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The Production Engineering department was started in the year 1996 and presently is rich heritage of academic excellence, innovative curriculum, effective classroom teaching, application oriented practices, well equipped laboratories and updated workshops, excellent placement record, industry institute interaction and top of the line faculty members with outstanding research abilities. Now, the department runs B. Tech, M.Tech. (Manufacturing Systems Engineering and Robotics and CAD/CAM) and Ph.D.

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**Objective**

Experimentation is a frequent activity of PG students, research scholars as well as the faculties not only of production/manufacturing engineering but of every branch of engineering as well and they usually use primitive strategies to carry on their experiments. An understanding of the Design of experiments (DOE) is very much essential to determine the relationship between factors affecting a process and the output of that process. The performance of the process can be improved by applying optimization to the simulation model with respect to its process control parameters. In order to find the optimum solution, minimize cost and to maximize production rate simultaneously; Single objective optimization as well as multi-objective optimization approaches should be explored.

The objective of this workshop is to impart a holistic view of the fundamentals of experimental designs, analysis tools and techniques, interpretation. It also aims to provide basic knowledge and in-hand experience to academicians and researchers (specifically PG and PhD scholars) from different disciplines to acquire a clear vision on the diverse optimization techniques from fundamentals to applications. After successful completion of the workshop the participants will have a comprehensive understanding of the basics of optimization of process parameters during their machining and will be able to apply this knowledge for the optimal design and analysis of response of interest from an experiment.

**Course Contents**

- Particle swarm optimization (PSO)
- Utility and TOPSIS
- Artificial Neural Network (ANN)
- Analytic Hierarchy Process (AHP)

**Eligibility**

The programme is open to Faculty Members, Research Scholars, PG/UG Students of AICTE/UGC affiliated Institutions/Universities as well as Industry Personnel.

**Registration and Selection**

There is no registration fee for the participants.

Interested participants from industry, academic and research community are required to submit online application through The following Google form link or scanning the QR Code, if necessary.

https://forms.gle/x4zZFJyLkkL17DKA

- Total seat is limited to 50.
- Applicant will be selected based on first come first service.
- The selected applicants will be informed about his/her selection through Email/WhatsApp on 07-09-2020.

**Speakers**

The course lectures shall be delivered by eminent speakers invited from NITs, IITs and other premier institutions of India.

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