

**Global Online FDP on Advanced Optimization Techniques and Hands-on with MATLAB/SCILAB**

**Time Table**

**Date :6th Sept to 17th Sept 2021**

Date	Session I (4PM-5PM)		Session II (5.15PM-6.15PM)	Session II (6.30PM-7.30PM)	Session III(7.40PM-8.40PM)
6-09-2021 (Monday)	4PM-4.15 PM	4.15PM-5.15PM	Module II : Prof. B. K. Panigrahi	Module I : Dr. S. J. Nanda	Lab I : Dr. Prashant K. Jain
	Introduction	Module I : Prof. G. Panda	Particle Swarm Optimization (PSO) and Its Variants	Fundamentals of Classical Optimization Techniques	Introduction to MATLAB for Optimization Techniques
	Introduction to Nature Inspired Optimization & Genetic Algorithms				
7-09-2021 (Tuesday)	Module II : Prof. G. Panda		Module II : Dr. J. C. Bansal	Module I : Dr. Anil Kumar	Lab II : Dr. S. J. Nanda
	Ant Colony Optimization		Artificial Bee Colony	Linear Optimization and its Application in Multi-rate Signal Processing	MATLAB for Binary Genetic Algorithm
8-09-2021 (Wednesday)	Module II : Prof. Rajesh Kumar		Module II : Dr. J. C. Bansal	Module II : Dr. ILA Sharma	Lab III : Dr. S. J. Nanda
	Differential Evolution (DE)		Spider Monkey Optimization	Cuckoo Search	MATLAB for PSO & DE
9-09-2021 (Thursday)	Module II : Prof. Rajesh Kumar		Module II : Dr. J. C. Bansal	Module II : Dr. S. J. Nanda	Lab IV : Dr. Urvashi P. Shukla
	Grey Wolf Optimization & Whale Optimization		Biogeography-based optimization	Colliding Bodies Optimization & Social Spider Optimization	MATLAB for Social Spider Optimization
10-09-2021 (Friday)	Module I : Dr. Swagatam Das		Module II : Dr. D. R. Nayak	Module II : Dr. S. S. Sahu	Lab V : Dr. Rahul K. Vijay
	Algorithms for Constrained Optimization		Sin-Cos algorithm for machine learning	Teaching-Learning Based Optimization	MATLAB for Grey Wolf Optimization
11-09-2021 (Saturday)	Module III : Prof. B. K. Panigrahi		Module III: Prof. B. K. Panigrahi	Module III : Dr. Sriparna Saha	Quiz-1
	Introduction to Multi Objective Optimization (MOO)		MOO applications in Biomedical Signal Processing	NSGA-II and it's application to Multi objective Clustering	
12/9/2021	<------(Sunday) Holiday----->				
13-09-2021 (Monday)	Module III : Dr. Swagatam Das		Module III : Dr. Swagatam Das	Module III : Dr. P. M. Pradhan	Lab VI : Dr. Rachana Gupta
	Statistical tests for single and multi objective optimization-I		Statistical tests for single and multi objective optimization-II	Multi Objective Particle Swarm Optimization & CSO	Multi-objecive NSGA-II programing with MATLAB
14-09-2021 (Tuesday)	Module III : Prof. Rajesh Kumar		Module III : Dr. Sriparna Saha	Module III : Dr. P. M. Pradhan	Lab VII : Dr. Rachana Gupta
	MOO Applications in Electrical Engineering		Multi & Many Objective Opt. for Solving feature Selection Problem	MOO for Cognitive Radio & Sensor Network	Many Objective NSGA-III programing with MATLAB
15-09-2021 (Wednes day)	Module IV : Dr. N. V. George		Module IV : Dr. T. Panigrahi	Module IV : Dr. Urvashi Shukla	Lab VIII : Dr. ILA Sharma
	Application of Multi-agent System for Nonlinear System Identification		Application to Wireless Sensor Networks	Application to Hyperspectral Image Processing	MATLAB for Parameter Estimation/System Identification
16-09-2021 (Thursday)	Module IV : Dr. N. V. George		Module IV : Dr. Pankaj Kumar Sa	Module IV : Dr. J. P. Singh	Lab IX : Dr. S. J. Nanda
	Application for Active Noise Control		Application to Video Processing	Application in Text Mining	MATLAB for Channel Equalization
17-09-2021 (Friday)	Module IV : Dr. J. P. Singh		Module IV : Dr. S. S. Sahu	Lab X : Dr. Dinesh Kotary	Quiz-2
	Application to Social Media		Application to Bioinformatics	MATLAB for Data Clustering	Feedback and Validation

**Speakers Details :**

- 1) Prof. Ganapati Panda, Fellow INAE, Fellow NSAI, Former Dy. Director and Prof. Emeritus, IIT Bhubaneswar
- 2) Prof. Bijaya Ketan Panigrahi, Dept. of Electrical Engineering, IIT Delhi
- 3) Dr. Swagatam Das, Electronics and Communication Sciences Unit, ISI Kolkata
- 4) Dr. Pyari M. Pradhan, Dept. of Electronics and Communication Engg., IIT Roorkee
- 5) Dr. Sriparna Saha, Dept. of Computer Science and Engineering, IIT Patna
- 6) Dr. Nithin V. George, Dept. of Electrical Engineering, IIT Gandhinagar
- 7) Dr. Jagdish Chand Bansal, Dept. of Mathematics, South Asian University, New Delhi
- 8) Dr. Pankaj Kumar Sa, Dept. of Computer Science & Engg., NIT Rourkela
- 9) Dr. Jyoti Prakash Singh, Dept. Of Computer Science & Engg., NIT Patna (Coordinator)
- 10) Dr. Trilochan Panigrahi, Dept. of Electronics & Communication Engg., NIT GOA
- 11) Dr. Sitanshu Sekhar Sahu, Dept. of Electronics & Communication Engg., Birla Institute of Technology, Mesra
- 12) Dr Prashant K. Jain, Dept. of Mechanical Engg., IIITDM Jabalpur (Coordinator)
- 13) Dr. Anil Kumar, Dept. of Electronics & Communication Engg., IIITDM Jabalpur
- 14) Dr. Urvashi Prakash Shukla, Dept. of Computer Science, Banasthali Vidyapith
- 15) Dr. Rahul Kumar Vijay, Dept. of Computer Science, Banasthali Vidyapith
- 16) Dr. Rachana Gupta, Institute of Advanced Research, Gandhinagar
- 17) Prof. Rajesh Kumar, Dept. of Electrical Engg., MNIT Jaipur
- 18) Dr. Deepak Ranjan Nayak, Dept. of Computer Science & Engg., MNIT Jaipur
- 19) Dr. Satyasai Jagannath Nanda, Dept. of Electronics & Communication Engineering, MNIT Jaipur (Coordinator)
- 20) Dr. Ila Sharma, Dept. of Electronics & Communication Engineering, MNIT Jaipur (Coordinator)
- 21) Dr. Dinesh Kumar Kotary, PhD from Dept. of Electronics & Communication Engineering, MNIT Jaipur