

TECHNICAL EDUCATION  
QUALITY IMPROVEMENT PROGRAMME  
sponsored  
3-day Offline Training Programme

## STATISTICS FOR RESEARCHERS

23<sup>rd</sup> to 25<sup>th</sup> May 2022



Organized by

DEPARTMENT OF CHEMICAL ENGINEERING  
GOVERNMENT ENGINEERING COLLEGE, THRISSUR

### ABOUT THE COURSE

Students, researchers, and engineers want to analyze the experimental data scientifically and rigorously and communicate the outcomes in reports, theses or publications in an unambiguous manner. The objective of this course is to enable the participants to acquire knowledge and skills in statistical data analysis and design of experiments, from a basic knowledge of calculus, linear algebra and probability and statistics.

The course will introduce to the participants the essential tools for data analysis with discussions on popular probability distributions, the concept of random samples, linear regression, and hypothesis testing. In the topic of design of experiments the course is planned to provide an overview of factorial design, orthogonal designs, higher order designs and guidelines for selecting the most appropriate design.

### COURSE CONTENTS

- Probability and Random variables
- Hypothesis Testing
- Linear Regression Analysis
- Analysis of single factor experiments
- Factorial Design of Experiments
- Response Surface Methodology
- Comparison of different experimental design strategies
- Development and interpretation of the above topics in *Minitab*.

### ABOUT THE INSTITUTE

Government Engineering College, Thrissur, an ISO 9001: 2015 certified institution is a centre of technical excellence and one of the most prestigious technical educational institutions in Kerala. The foundation stone of the college was laid by late Pandit Jawaharlal Nehru, the first Prime Minister of India, on 26<sup>th</sup> April 1958. The college campus is spread over 75 acres and is located at Ramavarnapuram, about 5 km from the heart of Thrissur town and about 6 km from Thrissur Railway Station.

The college is offering undergraduate courses in eight branches of engineering and postgraduate programs in sixteen disciplines. The research activities of the institution are in an escalating stage with the active involvement of more than one hundred PhD scholars available in the campus. The college is currently affiliated to APJ Abdul Kalam Technological University. The programs are recognized by the All India Council for Technical Education (AICTE), Council of Architecture (CoA) and accredited by National Board of Accreditation (NBA).

### ABOUT THE DEPARTMENT

The department of chemical engineering set up in 1962, was the first of its kind in Kerala offering B. Tech degree in Chemical Engineering. The department is an approved PhD centre of the University of Calicut and APJ Abdul Kalam Technological University. The core research areas of the department include water and wastewater treatment and material science and engineering.

### ELIGIBILITY

Regular faculty members in AICTE approved Govt./Aided/Self-financing Engineering colleges and Polytechnic Colleges in Kerala state are eligible to apply for this programme. Number of participants is limited to 30.

### REGISTRATION FEE

No course fee will be collected from teachers of Govt./Aided Engineering colleges and Polytechnic Colleges. However a course fee of Rs.1000 per head will be charged from teachers of Self-financing colleges as per G. O. (Rt) No. 1606/2020 H.Edn dated 23-12-2020.

### FACILITIES

Participants are eligible for Travelling Allowance, Accommodation, Conveyance from lodging to training center, Course materials, lunch and refreshments as per norms.

### HOW TO APPLY

Interested candidates should register using the link <https://forms.gle/N2nrhnsnGBLaytwd6>. The filled-up applications in the specified format duly signed and sponsored by the competent authority also should be uploaded in the same link. A scanned copy of the form shall be sent on or before **09-05-2022** to the following email id: [statstcgectr@gmail.com](mailto:statstcgectr@gmail.com)

Selected candidates shall be intimated along with the details regarding payment (if any) through their registered email id by 13-05-2022.

### IMPORTANT DATES

Last date of receipt of application	: 09-05-2022
Intimation of selection by e-mail	: 13-05-2022
Confirmation from the participant	: 16-05-2022

### COURSE FACULTY

**Dr. Kannan A.,**  
Professor in Chemical Engineering,  
Department of Chemical Engg.,  
IIT Madras  
will be the resource person for all  
the sessions of the program.



### PROGRAMME COORDINATORS :

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