PMRF-ISSS Teaching Programme

Prime Minister Research Fellowship students' teaching requirement facilitated by the Institute of Smart Structures and Systems

Module PMRF- ISSS015/2023

Basic Thermodynamics

Name of the PMRF student

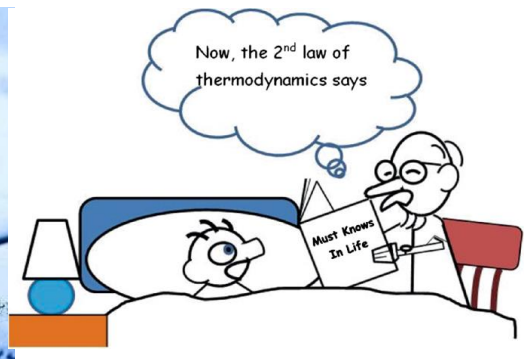
Sujita Srichandana Dey, IISc Bangalore

Required background of the students taught

Anyone with aptitude to learn basics of thermodynamics. Can be relevant to people from mechanical, chemical, civil, Aerospace, Interdisciplinary departments.

Online session coordinator

Will be chosen from the list of registrants



Details of the content of the module

The science of thermodynamics examines the ideas of heat, temperature, and the interactions between heat and other types of energy. The fundamental principles of the course are the laws that control this interconversion.

The primary objectives therefore are to introduce you to various laws of thermodynamics and their applications in power plants and internal combustion engines. The content includes the following key components:

- Introduction of Thermodynamics
- Zeroth law of Thermodynamics
- First law of Thermodynamics (Closed System)
- First law of Thermodynamics (Open System)
- Second law of Thermodynamics
- Introduction to Entropy
- Thermodynamic Relations
- Air-Standard Cycles
- Gas Power Cycles
- Vapor power Cycles

Schedule of the module

Registration Deadline 15th August 2023

Course starts on 19th August 2023

Course ends on 18th November 2023 (tentative)

Lectures uploaded every Saturday – 8:00PM

Learning efforts required : 5-6 hrs per week

Meeting link : Will be shared later

Contact email ID: isss.forum@gmail.com

Registration link:

https://forms.gle/Y2FEyq88ky6LGSeJ6