

**TWO DAYS WORKSHOP ON
DESIGN OF EXPERIMENTS (DOE)**

February 7th - 8th 2019

REGISTRATION FORM

Name: Mr/Ms/Mrs/Dr: _____

Academic Qualification: _____

Designation: _____

Organization: _____

Institution Address: _____

Mobile: _____

E - Mail: _____

Registration Fee Details:

D.D. No.: _____

Bank Name: _____

Accommodation Requirement : YES / NO

Date: _____ Signature

DD in favour of "**Mechanical Engineering Association**"
Payable at **Chennai**.

The above information along with D.D may be sent to
the coordinators on or before **30th JANUARY, 2019**

RESOURCE PERSONS / SPEAKERS

The resource persons for this course are from reputed institutes
having rich experience in design of experiments techniques.

Dr. S.S. MAHAPATRA, Professor

Mechanical Engineering
National Institute of Technology
Rourkela, INDIA

Prof. S.P. VENKATESHAN, Professor Emeritus (Adjunct)
IIITDM, Kancheepuram

Dr. A. SUBBARAYAN, Visiting Faculty

Directorate of Research
SRM Institute of Science and Technology
Kattankulathur

Dr. S. PRABHU, Professor and Head

Department of Mechanical Engineering
SRM Institute of Science and Technology
Kattankulathur

REGISTRATION FEE DETAILS

Students / Research Scholars: Rs. 1000

Faculty from Academia: Rs. 1500

R&D / Industry: Rs. 3000

BANK DETAILS

Account Name: Mechanical Engineering Association

Account No.: 459777734

Name of the Bank: Indian Bank

IFSC Code: IDIB000S181

MICR No.: 600019171



FOR REGISTRATION

<https://goo.gl/forms/20JZmdhEXD5M6ceq2>

CONTACT

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**Organized by
MECHANICAL ENGINEERING ASSOCIATION**

Convener

Dr. S. PRABHU

Professor and Head
Department of Mechanical Engineering

Co-Ordinators

Dr. A. RAZAL ROSE

Associate Professor

Mr. D. SELWYN JEBADURAI

Assistant Professor

Mr. I. AATTHISUGAN

Assistant Professor

**Department of Mechanical Engineering
SRM Institute of Science & Technology
Kattankulathur -603203, Kancheepuram (DT), Tamilnadu.
www.srmuniv.ac.in**

ABOUT THE INSTITUTE

SRM Institute of Science and Technology is one of the top ranking Universities and most premier engineering destinations in India. It was established in 1985 by the Founder Chancellor Dr. T.R. Paarivendhar. SRM IST is functioning in four campuses located at Kattankulathur, Vadapalani and Ramapuram in Tamilnadu and a fourth campus at Modi Nagar, Ghaziabad with over 50,000 students and 3,020 faculty members. SRM IST offers a wide range of undergraduate, postgraduate and doctoral programs in Engineering, Management, Medicine & Health Sciences, Law and Science & Humanities. The Institution has grown up through international alliances and collaborative initiatives to achieve global excellence. Over 150 students are sponsored for 35 foreign Universities like MIT, Carnegie Mellon, UC Davis, Warwick and Western Australia. Now the Institute enjoys an unsurpassed reputation in academic and corporate circles being as the preferred human resource, for its vision to be as a world - class learning institution. SRM IST has been categorized as grade A University by Ministry of Human Resource Development (MHRD); Government of India. SRM IST is accredited by NAAC with highest A++ Grade in the year 2018.

ABOUT THE DEPARTMENT

The Department of Mechanical Engineering is one of the pioneering department of SRM IST. The present faculty strength is 137. About 500 research papers have been published in international journals and about 700 papers in international / national conferences. The department is functionally divided into three areas of specialization: (i) Design, (ii) Manufacturing and (iii) Thermal Engineering. The National Board of Accreditation had accredited the Mechanical Engineering program in 1997, itself. The Mechanical Engineering department at Kattankulathur campus is accredited by ABET, USA. The department also offers Doctoral programs in these three areas of specializations.

The following salient workshops and conferences conducted by Mechanical Department were 10th Asian symposium of visualization, 2010. National Workshop on fuel cell technology, 2008, International Conference on Advances in Mechanical Engineering 2006, Short Course on Mechanics of Composite Materials and Structures: 2015, Workshop on Development, Manufacturing and Analysis of Advanced Composites, 2015 and short course on FEM, 2015, National Conference on Advances in Mechanical Engineering (NCAME 2016), Brain Wave Robotis, 2017, International Conference on Advances in Mechanical Engineering (ICAME 2018).

Various Research facilities available in the department are 51/2 axis CNC Machine, IRB 1410 robot, IRB 360 FlexPicker Vision ABB robot, wear and friction monitor Apparatus, thyristor controlled 64 – segment program electric furnaces, 7 Mill volt He – Ne with spatial filter, vision systems, computerized surface roughness tester, Fazo portable CMM, Carl Zeiss size CMM, six axes spine simulator, computerized IC engine test Rig, gas analyzer, Kistler Impact hammer, RPT, solar steam cooking plant and FMS systems, DSC, CFD, Stir Casting, Friction Welding, Composite Equipments.

ABOUT THE WORKSHOP

The statistical principles underlying design of experiments were largely developed by R. A. Fisher during the 1920s and 1930s. Over the past 15 years, there has been a tremendous increase in the application of experimental design techniques in almost all types of industries. The work of G. Taguchi on robust design for variation reduction had revolutionary impact on Japanese industry. Today industries all over the world use design of experiments for problem solving and robust product development. The academic community use design of experiments extensively to prove or validate their research findings.

Design of Experiments is the most powerful statistical tool that will provide the most significant information possible with the least amount of work. DOE has gained common

acceptance among the researchers of various disciplines. Its cost effectiveness, greater speed and its ability to reveal design limitations not apparent with the traditional experimental methods make DOE approach more vital in research field.

The objective of this course is to provide faculty members and students a theoretical and practical knowledge on the Design of Experiments and the skill required to analyze engineering problems with a commercially available software package. This course is designed in such a way that, in addition to the fundamental topics, advance topics have been included inline with the current research scenario which will be covered through expert lectures and hands on training.

COURSE CONTENTS

The FDP will cover the different aspects of recent trends in Design of Experiments, which include

- **BASICS OF DESIGN OF EXPERIMENTS**
- **DESIGNS FOR INDUSTRIAL EXPERIMENTATION**
- **METHODS AND ANALYSIS ON DESIGN OF EXPERIMENTS**
- **TAGUCHI-GREY RELATIONAL APPROACH**
- **RESPONSE SURFACE METHODOLOGY**
- **MULTI-RESPONSE OPTIMIZATION**
- **HANDS ON TRAINING USING SOFTWARE**

OBJECTIVES OF THE FDP

The two day FDP on “Design of Experiments” is organized by the Department with the following objectives:

- To bring together people (students / researchers / industries) from across India, who are working on experimental design for a better interaction.
- To impart basic knowledge about the various avenues for active research in recent trends in Design of Experiments.
- To expose the participants to the current scenario in Design of Experiment techniques.