

**Sant Longowal Institute of Engineering & Technology, Longowal -148106, Dist. Sangrur (Pb)  
(Deemed University under MHRD, Govt. of India)**



**Short Term Training Programme (STTP)**

**On**

**Research Methods in Engineering & Technology (RMET-2017)**

**(January 9-13, 2017)**

Organized by  
Department of Mechanical Engineering

**Sponsored by TEQIP II, MHRD, Govt. of India**

**Course Coordinators**

**Dr. P. K. Singh**, Professor

**Dr. Arvind Jayant**, Associate Professor

Department of Mechanical Engineering, SLIET Longowal

Ph: 01672-253292, 276 (O),

Mobile: +91-9417666112, 9417462320

E-mail: [arvindjayant@sliet.ac.in](mailto:arvindjayant@sliet.ac.in),

[arvindjayant@gmail.com](mailto:arvindjayant@gmail.com), [pkschauhan@yahoo.com](mailto:pkschauhan@yahoo.com)

## **Introduction:**

Research & Innovation is the continuous feature of any developing and developed society. The Government of India has been more & more attention towards the research & innovation to develop the indigenous technology. The faculty members in engineering institutions and scientists in various laboratories have been making day-and-night efforts in research & innovation. There are a number of research methods evolved over the decades and centuries. The continuous improvement and new addition of the research methods are also going on across the academia, research institution and industry. The beginners, research scholars and R & D personnel generally get confused during selection and implementation of research methods. This STTP is an attempt to share the knowledge and discuss various research methods applicable to various streams of engineering & technology.

## **Course Objectives:**

The objective of the STTP is to develop an awareness of various research methods applicable to various streams of engineering & technology, among participants, and encourage them to take up the research assignment in

their area of interest with application of latest quantitative methods.

## **Course Contents:**

The focus of the STTP is to discuss various research methods applicable to various streams of engineering & technology, Following are a few important topics would be covered during the programme.

- Design of Experiments, Response Surface Methodology, Taguchi Methods
- Modeling & Simulation of Engineering Systems, Artificial Neural Networks, Fuzzy Logic, etc.
- Graph Theory
- Continuous & Discrete Event System Simulation.
- Finite Element Methods, Computational Fluid Dynamics, etc.
- Monte Carlo/ Stochastic Methods.
- Advanced Optimization (Metaheuristics)
- Qualitative Techniques: ANP/AHP, GRA, IRP, TOPSIS, PROMETHEE, ELECTRE and VIKOR.
- Condition Monitoring, Fault Diagnosis and Signal Processing

## **Resource Persons:**

Apart from faculty members of SLIET Longowal, experts from IITs/IIMs/NITs/DTU and Industries of national repute will conduct the theory & practical sessions of the programme.

## Who can participate?

Faculty members belonging to engineering & technology, management and applied sciences disciplines from AICTE recognized engineering institute and Universities can participate in the programme. The programme is also useful to industrial practitioners working at appropriate level involved in R & D and strategic engineering decision making.

## Selection process:

Maximum number of participants allowed in this programme is 30. The offer will be made on first-come, first-served basis (date of receipt of application form).

## How to Apply:

The interested faculty members from academia and Industrial practitioners are required to send the duly filled registration form with registration fee in form of DD in favor of RMET-2017, SLIET, Longowal to the following address.

### Dr. Arvind Jayant, Programme Coordinator

Associate Professor

Department of Mechanical Engineering, SLIET Longowal, (Deemed University), Longowal-148106 (Punjab).

Tel.: 01672-253276 (O), Mobile: +91-9417666112

E-mail: [arvindjayant@sliet.ac.in](mailto:arvindjayant@sliet.ac.in)

[arvindjayant@gmail.com](mailto:arvindjayant@gmail.com)

## Course fee/Registration Fee (Non-refundable)

- Registration Fee for Faculty: Rs. 500/-
- Registration Fee for Research Scholar: Rs.250/-
- Registration Fee for Industrial Delegates: Rs. 1000/-

Boarding, lodging arrangements will be made to accommodate participants on twin sharing basis at the Faculty Guest House and Transit Guest Houses. Meals will be arranged at Faculty Guest House for all the participants. No TA will be provided to the participants for attending the programme.

## Important Dates:

Last date for receipt of duly filled application form

**December 13, 2016**

Finalization of list of selected participants

**December 20, 2016**

Last Date for receipt of confirmation participation (via email)

**\*December 23, 2016**

*\*Participation stands cancelled if confirmation email is not received by the specified date. Seats, if so vacant, will be offered to other eligible applicants.*

## Contact Details:

### Dr. P. K. Singh, Programme Coordinator

Professor, Department of Mechanical Engineering, SLIET Longowal, (Deemed University), Longowal - 148106 Dist. Sangrur (Punjab).

Ph: 01672-253292, (O), +91- 9417462320 (M)

E-mail: [pkschauhan@yahoo.com](mailto:pkschauhan@yahoo.com)

### Dr. Arvind Jayant, Programme Coordinator

Associate Professor, Department of Mechanical Engineering, SLIET Longowal, (Deemed University), Longowal -148106 Dist. Sangrur (Punjab).

Ph: 01672-253276 (O), +91-9417666112 (M),

E-mail: [arvindjayant@sliet.ac.in](mailto:arvindjayant@sliet.ac.in),

## Registration Form

### Research Methods in Engineering & Technology (RMET-2017)

**January 9-13, 2017**

Name: -----

Academic qualification: -----

Designation: -----

Experience (years): -----

Institution: -----

Address for correspondence:

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Telephone: -----

Mobile: -----

E-mail: -----

Accommodation needed: Yes / No

Enclosed crossed bank draft No. \_\_\_\_\_  
Dated \_\_\_\_\_ of \_\_\_\_\_ in favor of  
"RMET-2017", SLIET, Longowal.

Signature of the applicant

**Signature and Seal of Sponsoring Authority**