CARE

COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi | Affiliated to Anna University, Chennai
Accredited by NAAC with 'A' Grade
#27, Thayanur, Tiruchirappalli - 620009

About Trust

G.Narayanan Educational Trust was formed in 1999. The trust's vision includes

- Offering Quality Education
- Providing World Class Infrastructure
- Fostering Creative Thinking
- Encouraging Innovation
- Creating the best Ambience for Education & Research
- Multi-Disciplinary Education

Out of this vision CARE Group of Institutions, India's first Integrated Campus was estabilished.

About Institution

CARE offers application-oriented courses with hands-on training in one of the most conducive learning environments in India. It inculcates the value of life beyond curriculum and explores the full potential of students.

CARE believes in partnerships between industry, government, and higher education institution to yield countless innovations. Our faculty value corporate partnerships for the insights they contribute as much as for the support they provide.

Institute Vision

Transform Lives through Education & Research.

About Department

The department has a mix of students with truly diverse backgrounds, with a desire to compete globally. The students of the department are exposed to a strong foundation in core Mechanical Engineering subjects through various courses, internships, industrial visits and mini projects.

The students are also exposed to the latest developments in the industry through guest lectures and seminars by eminent technocrats and academicians. Our Alumni have found employment with reputed core industries as well as MNCs.

Department Vision

To produce globally competent Mechanical Engineers who can cater to the contemporary needs of industry and society.

Strength of the Department

- Qualified faculties
- Highly modernised laboratories with Compound Microscope, SEM and XRD
- Activity Based Teaching
- Industrial visits & In-plant Training
- Hands on training using lab beyond syllabus
- State-of-art software's like AutoCAD, Edge CAM, Creo, ANSYS and MATLAB
- Encourages students to participate in competitions in National Institutions
- MoU's with Deccan IT Technology and Frigate Pvt. Ltd.
- Research and Development activities Entrepreneurship Development.

Chief Patron

Shri. B. Prative Chend
Chief Executive Officer (CEO)
CARE Group of Institutions

Patron

Dr. S. Shanthi, Principal
Dr. A. Pasumpon Pandian, Dean (R&D)

Convenor

Dr. D.R. Rajkumar,
Associate Professor & Head,
Department of Mechanical Engineering,

Coordinators

Dr. K. Kannan, Professor,
Dr. B. Gobalakrishnan, Asst. Prof.,
Department of Mechanical Engineering,

Online Faculty Development Program on

Engineering Thermodynamics

(28.08.2023 to 01.09.2023)

Session Time

FN (10.00-11.30 AM)

AN (02.00-03.30 PM)

Syllabus Covered

Anna University, VTU, Bangalore & JNTU, Hyderabad.

Organized By
Department of Mechanical Engineering

In Association with

ISTE — Indian Society for Technical Education

SAE INDIA — Society of Automotive Engineers INDIA

INSTITUTION'S INNOVATION COUNCIL (Ministry of HRD Initiative)

Objective of FDP

Participants will gain knowledge about the fundamentals and applications of the laws of thermodynamics. They will learn to analyze the performance of thermal devices, explore the significance and applications of the second law of thermodynamics, interpret properties of steam using steam tables and Mollier charts, understand macroscopic properties of ideal and real gases, and analyse Power cycles and Refrigeration cycles.

Outcomes of FDP

- Apply the zeroth and first law of thermodynamics for closed and open engineering systems.
- Apply second law of thermodynamics to calculate entropy and availability.
- Calculate the property change of steam in the process using steam tables and Mollier chart.
- Apply the gas laws in computing the macroscopic properties of ideal and real gases and gases mixtures.
- Calculate the properties of gas mixtures and moist air and its use in psychometric processes.
- Discuss and derive the thermodynamics relations for property calculations.
- Analyse gas power and refrigeration cycles.

Important Information

- This FDP is intended for all engineering students, research scholars, faculty, and industrialists.
- Seats are limited to 100 participants on a first-come, first-served basis, and registration will be confirmed through email.
- 90% attendance is mandatory for certificate.

Topics to be covered

Day -1

Thermodynamic laws, Steady flow energy equation and Thermodynamics Processes.

Day -2

Application of Second law, entropy, availability and irreversibility.

Day -3

Steam formation and its thermodynamic properties, work done & heat transfer.

Day -4

Properties of ideal & real gases, gas mixture & psychrometric and power cycles.

Day -5

Thermodynamics relations and Refrigeration Cycles.

Resource Persons

External Expert Members

- Dr S. Suresh
  National Institute of Technology, Trichy
- Dr.M. Chandrasekar
  BIT, Anna University,Trichy
- Dr. J. Kingston Barnabas,
  AAM Engineering College, Kovilvenni.
- Dr.S.Rajkumar,
  A.V.C. College of Engineering,
  Mayiladuthurai

Internal Expert Members

- Dr D.R. Rajkumar
  Associate Professor & Head,
- Dr K. Kannan,
  Professor
- Dr B. Gobalakrishnan,
  Assistant Professor
  Department of Mechanical Engineering,
  CARE College of Engineering,
  Trichy

Registration fee

- **Students & Research Scholars: Rs.100/-**
- **Faculty members & Industrialist: Rs. 250/-**

Bank Details

Name : CARE College of Engineering
Bank name : Indian Bank
Branch : Cantonment, Trichy.
Account No : 854664709
IFSC Code : IDIB000T027

Registration Link & QR Code

https://bit.ly/carefdp

Last date for Registration

26.08.2023, Saturday,

Take Away

- **Lecture notes and PPT**
- **YouTube lectures**
- **Certificate - Hardcopy**

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