

INTRODUCTION

Recently, the statistical methods have been adopted widely for analysis, prediction and/or optimization of a number of engineering practices. Such methods facilitate user to define and study the effect of each possible condition in an experiment where many factors are involved. Design of experiment (DOE) is a statistical technique which maximizes the amount of information gained from a study, while minimizing the amount of data to be collected. It provides the information on the interaction of factors and how the whole system works, something not attainable through testing individual factors at a time while other factors are kept constant. DOE also shows how interrelated factors react across a wide range of data, without the testing of all possible values directly. It has extensive applications specifically in the field of engineering and science for the determination of process optimization and development, process management and validation testing.

This FDP program gives participants a comprehensive understanding of planning and conducting scientific experiments for collecting data and analysing the data to have optimized results. It has been designed to be generic in nature for satisfying the needs of researchers from academic institutions and industry

COURSE OUTLINE

Module I

Overview of DOE, Types and purposes of DOE methods, Full factorials design, ANOVA, Factorial effects and plots Fractional Factorial Design, Taguchi designs and Robust Design with examples

Module II

Response Surface Methodology, Central Composite Designs, Box-Behnken Design
Multi Response Optimization - Grey-Taguchi Method, Desirability function approach, Utility theory, Fuzzy inference system and Principal component analysis

Module III

Evolutionary Algorithms

Genetic Algorithm, Particle Swarm Optimization, Teaching-Learning based algorithm, Harmony search, single and multi-objective optimization.

Outstation Participants: Rs. 3000/-
(Faculty/Research Scholars)

The course fee includes accommodation, hands on practice facility and working lunch.

Participant who attends the full course will be issued a certificate of participation.

RESOURCE PERSONS

Dr. S. S. Mahapatra, Professor, NIT, Rourkela,
Dr. Saurav Datta, Asso. Prof., NIT, Rourkela,

WHO SHOULD ATTEND ?

All practicing engineers working in private, public, government organizations/industries, scientists/engineers from R&D establishments, faculties, research scholars and students from engineering institutions are eligible to apply.

COURSE FEE

Professionals from Industry & R&D Units: Rs.5000/-

Outstation Participants: Rs. 3000/-
(Faculty/Research Scholars)

The course fee includes accommodation, hands on practice facility and working lunch.

Mode of Payment

All payments should be made through:

* A/C Holder : **Ajit Kumar Senapati**

* A/C No: **128610100125388**

* IFSC Code : **ANDB0001286**

* Branch : **Andhra Bank (GUNUPUR).**

Spot registration will be done on the same day at the Dept. of Mechanical Engg.

FACULTY DEVELOPMENT PROGRAMME

ON
OPTIMIZING PROCESSES
WITH
DESIGN OF EXPERIMENTS
(OPDE- 2018)

5TH MAY – 7TH MAY, 2018



ORGANIZED
BY



DEPARTMENT OF MECHANICAL
ENGINEERING
GIET, (AUTONOMOUS) GUNUPUR-765022

ABOUT THE INSTITUTE

GIET, Gunupur was established in the year 1997, with a motto to provide quality engineering education in a highly disciplined environment with international standard, along with character building which enables the students to face the challenges of the present employment market. In less than a decade, it became a citadel of engineering education in Eastern India with 1050 intake for 10 B. Tech. (UG) branches and 6 M. Tech. (PG) courses. It has been recognized as Modern Gurukul by the students, alumni, faculty and all distinguished visitors for its learning environment, teaching, infrastructure and other facilities. It has also the approval for Admission of Foreign Nationals and Persons of Indian Origin (PIO's). It has the latest equipment for various laboratories, consequently drawing appreciation from the university, AICTE as well as DSIR as recognized centre for research. It endeavors imparting quality education, by which it has earned ISO 9001:2000 certification along with National Accreditation authorities like NBA, New Delhi for 4 times and Reaccredited by NAAC, UGC New Delhi for 5 years with 3.28 CGPA out of 4 point scale. All the programs of engineering are approved by AICTE & state Govt. of Odisha. It is affiliated to Biju Patnaik University of Technology. The institute has consistently excelled in academics, placements & extracurricular activities.

MECHANICAL ENGINEERING DEPARTMENT

The Department of Mechanical Engineering was established in the year 1997 and presently offers 4-year B.Tech. programme in Mechanical Engineering with 180 intake and two post-graduate programs in Thermal Engineering and Machine Design with 18 intake each. The programme is approved by AICTE and Accredited Thrice by National Board of Accreditation (NBA), New Delhi. The Department has the state-of-art equipment necessary for curricular needs. The department has state-of-art laboratory facilities and resources both in terms of hardware and software.

Chief Patron

Prof.(Dr.) Satya Prakash Panda
Chairman, GGI, Gunupur
Prof.(Dr.) Chandra Dhawaja Panda
Secretary, GGI, Gunupur
Prof.(Dr.) Jagadish Panda
Vice Chairman & Director, GGI, Gunupur

Patron

Prof. (Dr.) K. Senthil Kumar
Principal, GGI, Gunupur
Prof. (Dr) N. V. J. Rao,
Dean (Admin), GGI, Gunupur

Programme Coordinators

Dr. Ajit Kumar Senapati
Dr. Prabina Kumar Patnaik
Mr. Manas Ranjan Panda

Organizing Committee

Dr.K. Ch. Rath	Mr. Santosh Kumar Tripathy
Dr. R.Govind Rao	Mr. S.N. Maharana
Mr. Siva Sankara Raju	Mr.N. Satya Kanthi Kiran
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Mr. Sibabrata Mohanty	Mr. Nalinikanta Panda
Mr. Debabrata Panda	Mr. Sunil Rout
Mr.Ajit Prasad Dash	Mr. K. Vikash Kumar
Mr. Sasank Shekhar Panda	Mr. Manas Ranjan Mohanty

Important Dates

Last Date of Registration: 30th April, 2018

Selection Intimation to the Applicant:

1st May, 2018

(Through Email only)

Course date: 5th May – 7th May 2018

DEPARTMENT OF MECHANICAL ENGINEERING
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APPLICATION FORM
FACULTY DEVELOPMENT PROGRAM
ON
OPTIMIZING PROCESSES
WITH
DESIGN OF EXPERIMENTS
(OPDE-2018)
(5TH MAY – 7TH MAY 2018)
LAST DATE OF REGISTRATION: 30TH
APRIL, 2018

NAME:

DESIGNATION:

ORGANISATION:

HIGHEST QUALIFICATION:

DOB:

GENDER: M / F

ADDRESS:

MOBILE No:

EMAIL:

DETAILS OF REGISTRATION FEE:

SIGNATURE