



### VISION

Excel in mechanical engineering education and research for overall sustainable development.

### MISSION

Impart quality education to nurture globally competent and socially responsible mechanical engineers.

Foster research to address the technological needs that society faces.

### ORGANIZING COMMITTEE

#### Chief Patron

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

#### Patron

**Prof. (Dr.) Z. A. Zoya**  
(Principal,  
College of Engineering  
Perumon)

#### Convenor

**Prof. (Dr.) Dileepal J.**  
(HOD - ME)

#### Coordinators

**Prof. Sudeep Dinesh**  
(Assistant Professor in ME)  
Mob: 9746930925

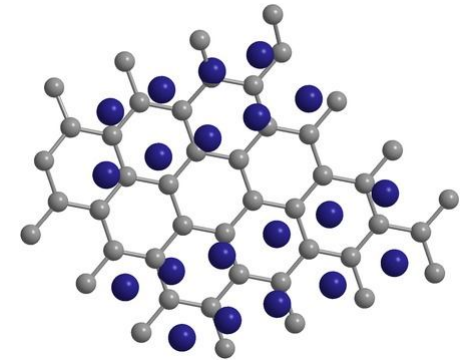
**Prof. Hareesh Y. S.**  
(Assistant Professor in ME)  
Mob: 9747111986

### HOW TO APPLY

The candidates can register their names through the following link on or before 02/11/2020.

<https://forms.gle/TXD5Fh1b6nKB3obb7>

ONLINE  
FACULTY DEVELOPMENT PROGRAMME  
ON  
ADVANCES IN  
NANOTECHNOLOGY  
(Sponsored by TEQIP II)



November 04 - 06, 2020



Organized by  
**Department of Mechanical Engineering**  
**College of Engineering Perumon**  
(Under CAPE, Government of Kerala)  
Perinad P. O., Kollam, Kerala - 691601

## ABOUT THE INSTITUTE

College of Engineering Perumon was established in the year 2000 under the Co-operative Academy of Professional Education (CAPE), Govt. of Kerala. The college has registered speedy progress since then and it offers 4 undergraduate programmes (ME, EEE, ECE, and CSE) and a postgraduate programme (CSE) in affiliation with APJ Abdul Kalam Technological University (KTU). The college has attained ISO 9001:2015 certification and two undergraduate programmes (EEE and ECE) got accredited by NBA. The college has a distinctive academic stature in the arena of engineering institutions in the state.

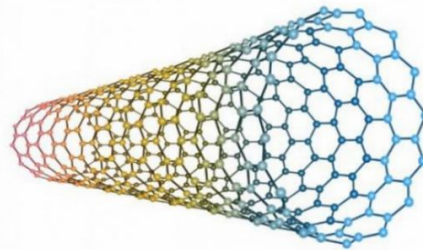
## ABOUT THE DEPARTMENT

The Department of Mechanical Engineering was established in the year 2011 offering B.Tech programme in Mechanical Engineering. With a right blend of theory and practice, this programme has well laid itself as a prominent option for students. The department has a team of well qualified and experienced faculty in all streams of mechanical engineering who always stride for imparting quality education. State-of-the-art laboratories in the department help to mould engineering graduates as per

the curriculum requirements. The department is continuously striving to achieve excellence in mechanical engineering education and research with service to the society.

## ABOUT THE PROGRAMME

The world of nanotechnology provides exciting challenges and opportunities for scientists and engineers irrespective of their discipline. Nanotechnology is hailed as having the potential to increase the efficiency of energy consumption, and help clean the environment. It is said to be able to massively increase manufacturing production at significantly reduced costs. Products of nanotechnology will be smaller, cheaper, lighter yet more functional and require less energy and fewer raw materials to manufacture, claim nanotech advocates.



The FDP deals with the fundamentals of nanotechnology at the introductory level with relevance to heat transfer. The programme will help to understand the subject with ease by

presenting the content in a simplified level appropriate for faculty members/ researchers. The FDP will also give the knowledge about the current status of nanotechnology research to the participants. This will help the faculty members to take up research in the field of nanotechnology in their subject area.

## TOPICS

- Cooling systems and micro nano heat transfer
- Nanofluids
- Introduction to micro scale heat transfer
- Heat transport augmentations using metal oxide nanofluids
- Computational methods in nanotechnology
- Nano high entropy alloys.

## RESOURCE PERSONS

Faculty will be drawn from reputed educational institutions in Kerala.

## INTENDED AUDIENCE

This course is intended for faculty members from engineering and polytechnic colleges in all disciplines and industrial professionals.

## REGISTRATION FEE

No registration fee will be charged from participants.