



ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON Advanced Meta-heuristic Optimization Techniques for Engineering Applications

(21st April – 30th April 2025)

Organized by

Electronics & ICT Academy, NIT Warangal

(Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI)

Preamble:

"Electronics & ICT Academy – Phase II" was set up at NIT Warangal with financial assistance from MeitY, GoI. This academy's role is to offer Faculty Development Programmes in standardized courses and emerging areas of Electronics, Information Communication Technologies, training & consultancy services for Industry, Curriculum development for Industry, CEP for working professionals, Advice and support for technical incubation and entrepreneurial activities.

About the FDP:

This Faculty Development Program (FDP) addresses the growing complexity of engineering challenges by exploring the power of meta-heuristic optimization algorithms. It brings together academic and industry researchers to share knowledge on cutting-edge techniques and their real-world applications across various engineering domains. The program includes interactive sessions on methodologies and practical applications, fostering a collaborative environment for knowledge exchange. Through in-depth MATLAB training and hands-on experience, participants will learn to design optimized solutions for complex engineering problems. The 10-day program will equip participants with a strong understanding of simulation principles and optimization procedures within the context of these advanced algorithms.

Major Course Content:

- Introduction to Optimization Techniques
- Various Classifications of Optimization Techniques.
- Conventional Optimization Approach.
- Introduction to Soft computing /Evolutionary/meta-heuristic (Numerical and Optimization) Algorithms.
- Advanced topics in meta-heuristic optimization.
- Genetic, PSO, DE: Concepts and Applications.
- Hybridization of Meta-Heuristic algorithms.
- Cat Swarm, JAYA and TLBO Optimization Algorithms.
- Applications of the metaheuristic Algorithms in various engineering Algorithms.
- Hands on Workshop and Case Studies.

Faculty conducting this programme:

The programme will be conducted by the faculty members from NIT Warangal; Academicians in the concerned field from IITs/NITs/IIITs are invited to deliver lectures in the programme. Speakers from industries are also expected to deliver as part of the course.

Registration Fee Particulars:

Faculty and Research Scholars	Rs.750/-
Industry Participants	Rs.2250/-

Participants need to pay the Registration Fee Online using the following details

Online Transfer Details	
Account Name :	Electronics & ICT Academy NITW
Account No	62423775910
IFSC	: SBIN0020149
Bank and Branch:	State Bank of India, NIT(REC) Warangal

How to apply:

Participants are required to fill the online registration form by clicking on the following link:

<https://forms.gle/PttGyYc6YMzsE9yz8>

Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 50 (fifty). Candidates will be issued satisfactory certificates on successful completion of the course.

Important Dates:

Last date (Application)	18.04.2025
Selection List by E- mail	19.04.2025
Duration	21.04.2025 to 30.04.2025

About NIT Warangal:

National Institute of Technology, Warangal, is the first among 17 RECs set up as a joint venture of the Government of India and the state government. Over the years, the college has established itself as a premier Institute imparting technical education of a very high standard, leading to B.Tech degrees in various branches of engineering, M.Tech., and Ph.D. programmes in various specializations. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

Coordinators

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