Organized by
Electronics & ICT Academy

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

Online Programme
on
Advanced Programming in Python

22nd July – 1st August 2026
(3:00PM - 7:00PM)

Faculty Development Programme
Electronics & ICT Academy under aegis of

Ministry of Electronics and Information Technology
Government of India

meity.gov.in/content/schemes-projects

Chairman, EICT Academy & Director MNIT Jaipur
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Objective (Electronics & ICT Academy-Phase II)

1) To conduct specialized FDPs for 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 in emerging technology areas.
3) To support the National Policy on Electronics 2019 (NPE 2019) which envisions positioning India as a global hub for ESDM sector, including MeitY Schemes/policies such as Programme for Semiconductors and Display Fab Ecosystem; India AI; National Programme on AI, Production Linked Incentive Scheme for IT Hardware & Large-Scale Electronics Manufacturing; EMC; SPECS; Chips to System (C2S); etc.
4) 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 of engineering and non-engineering colleges, polytechnics, ITIs, and PGT educators.

In an era where Python drives innovation across AI, data science, and automation, mastering it has become essential for every educator and researcher. This focused intensive 40-hour is designed to provide a systematic progression from the fundamentals of Python programming to advance programming paradigms and development workflows and seamlessly connecting core concepts with emerging technologies and real-world applications. Designed specifically for faculty, researchers, and technical professionals, it covers Python foundations, data structures, libraries, packages, AI/ML and Deep Learning, GUI module, advanced data analytics, automation, software development and Prompting tools for programming. Through conceptual discussions paired with hands-on coding sessions; participants will gain the robust practical expertise required to effectively teach, apply, and innovate with Python in cutting-edge academic, data driven computing, AI-enabled solutions and research environments.

This FDP will be conducted in online mode starting from July 22 to August 1, 2026 (4 hours/day: 3:00PM-7:00PM; *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
4) 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 and Environment Setup, Decision control Structure, Loop Control structure ; Functions and its types: Built-in & User defined function
Module 2: Python Data Structures: Lists, Dictionaries, Tuples, Sets, String: their built-in functions & manipulation operations, Indexing and Slicing, List comprehension, File Handling, Error and Exception Handling
Module 3: Advanced Python Concepts: Iterators, Decorators, Generators, Modules, Package, Library: Creation of Modules, Packages & Library, Object Oriented Programming (OOP) Concepts: Classes and Objects; Tkinter GUI module
Module 4: Advanced Data Analytics & Model Development: Exploratory Data Analysis Visualization:Arrays,NumPy,Pandas,Matplotlib, Seaborn,Plotly;Artificial Neural Network Machine Learning, Deep Learning and Collaborative Federated Learning: Implementation and building models in Python; Python Libraries: **Streamlit** and **Pydantic** framework
Module 5: Advanced workflows from Prompt to Application: Integrating Generative AI (GenAI) with advanced Python, Prompt Engineering for Programming, Advanced AI learning tools for Educators, Advanced python based end to end Project making capstone

Principal Coordinator:

Dr. Dinesh Kumar Tyagi fdp.academy@mnit.ac.in 9549658130 (M)

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:

Mode of programme	Academia (faculty/Students): India/SAARC/Africa	Others: India/SAARC/Africa	Rest of the world
Online	Rs. 750 +GST	Rs. 1500 +GST	US $ 60 +GST

(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-2025 (Engineering), 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 campus. The institute has a vision to impart education of international standards and conduct research at the cutting edge of technology