



Online FDP on Advanced Optimization Techniques using MATLAB

17th – 28th February 2025



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.

An intensive 40 Hour Faculty Development Programme in Online mode is being organized for faculty of engineering and technological institutions. It is also open to persons from industry and doctoral students of Indian organizations. The main theme of training program will be oriented around exploring the state of the art methods for Advanced Optimization Techniques. **This program will run for 4 PM-8 PM Daily.**

Experts/Speakers-

- 1) Prof. Narayana P. Padhy, Director, MNIT Jaipur (Professor, IIT Roorkee)
 - 2) Prof. Ganapati Panda, Former Dy. Director, IIT Bhubaneswar and present Research-Director C.V. Raman Global University, Odisha
 - 3) Prof. Bijay Ketan Panigrahi, Dept. of Electrical Engineering, IIT Delhi
 - 4) Prof. Swagatam Das, Electronics & Comm. Unit, ISI Kolkata
 - 5) Prof. Kusum Deep, Emeritus Professor, Dept. of Mathematics, IIT Roorkee
 - 6) Prof. Nithin V. George, Dept. of Electrical Engineering, IIT Gandhinagar
 - 7) Prof. Rajesh Kumar, Dept. of Health Science, Univ. of Johannesburg, SA
 - 8) Dr. Pyari M. Pradhan, Dept. of Electronics & Comm., IIT Roorkee
 - 9) Dr. Sriparna Saha, Dept. of Computer Science and Engineering, IIT Patna
 - 10) Dr. Jagdish C. Bansal, Dept. of Math., South Asian University, New Delhi
- Other Experts from EICT academies and, other reputed Institutes & Universities.

Programme Modules:

Module 1: Fundamental of Optimization: Classical Optimization techniques, Linear programming, Constrained Optimization, Linear and Nonlinear Optimization, Open problems.

Module 2: Nature Inspired Optimization: Genetic Algorithms, Particle Swarm Optimization, Ant Colony Optimization, Artificial Bee Colony and Other nature inspired Algorithms, Comparing Nature Inspired Optimizers.

Module 3: Multi & Many Objective Optimization (MOO): Nondominated Sorted Genetic Algorithm NSGA-II & NSGA-III, MOO for Clustering, Cognitive Radio, Sensor Networks, Multi task Optimization, Dynamic Optimization.

Module 4: Real Life Applications: Wireless Sensor Network, Nonlinear System Identification, Data Clustering, Active Noise Control, Bio informatics, Signal Processing, Hyperspectral Image Processing, Many Other Applications

Simulation/ Labrotary : MATLAB Platform

Programme Coordinator:

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Registration:

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

Register on line at - <https://online.mnit.ac.in/eict/>

Certification Fee: Academic (Faculty/Students): Rs. 500/-

Working professionals, Industry/ Others: Rs. 1500/-

(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 payment gateway 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 , 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 43rd 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.