

ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)

on

Optimization Techniques using ML for Engineering Discipline

(18th July- 27th July 2022)

Organized By

E & ICT Academy & Department of Computer Science & Engineering,
NIT Warangal

In Association With

Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad

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



Preamble: Electronics & ICT Academy was set up at NIT Warangal with financial assistance from MeitY, GoI. The role of academy is to offer faculty development programme in 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. This FDP is designed to address research advancements in Computer Science and Engineering and its applications. To encourage various zonal professionals/ students/ academicians towards research and for their Academic Quality Improvement too. This course will offer a unique opportunity to all the participants in Real Time through theoretical, laboratory-based sessions and demonstrations. An optimization algorithm is a procedure which is executed iteratively by comparing various solutions till an optimum or a satisfactory solution is found. With the advent of computers, optimization has become a part of computer-aided design activities. There are perhaps hundreds of popular optimization algorithms, and perhaps tens of algorithms to choose from in popular scientific code libraries. This can make it challenging to know which algorithms to consider for a given optimization problem, This FDP aims at giving scope for future research.

Objectives: FDP aims at giving scope for future research.

- Introduction to Machine Learning
- Conventional Methods used for Optimization
- Linear and Non Linear Programming
- Genetic Algorithms
- Grey Wolf Optimization and Applications
- PSO Algorithm and Applications
- Jaya Optimization and Applications
- Bat Optimization Algorithm
- Artificial bee Colony
- Ant Colony Optimization
- Spotted Hyena Optimization
- Spiral Optimization
- Shuffled Frog-leaping Algorithm

Hands on sessions on the above topics will be provided

Registration Fee Particulars:

Faculty and Research Scholars	₹ 750 /-
Industry Participants	₹ 2250/-

Participants are required pay the Registration Fee Online using the following NEFT transfer details:

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

Resource Persons: Eminent Researchers & Faculty from International Universities, IITs, NITs, IIITs & Industry experts.

Eligibility: Faculty/Ph.D. scholars of Information Technology/ Computer Science & Engineering/allied disciplines & Industry Personnel

How to apply: Participants are required to apply through online registration form by clicking on the following link:

Registration Link: <https://forms.gle/tARs4ggiZpD66FA9>

Selection Criteria:

Selection will be done based on first - come-first-serve basis to a maximum number of 100 (hundred). The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the Online/DD payment will be returned. Candidates will be issued satisfactory certificates on successful completion of the course. Reservations are followed for selecting candidates as per GoI norms.

Important dates:

Last date for Application with fee: 15th July 2022

Selection List by Email: 16th July 2022.

FDP Duration: 18th July to 27th July 2022.

About NITW, CSE Department, Warangal:

NIT Warangal, formerly known as Regional Engineering College was established in 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 14 Departments offering eight undergraduate and 32 post - graduate programs besides doctoral programs. About 5000 students across the country and about 500 international students' study on the campus. Its R & D activities have gained momentum with funding/ MoU from governmental agencies/ industries.

The Department of Computer Science & Engineering

The Department of Computer Science & Engineering was established in the year 1991. The department offers high quality undergraduate, postgraduate and doctoral programs. The B. Tech (Computer Science and Engineering) program was started in the year 1983 with an intake of 20 students. The intake was subsequently increased to 120 in 2008. M. Tech (Computer Science and Engineering) program was started in 1987 with an intake of 18 and subsequently increased to 20 in 2008.

About GRIET, IT Department, Hyderabad:

GRIET is a premier institute of engineering, established in the year 1997 under the patronage of the Gokaraju Rangaraju Educational Society. The college is approved by AICTE and is affiliated to JNTUH, Hyderabad. It has been given autonomous status by UGC. All eligible UG and PG e programs are accredited by NBA under Tier-I. The Institute is accredited by NAAC with A++ grade. The mission of GRIET is to achieve and impart quality education with an emphasis on practical skills and social relevance. GRIET strives to provide state-of-art infrastructure.

The Department of Information Technology

Information Technology Department started in the year 1999. It offers B.Tech (IT) and M. Tech (Data Science). The Department has well-equipped laboratories. It focuses on practical applications in the field of Data Mining and Machine Learning. The B.Tech (IT) programme is accredited by NBA in 2006, 2009, 2014 and 2019. In addition to quality teaching, students are exposed to certification courses and workshops along with personality development programs.

Coordinators:

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