

## About the Programme

### Objectives:

The main objectives of the FDP are:

- To provide a comprehensive review on latest trends in nanomaterials synthesis, characterization, computational methods and applications ranging from carbon capture to hydrogen storage.
- To expose the faculty to the various avenues of research, both experimental and computational, in the realm of nanomaterials.
- To empower the faculty through discussions and deliberations on effective pedagogical practices, thought provoking laboratory activities and writing technical articles.

### Outcomes:

The participants of the FDP will be able to

- 1) Understand the latest trends in the synthesis of nanomaterials.
- 2) Understand the latest methods and equipment for the characterization of nanomaterials.
- 3) Identify the potential area of research using nanomaterials in different applications.
- 4) Prepare nanofluids and measure their thermo physical properties for heat transfer study.
- 5) Write molecular dynamics code to simulate nanoscale phenomena.



## FDP contents

This FDP aims to include introduction to Nanoscience and nanotechnologies, basics of nano effects, overview of nanomaterials, synthesis of nanomaterials, characterization and properties, application of nanomaterials in various fields such as heat transfer, energy storage, medicine and health care, environment, information and communication technology.

## Resource persons

Faculty Members of the reputed institutions and the Professionals/Experts of Research Labs /Industries etc. will share their expertise in the programme in addition to our own Faculty from College of Engineering Adoor.

## Who can Attend?

The faculty members of AICTE approved Institutions, Universities, research scholars; participants from Government, Industry and professionals from R&D labs. Number of participants is limited to 50. There is no course fee and preference will be given to new participants. Selection of the participants will be based on the first come first serve basis.

## How to Register ?

Registration has to be done only through  
<https://atalacademy.aicte-india.org/>  
For more information, kindly visit  
<https://atalacademy.aicte-india.org/FAQs>

## What is Important?

It is mandatory to attend the test that will be conducted in the last day of the FDP related to the topics covered. It is also mandatory for the participants to have a minimum of 80% attendance and 60% marks in the test to earn the certificate.



AICTE Training and Learning Academy (ATAL)

## Faculty Development Programme

On

# Nanomaterials : Methods and Applications

12<sup>th</sup> -17<sup>th</sup> February, 2024



Coordinator

**Dr. VENKITARAJ K P**

Organized by

**Department of Mechanical Engineering**

**College of Engineering Adoor**

( Managed by IHRD, a Govt. of Kerala Undertaking)  
Manakkala,P.O  
Adoor , Pathanamthitta – 691551

[www.cea.ac.in](http://www.cea.ac.in)

## AICTE –Teaching and Learning Academy (ATAL)

The main objectives of the ATAL Academy are

- To plan and help in imparting quality technical education in the country.
- To support technical institutions in fostering research, innovation and entrepreneurship through training in various emerging areas.
- To stress upon empowering technical teachers & technicians using Information & Communication Technology .
- To utilize SWAYAM platform and other resource for the delivery of trainings.
- To provide a variety of opportunities for training and exchange of experiences Such as workshops, Orientations, learning communities, peer mentoring and other faculty development programmes.
- To support policy makers for incorporating training as per requirements

## About The Institute

College of Engineering, Adoor is located in the District of Pathanamthitta in the state of Kerala. The College of Engineering, Adoor was established by Government of Kerala in 1994 under the Institute of Human Resource Development (IHRD), a Government of Kerala undertaking. The college offers UG level programmes in Computer Science & Engineering, Computer Science (Data Science), Electronics & Communication Engineering, Electrical & Electronics Engineering and Mechanical Engineering. College of Engineering Adoor was selected for the TEQIP-II Project.

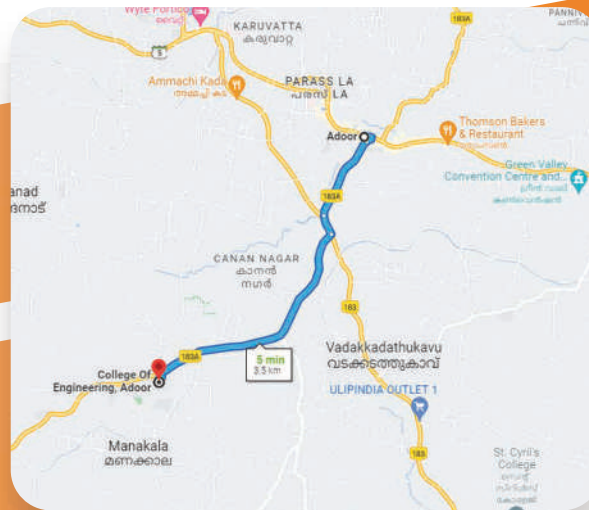
## About the Department

The Department of Mechanical Engineering was started in the year 1994 and has well experienced faculty with post graduate and doctoral qualifications from prestigious institutions. The department offers UG programme of B.Tech. in Mechanical Engineering which is accredited by National Board of Accreditation.

The department faculty have published research articles in various national & international Journals with impact factor and Science Citation Index in the following research areas

- Nanofluids
- Thermal Energy Storage
- Phase Change Materials
- Vibrations
- Manufacturing
- Molecular Dynamics
- Flexible Manufacturing Systems

## How to Reach !



College of Engineering, Adoor is located at Manakkala, 4 km away from Adoor town on the side lines of Adoor- Bharanikavu road.



**Dr. V A Arun Kumar**  
Director  
Institute of Human  
Resources Development (IHRD)



**Dr. K Sunilkumar**  
Principal  
College of Engineering Adoor

## Advisors

### Dr. Sureshkumar N

Professor & HoD  
Department of Mechanical Engineering

### Dr. Jose Mathew

Associate Professor & IQAC Coordinator  
Department of Mechanical Engineering

## Coordinator

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