

REGISTRATION FORM

3 Day TEQIP Sponsored National Workshop on

"INTELLIGENT OPTIMIZATION TECHNIQUES FOR ENGINEERING PROBLEMS"

(August 19 - 21, 2019)

Name of Participant -----

Dept :-----

Gender :-----

Designation:-----

Qualification :-----

Organization:-----

Mobile No.-----

Email:-----

Demand Draft No.-----

I agree to abide by the rules and the regulations governing the Workshop.

Place:

Date: *Signature of the Participant*

Mr./Ms. /Dr./ _____ is a student / employee of our Institution and is permitted to attend the programme.

Signature of the Head of (applicant's) Institution and Seal

Place:

Date:

About NITK Surathkal

NITK Surathkal is a premier institution engaged in imparting quality technological education and a broad range of research, development and consultancy activities. NITK has carved a niche for itself among the best technical institutes in India. As a part of NITK Diamond Jubilee celebration the Institute has planned several academic and technical events and the proposed National Workshop is one among them.

CELEBRATING 60 YEARS



Address for Communication

Dr. N. Gnanasekaran

Assistant Professor

Department of Mechanical Engineering
National Institute of Technology Karnataka,
Surathkal , Mangalore –575 025

E-mail: gnanasekaran@nitk.edu.in

Contact 0824-2473674 (O), 09940871337 (M)

Accommodation: Limited number of rooms in NITK Guesthouses and Hostels available on First Come First Served basis. Cost of boarding and lodging shall be borne by the applicant. Please note that no TA/ DA shall be paid for this event by NITK . Course participants may have to deposit complete amount expected for their stay with Guest House/ Hostel on arrival.

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"INTELLIGENT OPTIMIZATION TECHNIQUES FOR ENGINEERING PROBLEMS"

(August 19 - 21, 2019)



Coordinator

Dr. N. Gnanasekaran

Assistant Professor

Department of Mechanical Engineering,



Organized By

Department of Mechanical Engineering
National Institute of Technology, Karnataka
Surathkal , Mangalore –575025

Department of Mechanical Engineering

Established in the year 1960, the Department of Mechanical Engineering has traversed the path of knowledge dissemination and generation. The department takes pride in producing over 4500 Mechanical Engineering graduates to serve the Nation. Over these glorious years of its journey, it has carved a niche for itself in the key areas of teaching, research, consultancy, administration and community services. The Department of Mechanical Engineering gives priority to update the Mechanical Engineering education, primarily driven by the dynamics of technological advances and sustainable development and the curriculum is revised on a continuous basis with active involvement of industry, alumni, research organizations and other stakeholders. The department offers B.Tech, M.Tech and Ph.D. programs and caters to more than 600 B.Tech. students, 150 M.Tech. students and 100 Ph.D. Scholars.

Objectives of the Program

1. Exposing participants to the fundamental aspects of optimization problems and their applications to various engineering disciplines.
2. Providing adequate preliminary inputs to understand the concepts required for analyzing the theory behind the problem.
3. Extending the theoretical concepts towards applications from various engineering and providing hands on experience in solving real world problems.
4. Building in confidence and capability amongst the participants in solving problems in the relevant areas of science and engineering, with case studies selected from various engineering discipline.
5. Providing exposure to some real-time problems and their solutions, through mini projects, demonstration etc.

About the Program

The course is to encourage the participants to know about the fundamentals of various optimization techniques and to expose them to understand the recent intelligent optimization techniques. This program facilitates the participants to bridge the gap between the theory and practice of engineering algorithms so as to formulate and solve new research problems in their respective fields.

The following topics will be covered in this workshop program:

- Introduction to optimization
- Traditional optimization techniques
- Basics of designing of experiments
- TAGUCHI-Grey Relational approach
- Genetic algorithm
- Particle swarm optimization
- Multi-objective optimization
- Neural network based optimization
- Multi-attribute decision making methods
- TLBO and Jaya algorithms
- Hybrid algorithm
- Numerical exercise using MATLAB

The proposed workshop is aimed to address interdisciplinary problems; hence, participants from Mechanical, Chemical, Civil, Electrical, Electronics, Computer Science, IT and Bio-technology engineering are encouraged to attend the program. The workshop will also enhance the faculty members to deliver the state of the art optimization methods to their students in a better way.

Resource Persons

Prof. C. Balaji

Professor, Department of Mechanical Engineering, IIT Madras.

Prof. Ravipudi Venkata Rao

Professor, Department of Mechanical Engineering, SVNIT, Surat, Gujarat.

Prof. A K Jeevanantham

Professor, Department of Mechanical Engineering, VIT, Vellore.

Prof. Santhi Thilagam

Professor, Department of Computer Science and Engineering, NITK.

Dr. Deepak Subramani

Assistant Professor, Department of Computational Data Sciences, IISc, Bangalore.

Eligibility

The program is open to Faculty, Research Scholars and Students (B.Tech, M.Tech and Ph.D) of AICTE/UGC approved Engineering & Technology Colleges and industry personnel. Number of participants will be limited to 60.

Registration Fee (Inclusive GST)

Amount	GST	Total	Participants
Rs. 1000	+18%	Rs. 1180	Students / Research Scholars
Rs. 1500	+18%	Rs. 1770	Faculty Members
Rs. 2000	+18%	Rs. 2360	Industry Personnel

Demand Draft should be drawn in favor of "Director NITK Surathkal" Payable at NITK, surathkal.

E-mail the scanned copies of the filled and duly signed application to gnanasekaran@nitk.edu.in

Important Dates

Last Date for Submission of Registration Form:

August 2, 2019

Intimation of Selection by email:

August 3, 2019

Last date for Submission of scanned copy of DD by email:

August 7, 2019

Hard copy of the registration form along with the DD should reach the Coordinator on or before August 12, 2019.