

**PROGRAM STRUCTURE  
I SEMESTER**

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
1	192TE1T01	Advanced Fluid Mechanics		✓		Students are able to acquire skills in analyzing various fluid flow problems using differential equations of fluid mechanics
2	192TE1T02	Computational Fluid Dynamics	✓			Students are able to demonstrate technical skills related to understand the basics of computational fluid dynamics and enabling them to be employed as Computational fluid dynamics engineer.
3	192TE1E01	Advanced IC Engines, Electric and Hybrid vehicles	✓			Students are able to acquire skills related to the engine performance by using turbo charging and super charging and enabling them to be employed in automotive industries.
4	192TE1E02	Gas Dynamics	✓			Students are able to acquire skills in analyzing the behavior of isentropic flow of ideal gases and enabling them to be employed in thermal power plants.
5	192TE1E03	Cryogenic Engineering	✓			Students are able to acquire skills related to the technical knowledge of cryogenic fluids, purification systems and cryogenic refrigeration systems. Enabling them to be employed in refrigeration industries.
6	192TE1E04	Advanced Thermodynamics	✓			Students are able to acquire skills related to various thermodynamic systems and power cycles and enabling them to be employed as Thermodynamic engineer.

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7	192TE1E05	Gas Turbines		✓		Students are able to acquire skills related to performance characteristics and applications of gas turbines.
8	192TE1E06	Alternative Fuel Technologies		✓		Students are able to acquire skills in analyzing potential alternative liquid and potential gaseous fuels.
9	192TE1E07	Energy Conservation and Management	✓			Students are able to acquire skills related to the importance of energy management in the functional area and carrying out budgeting and risk analysis of projects enabling them to be employed in Energy sector.
10	192TE1E08	Theory and Technology of Fuel Cells	✓			Students are able to acquire skills related to the fuel cells and its characteristics, fuel processing and its availability and enabling them to be employed in solar energy-based companies
11	192HS1T01	Research Methodology and IPR		✓		Students can gain knowledge about the methods of study, observation, comparison and experiment along with different types of Intellectual property rights
12	192TE1L01	Computational Fluid Dynamics Lab-I	✓			Students are able to demonstrate technical skills related to understand the basics of computational fluid dynamics and enabling them to be employed as Computational fluid dynamics engineer.
13	19TE1L02	Thermal Engineering Lab -1	✓			Students are able to acquire skills to enhance the knowledge about IC Engines and calculating COP and enabling them to be employed in automotive industries.

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14	192MC1A01/ 192MC2A01	English for research paper writing		✓		Students are able to demonstrate communication writing skills to express fluently in writing form of language which is very much essential for the career growth in research
15	192MC1A02/ 192MC2A02	Disaster Management	✓			Students are able to acquire skills related to interpretation of various disasters in the environment and prepares one to prevent, face and combat them enabling them to be employed in various organizations.
16	192MC1A03/ 192MC2A03	Sanskrit for Technical Knowledge				
17	192MC1A04/ 192MC2A04	Value Education				
18	192MC1A05/ 192MC2A05	Constitution of India				
19	192MC1A06/ 192MC2A06	Pedagogy studies				
20	192MC1A07/1 92MC2A07	Stress management by YOGA				
21	192MC1A08/ 192MC2A08	Personality development through life enlightenment skills				

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22	192MC1A09/ 192MC2A09	Soft skills		✓		The students are able to demonstrate Business Communication skills to analyze the mistakes in Body language, formal written communication in the organizations.

## II SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
23	192TE2T03	Advanced Heat Transfer	✓			Students are able to acquire skills related to the conduction in steady and unsteady cases and solve 2-D steady and transient heat conduction problems and enabling them to be employed in piping design industries.
24	192TE2T04	Thermal Measurements and Process Controls	✓			Students are able to acquire skills related to the knowledge of various temperature measuring devices and enabling them to be employed in thermal power plants.
25	192TE2E09	Equipment Design for Thermal Systems	✓			Students are able to acquire skills related to the design of heat exchangers, vaporizers, evaporators enabling them to be employed in thermal power plants.
26	192TE2E10	Solar Energy Technologies	✓			Students are able to acquire skills related to the concepts about the types of solar collectors and their measuring principles and impart the knowledge of the various types of thermal energy storage methods and its applications enabling them to be employed in solar based industries.
27	192TE2E11	Advanced Power Plant Engineering	✓			Students are able to acquire skills related to performance, operational characteristics and instrumental techniques used in power plants enabling them to be employed in power plants.

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28	192TE2E12	Combustion, Emissions and Environment		✓		Students are able to acquire skills related to principles and thermodynamics of combustion, emissions and pollution control.
29	192TE2E13	Jet propulsion and Rocket Engineering	✓			Students are able to acquire skills related to the knowledge of the turbojet propulsion system and the principles of jet propulsion, rocketry and nozzle theory enabling them to be employed in defense and aircraft building organizations.
30	192TE2E14	Automotive Engineering	✓			Students are able to acquire skills related to the concepts of fuel and ignition system, lubricating and cooling system, transmission and steering system enabling them to be employed in automotive industries.
31	192TE2E15	Modeling of I.C. Engines	✓			Students are able to acquire skills related to the concepts of modelling and performance of I.C. Engines enabling them to be employed in automotive industries.
32	192TE2E16	Renewable Energy Technologies		✓		Students are able to acquire skills related to the concepts of direct and indirect energy conversion methods.
33	192TE2L03	Computational Fluid Dynamics Lab-II	✓			Students are able to demonstrate technical skills related to understand the concepts of advanced computational fluid dynamics and enabling them to be employed as Computational fluid dynamics engineer.
34	192TE2L04	Thermal Engineering Lab -II	✓			Students are able to acquire skills to enhance the knowledge about advanced IC Engines enabling them to be employed in automotive industries.

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
35	192TE2P01	Mini Project with Seminar	✓			students will be able to demonstrate problem identification, analysis, design solutions or applications in thermal engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.

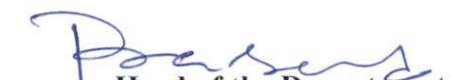
## III SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
36	172TE3C01	Comprehensive Viva-Voce	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in thermal engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
37	172TE3R01	Seminar – I	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in thermal engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
38	-----	Project Work Part - I	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in thermal engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.

## IV SEMESTER

S. No	Course Code	Name of the Course	Employability	Skill Development	Entrepreneurship	Remarks
39	172TE4C02	Seminar – II	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in thermal engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
40	172TE4P01	Project Work Part - II	✓			Students will be able to demonstrate problem identification, analysis, design solutions or applications in thermal engineering domain through the acquired technical, cognitive, communication and creative skills to address societal needs.
<b>Total</b>		<b>40</b>	<b>20</b>	<b>14</b>		

  
Program Coordinator

  
Head of the Department

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