Organized by **Electronics & ICT Academy**



MNIT Jaipur http://www.mnit.ac.in/eict

Online Programme

Advance Programming using Python

10th - 20th November, 2025

Faculty Development Programme

Electronics & ICT Academy under aegis of



meity.gov.in/content/schemes-projects

Chairman, EICT Academy & **Director MNIT Jaipur**

Prof. Narayana Prasad Padhy

Chief Investigator, EICT Academy Prof. Vineet Sahula, ECE

Coordinator, EICT Academy Dr. Satyasai Jagannath Nanda, ECE

Co- Chief Investigators, EICT Academy Prof. Lava Bhargava, ECE Prof. Pilli Emmanuel Shubhakar, CSE Dr. Ravi Kumar Maddila, ECE

Objective (Electronics & ICT Academy-Phase II)

- conduct specialized FDPs faculty/mentor training in line with the vision of MeitY by promoting emerging areas of technology and other high-priority areas that are pillars of both the "Make in India" and the "Digital India" programs.

 2) To promote synergy and collaboration with
- industry, academia, universities and other institutions of learning, especially emerging technology areas.
- 3) To support the National Policy on Electronics 2019 (NPE 2019) envisions positioning India as a global hub sector, ESDM including Schemes/policies such as Programme for Semiconductors Display and Ecosystem; India AI; National Programme on Al, Production Linked Incentive Scheme for IT Hardware & Large-Scale Electronics Manufacturing; EMC; SPECS; Chips to System (C2S); etc.
- To promote standardization of FDPs through Joint Faculty Development Programmes.
- 5) To support the vision of the National Education Policy (NEP 2020), which mandates that Indian educators go through at least 50 hours in professional development programmes per year.
- 6) To design, develop & deliver specialised FDPs on emerging technologies/ niche areas/ specialised modules for specific research areas for Faculty in Higher Education Institutions (HEI), besides FDPs on multi-disciplinary areas connected with ICT tools and technologies and other digital hybrid domains, covering a wide spectrum non-engineering engineering and colleges, polytechnics, PGŤ ITIs, and educators.

In an era where Python drives innovation across Al. data science, and automation. mastering it has become essential for every educator and researcher. This focused intensive 40-hour Faculty Development Programme on Python Programming offers a structured journey from the fundamentals of Python to advanced workflows integrating AI tools. Designed for faculty, researchers, and technical professionals, it covers Python foundations, data structures, libraries, model development, and generative workflows using ChatGPT. Through conceptual discussions and intensive hands-on coding sessions, participants will gain practical expertise to teach, apply, and innovate with Python in academic and research environments.

This FDP will be conducted in online mode starting from November 10 to November 20, 2025 (4 hours/day; excluding Sundays and holidays).

Experts/Speakers-

- 1) Dr. Dinesh Kumar Tyagi, CSE, MNIT Jaipur
- 2) Dr. Santosh Kumar Vipparthi, IIT Ropar
- 3) Dr. Ramesh B Battula, CSE, MNIT Jaipur
- Dr. Arka Prokash Majumdar, CSE, MNIT Jaipur
- 5) Dr. Mahipal Jadeja, CSE, MNIT Jaipur
- 6) Dr. Satyendra Singh Chouhan, CSE, MNIT Jaipur
- *Other Experts from Top Industries and Academia

Programme Modules:

Module 1: Foundation of Python: Fundamentals of Python basics, Python Installation & Implementation, Decision control Structure, Loop Control structure; Functions & its types: Built-in & User defined function

Module 2: Basic Python Data Structures: Lists, Dictionaries, Tuples, Sets, String: their built-in functions & manipulation operations, indexing & slicing, List comprehension, File Handling, Error and Exception Handling

Module 3: Advanced Python Concepts: Iterators, Decorators, Generators, Modules, Package, Library: introduction & creation of Packages & Library, OOP concepts: classes and objects, basics of Tkinter GUI module

Module 4: Advanced Data Processing & Model Development using Python: Exploratory Data Analysis: Arrays, NumPy, Pandas, Matplotlib, Seaborn; Artificial Neural Networks (ANN), Machine Learning (ML) and Deep Learning (DL) implementations in Python & building own models

Module 5: Advanced workflows from Prompt to Application: Integrating Generative AI (GenAI) with advanced Python, Basics of ChatGPT & Prompt Engineering, Advanced AI learning tools for Python

Principal Coordinator:

Dr. Dinesh Kumar Tyagi

fdp.academy@mnit.ac.in

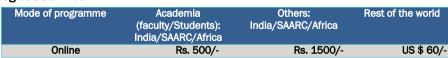
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Registration:

Registration is open to faculty, working professionals, industry persons, doctoral, postgraduate and graduate students. Participants will be admitted on first-come first-served basis.

Register online at- http://online.mnit.ac.in/eict/

Registration Fee:



- (A) Fee once paid will not be refunded back.
- (B) The fee covers online participation in the programme, tutorial notes and examination, certification charges.
- (C) The organizers should receive the registration amount through online mode- NEFT/UPI provided at the registration portal.
- (D) Detailed schedule will be shared after receiving registration form.
 - → For any other query, email us at fdp.academy@mnit.ac.in

MNIT Jaipur one of the oldest NITs, the institute has a rich heritage of sixty years producing world class engineers, managers, architects and scientists. Ranked 42 nationally in the NIRF ranking-2024 (Engineering), the institute offers learning opportunities for undergraduate, postgraduate students, and researchers in various domains. Having a lush green campus of over 317 acres within the heart of the pink city, close to Jaipur International Airport, the campus offers a safe and lively environment. A world class teaching infrastructure, state-of-art laboratories welcome you at the campus. The institute has a vision to impart education of international standards and conduct research at the cutting edge of technology.