



## 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

In association with

### IIT Jammu

Mar 03 – Mar 07, 2025

Register Before: Mar 01, 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, with in 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 01, 2025

Click to follow us on:



## Who may benefits

- Academic Faculty and Students(UG/PG)
- Government Officials.
- Working Professionals in the Industry and Startups.
- Reasearch 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

### Reach Us:

📞 M.No.: 8112766397

📞 Landline No.: +91-1332286457

✉️ Email: [eict@iitr.ac.in](mailto:eict@iitr.ac.in)