

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY  
SPONSORED



Five Day Online  
Faculty Development  
Programme  
on  
**Robotics and Control:  
Theory and Practical  
Approaches**

13<sup>th</sup> - 17<sup>th</sup> September 2021



For Registration click link below :

<https://bit.ly/RoboticsandControl>



**Organized by:**  
**Department of Electrical and Electronics Engineering,**  
**College of Engineering Perumon,**  
**Perinad P.O., Kollam District, Kerala.691601**

## About the Institution

College of Engineering Perumon was started during the year 2000 under the Co-operative Academy of Professional Education (CAPE), established by Government of Kerala, on the banks of the Ashtamudi lake, which is included in the tourism map of Kerala. The College offers engineering courses in Computer Science & Engineering, Electronics & Communication Engineering, Electrical & Electronics Engineering and Mechanical Engineering and PG course (M-Tech) in Computer & Information Science in affiliation with APJ Abdul Kalam Technological University (KTU) and approved by All India Council for Technical Education (AICTE).

## About the Department

The Department of Electrical and Electronics Engineering in College of Engineering Perumon has been functioning from the year 2000, with an intake of 60. The department, with its well-qualified and experienced faculties and technical staffs, committed to excel in Electrical Engineering through proper education and research. The department houses laboratories with modern infrastructure. It includes most modern equipment like, process control set-up with PLC, Power Quality Analyzer, advanced software facilities, different types of AC and DC machines drive system. The department also got Accredited by NBA for four years from 2018 to 2022.

### Vision

To be the innovative global leader in technical education and research by providing excellent education in Electrical and Electronics Engineering.

### Mission

To produce high quality professionals in Electrical and Electronics Engineering who have serious concerns on engineering fundamentals, technological advancements, professional ethics and social value system.

### Programme Educational Objectives

- Our graduates will have sound foundation in Electrical and Electronics Engineering to analyze, identify and solve real time problems in engineering. They will also have effective communicative skills to address social issues.
- Our graduates will work efficiently in a team, possessing leadership skills along with professional ethical attitude, and will serve the society in an environment friendly way.
- Our graduates will become entrepreneurs; they will contribute to research in multidisciplinary areas and will resort to lifelong learning for sustainable developments.

## About the Course

Robotics is a multidisciplinary field that instituted upon contributions and advancements in diverse area of science and technology .The application of robotics is countless in the current era, as in logistics management, automaed manufacturing ,self driving cars, unmanned aerial vehicle and many more. The main objective of this programme is to make the aspiring engineers acquainted with the conceptual as well as practical knowledge in Robotics and its control. This course will also help to identify future research needs and hence contribute towards the development and innovation in interdisciplinary research field .In the present day as the technological advancement progress, the robot and its method of control continue to develop and advances.

## Course Contents

Introduction to Robotics, Anatomy, Spatial transformation, Robot kinematics, Trajectory generation, Differential kinematics, Robot statics, Robot dynamics, Robot Control, MATLAB programming on kinematics, statics, Jacobian matrix, robot. Robotics Advance Motion Control with sub topics, Issues in Robotics Motion Control, Interactions and Constraints, and Bilateral Control Systems.

## Resource Persons

- Dr. M. Felix Orlando  
Assistant Professor  
Indian Institute of Technology Roorkee.
- Akhil Gopinath ,  
Educational Customer Success  
Engineer, Mathworks.
- Dr. Branesh M. Pillai, Faculty Member,  
Centre for Biomedical and Robotics Technology  
(BART LAB), Mahidol University, Thailand.

## Organizing committee

**Patron:**

**Dr. R. Sasikumar**  
(Director , CAPE)

**Chairperson:**

**Dr. Z. A. Zoya**  
(Principal)

**Convenor :**

**Dr. Bindu S. J.**  
(Associate Professor, Head of Department )

**Cordinators :**

**Mrs. Edwina G. Rodrigues**  
(9847491325)  
**Mr. Abilash R. S.**  
(9446757287)

**Robotics and Control : Theory and Practical Approaches**

**Registration Form**

Name : .....  
Designation : .....  
Department : .....  
Institution : .....  
KTU ID : ..... Educational qualification: .....  
Mobile number : ..... Email id : .....

**Declaration**

I, here by declare that the details furnished above are true to the best of my knowledge and belief, also I agree to abide the rules and regulation governing the conduct of KTU sponsored programme.

Signature of Participant

**Sponsorship Certificate**

Certified that Mrs/Ms/Mr/Dr.....is working as.....in Department of ..... of our institution and hereby sponsored to attend the KTU Sponsored online FDP on **Robotics and Control :Theory and Practical Approaches** at College of Engineering Perumon,Kollam ,Kerala from **13<sup>th</sup>-17<sup>th</sup> September, 2021**

**Place :** Signature of HoD / Head of Institution  
**Date:** with Seal

**Registration**

- The program is open to faculty members of any stream of AICTE/KTU approved engineering colleges.
- No registration fee for participation and E certificate will be issued to all participants who have attended all session of FDP
- Last date of registration : **11.09.2021** .
- The participants are requested to fill the registration form and upload in the registration link or mail to [eeecep@perumonec.ac.in](mailto:eeecep@perumonec.ac.in)
- Registration link: <https://bit.ly/RoboticsandControl>