

One Week STTP

On

**“Advanced Optimization Tools and
Techniques for
Researchers and Engineers”**

From

23-27 May 2020

Objectives of the Workshop

- 1) The main objective of this training program is to explore the various advanced methods and the application of optimization techniques in the engineering field.*
- 2) To enhance knowledge about advanced optimization tools such as GA, TLBO, PSO, etc.*
- 3) This training program has been designed in such a way to satisfy the needs of academics research scholars and industry personnel carrying out research in various fields.*

Patrons

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Convenor

Dr S.S. Kulkarni, Head, Mech. Engg Dept., SKNSCOE

STTP Coordinator

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Organized by

Department of Mechanical Engineering
SKN Sinhgad College of Engineering, Korti
Pandharpur, District-Solapur, Maharashtra,
Pin- 413 304

**Sponsored
By**



**Punyashlok Ahilyadevi Holkar
Solapur, University Solapur.**

SKN Sinhgad College of Engineering, Korti, Pandharpur (NAAC ‘A’ Grade Institute)

About The Institute



"SPSPM was established under the able and dynamic leadership Prof. M. N. Navale with an objective of providing quality education in the field of engineering, Management, Computer and school education, Kindergarten onwards. All the institutes under the SPSPM are recognized by the concerned statutory authority and meticulously meets the norms and standards laid down by them. SPSPM has handpicked eminent personalities from the field of education and industry as members of the management committee who are committed to provide necessary guidance on academic and professional fronts from time to time.

To serve the interest of the student's community as well as the corporate and industrial sectors SPSPM maintains a close liaison with the industry and other leading organizations. There are experts from different fields contributing their valuable experience to build the institution as a place of learning and discipline. Entrusted by society to create a sustainable world and enhance the global quality of life, engineers serve competently, collaboratively, and ethically."

Vision of Department

To create good quality Mechanical Engineers who are innovative, entrepreneurial and successful in new technologies in the field of Mechanical Engineering to fulfil expectations of industry and society.

Mission of Department

- To impart advanced knowledge to the students in the field of Mechanical Engineering which will be helpful to enhance their technical skills and to make them competitive.
- To create an academic environment for the students which will be helpful to excel in their career along with professional ethics and inculcating attitude of continuous learning.
- To develop culture of research by providing new advanced facilities which will stimulate faculty, staff and students to collaborate with each other for creating, analysing and disseminating knowledge.
- To maintain interaction with industries, educational institutions, R&D organizations and alumni for capacity building of staff and students and to develop research attitude.

Content of STTP

A) Basics of Optimization.

1. Optimization- Basic ideas
2. Dynamic Optimization

B) Introduction to DOE and Surface Response Methodology.

1. Design of experiments (DOE) - Introduction
2. Introduction to response Surface methodology
3. Basics of Response Surface Methodology (RSM) for Process Optimization

C) Hybrid Optimization Techniques.

1. Teaching Learning Based Optimization (TLBO)
2. Particle Swarm Optimization. (PSO)

D) Modern Evolutionary Optimization Techniques.

1. Simulated Annealing
2. Genetic Algorithm Part I and II

E) Modern Evolutionary Optimization Techniques.

1. Artificial Bee Colony Algorithm
2. Working of Artificial Bee Colony Algorithm

Expert Person

1. Dr.Rajendra S. Katikar.

Professor and HOD Production Department, Sinhgad College of Engineering, Pune.

2. Dr.Sarang P. Joshi.

Dean R&D, JSPM's Imperial College of Engineering & Research (ICOER), Wagholi, Pune.

3. Dr.Ajinkya N. Tanksale.

Department of Mechanical Engineering, Indian Institute of Technology, IIT (BHU) Varanasi.

4. Prof.Atul B. Surwase.

Department of E&TC, NBN Sinhgad College of Engineering, Solapur.

Who Can Attend?

The STTP is open to interested faculties, research scholars, industry person of Mechanical, Electrical, Electronics, and Instrumental Engineering from Degree and Polytechnic Institutes.

Technical Requirements

- Laptop or desktop: Linux or Windows OS
- Microphone and speaker must be working
- "Reasonable" Internet connection

STTP Fees

No Registration fee for this One week STTP

Course materials & e-certificate provided to each participants

How to apply?

Enrolment will be strictly online, and no other mode of application will be entertained.. The URL for registration is:

https://docs.google.com/forms/d/1Pe9yMMejCyx0tD7Hpjk_MsWPcoMKeuQcPep-ow93YwM/edit?usp=drivesdk

For any query -

Prof. A.D.Jadhav, Mob.No.9960565717

Prof. A.S.Kulkarni, Mob.No.8412072443.

Email us on: efdpmech.sknscoe@gmail.com

In case if anyone got **less than 40%** marks in quiz of STTP then **e-certificate will not be provided.** For any query/inquiry, please contact Course Coordinator.

Important Dates

The last date of e-registration is

22nd May 2020 up to 5.00 pm.

SKN Sinhgad College of Engineering, Korti, Pandharpur (NAAC 'A' Grade Institute)