18, 2025

Register Before: April 14, 2025

Hybrid Mode

Venue: ECE Department, IIT Roorkee



Why this course ?

In today's data-driven world, organizations rely on data analytics for informed decision-making. This course provides a comprehensive understanding of data analytics techniques and state-of-the-art tools, focusing on applications in domains like Natural Language Understanding, Computer Vision, and Cryptocurrencies. Participants will benefit from hands-on sessions, gaining practical experience to solve real-world problems effectively, making this course a valuable opportunity for both academia and industry professionals.

Prerequisites

No experience is required, but fundamental knowledge of any programming language would be helpful.

Objectives of the course

- Build a strong foundation in mathematical principles for data analytics.
- Learn various data analytics techniques and methodologies.
- Understand applications in key domains, including NLP, Computer Vision, and Social Networks.
- Explore cutting-edge tools for advanced data analytics.
- Gain hands-on experience in applying data analytics techniques to real-world problems.
- Foster a deeper understanding of pedagogy in teaching data analytics concepts.

Focus Areas

- Mathematical Foundations for Data Analytics
- Data Analytics for Computer Vision and Natural Language Understanding
- Reinforcement Learning in Multi-Agent Systems
- Social Network and Cryptocurrency Data Analytics
- Large Language Models and their Applications in Data Analytics
- Hands-on Training with Advanced Data Analytics Tools

Course Features

- 40 Hours of Lectures, hands-on, and Pedagogy/Industry sessions.
- Lectures from Expert Speakers, Hands-on from industry/Academia experts.
- Access to learning material and video lectures
- Certificate by E&ICT Academy IIT Roorkee

Course Outcomes

Participants are likely to:

- Mastery of foundational mathematical concepts in data analytics.
- Proficiency in applying analytics techniques across diverse domains.
- Familiarity with state-of-the-art tools and technologies.
- Practical experience through hands-on sessions and case studies.
- Enhanced understanding of reinforcement learning and multi-agent systems.
- Insight into advanced topics such as Social Network Analytics and Cryptocurrencies.
- Preparedness for teaching or implementing data analytics in professional settings.



Experts from Academia/Industry

Who Should Register?

Any Interested Faculty/PhD-Scholars
UG/PG/ & Industry Persons can register

Registration Fee

Fees: ₹ 250/- Faculty/Research Scholar/
Students

₹ 500/- Industry/Others

Note: Refund will be done in case of course
cancellation only, within 20 working days

FDP Kits & Refreshment will be provided

How to make Payment

Please make the payment first using the below link
upload the payment receipt when filling out the
Google registration form

<https://eict.iitr.ac.in/instruction-for-payment/>

Conference Code: EICTIITR-FDP-25-15

Registration Link

<https://forms.gle/zM21AyQjfG8z7tWS7>



Scan QR for
registration

Register before:
Mar 29, 2025

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Who may benefit

- Academic Faculty and Students(UG/PG)
- Government Officials.
- Working Professionals in the Industry and Startups.
- Research Scientists and Technical Staff.



This certificate can be considered in
alignment with other Quality Improvement
Programs (QIP) as well as NBA and NAAC for
recognition/credit.

Principal Investigator

Prof. Sanjeev Manhas
ECE Department, IIT Roorkee

Course Coordinators

- Prof. Sanjeev Manhas, IIT Roorkee
- Dr. Suman Banerjee, Department of CSE, IIT Jammu

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