

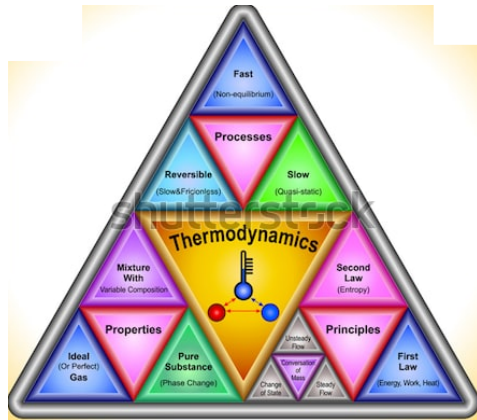


**One Week Online Faculty Development  
Programme**

**on  
THERMODYNAMICS & ITS  
APPLICATIONS**

**20<sup>th</sup>-25<sup>th</sup> January 2021**

**Sponsored by  
Faculty Development Cell, AICTE  
(Under Technical Teachers Training Scheme)**



**Organised by  
Department of Mechanical Engineering,  
JNTUA College of Engineering,  
Ananthapuram, &  
Directorate of Faculty Development & IQAC,  
JNTUA, Ananthapuram, A.P.**

[www.jntua.ac.in](http://www.jntua.ac.in)  
[www.jntuacea.ac.in](http://www.jntuacea.ac.in)

**Chief Patron**

**Prof. A. ANANDA RAO**

Vice Chancellor i/c, JNTUA, Ananthapuram

**Patron**

**Prof. M. VIJAYA KUMAR**

Registrar, JNT University Anantapur  
Ananthapuram, A.P.

**University Coordinator**

**Prof. G. PRASANTHI**

Director,  
Faculty Development & IQAC  
JNT University Anantapur  
Ananthapuram, A.P.

**Prof. K. GOVINDA RAJULU**

Principal,  
JNTUA College of Engineering,  
Anantapur, A.P.

**Dr. B. CHANDRA MOHANA REDDY**

Associate Professor & Head,  
Department of Mechanical Engineering,  
JNTUA College of Engineering,  
Anantapur, A.P.

**Programme Coordinator**

**Dr. D.R. SRINIVASAN**

Assistant Professor,  
Department of Mechanical Engineering,  
JNTUA College of Engineering,  
Anantapur, A.P.



**AICTE SPONSORED ONLINE ONE WEEK  
FACULTY DEVELOPMENT  
PROGRAMME**

**ON  
THERMODYNAMICS & ITS  
APPLICATIONS**

**20<sup>th</sup>-25<sup>th</sup> January 2021**

**ONLINE REGISTRATION LINK**

<https://forms.gle/fRW5ijVFWYYdpThW9>

**Last Date of Registration: 17-01-2021**

Confirmation to the participants on 18.01.2021

Address for communication

**Dr. D.R. Srinivasan**

Assistant Professor,  
Department of Mechanical Engineering,  
JNTUA College of Engineering,  
Anantapur

Contact Nos: 9440606546, 9347581392

email address: drsrinivasan.mech @jntua.ac.in

## About the Institution

JNTUA College of Engineering, Ananthapuramu, is one of the oldest premier colleges in south India, with illustrious alumni. The college has celebrated its diamond jubilee in the year 2006 and has an excellent atmosphere for advancement of one's knowledge. In the year 2008 the college has become a constituent college of the newly formed JNTUA, Anantapur is well connected with major cities like Mumbai, Hyderabad, Bangalore and Chennai by rail and road. It is very near to places of tourist interest like Lepakshi, Hampi, Belum caves and Puttaparthi.

## About the Department

The Department of Mechanical Engineering has been in existence since 1946, the inception of the college. This Department was shifted to present campus in the year 1958. All laboratories of the department are well equipped with the state of art equipment. The Department maintains standards on par with other premier institutions in the country. The Department is offering Undergraduate course in Mechanical Engineering, Post Graduate course with following specialisations Refrigeration & Air-Conditioning, Energy Systems, Advanced I.C. Engines, Product Design, Advanced Manufacturing Systems, Quality Engineering & Management.

## About the Programme

Thermodynamics is science of energy transfer and its effect on the physical properties of substances. It is based upon observations of common experience which have been formulated into thermodynamic laws. These laws govern the principles of energy conversion. The applications of the thermodynamic laws and principles are found in all fields of energy technology, notably in steam and nuclear power plants, IC engines, gas turbines, air-conditioning, refrigeration, gas dynamics, jet propulsion, compressors, chemical process plants and direct energy conversion devices.

## Objectives

To enable participants with latest trends in the field of thermodynamics & its applications.

The participants are familiarised with various cycles of thermodynamics.

The participants simulate actual working conditions of various thermodynamic cycles in virtual laboratory.

To prepare outcome-based course curriculum on thermodynamics & its applications

After this course participants can deliver lecture in a better way as they gain both theoretical & practical knowledge of the content in subjects like thermodynamics, thermal engineering etc.

This course also enables the participants to choose a suitable latest topic for research.

## Pre-Requisite:

Basic knowledge of Thermodynamics.

## Major Course Contents:

Thermodynamic Cycles, Concepts & Laws  
IC Engines, Performance and Emission in IC Engines

Steam Generators & Advancements

Air Compressors

Thermal Analysis of Heat Exchangers

Thermal Design Aspects

Thermal Power Plants

Mixed Convection

Refrigeration & Air-Conditioning

CFD & its Applications

Fuel Cells

Latest Trends & Applications in Thermal Engineering

**Registration Fee:** No registration fee

**Mode of Delivery:** Live web session through Google meet. Participants will be provided link through WhatsApp before a day of the workshop.

## Resource Persons

From IITs/NITs/Central & State Universities and eminent persons from industry.

## Target Participants:

Faculty members from AICTE approved institutions and maximum number of Participants allowed is 100 (Candidates will be selected on 'first-come, first serve' basis)

**Requirements to get E-Certificate:** Smart phone with good internet facility, Minimum 80% attendance is required for the whole course, Minimum 60% marks should be obtained in the Final test to be conducted online at the end of FDP.