

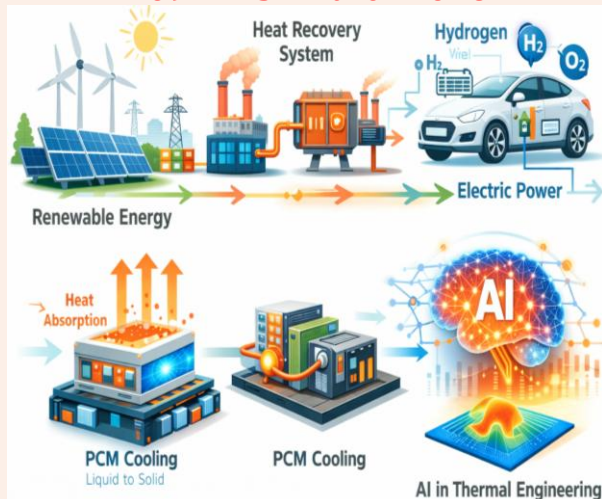


## A One-Week Faculty Development Program (Online Mode)

On

## Next Generation Thermal Engineering: Advanced Cooling Technologies and Energy Solutions with AI Assisted Insights

09<sup>th</sup> - 13<sup>th</sup> March 2026



Organized by

**DEPARTMENT OF MECHANICAL ENGINEERING  
GAYATRI VIDYA PARISHAD  
COLLEGE OF ENGINEERING  
(Autonomous)**

Approved by AICTE & Affiliated to Andhra University,  
Visakhapatnam from 2022-23  
Accredited by NAAC at A++ Grade  
for 7 years in the 3<sup>rd</sup> cycle  
[www.gvpce.ac.in](http://www.gvpce.ac.in)

## ABOUT GVP COLLEGE OF ENGINEERING

Gayatri Vidya Parishad College of Engineering (GVPCE) was established in 1996 by Gayatri Vidya Parishad, a premier educational trust, to promote technical education. The GVPCE(A) offers 11 B.Tech., 5 M.Tech programs and MCA with an annual intake of 1380. The college is accredited by NAAC with 'A+' Grade. The institute received funds of Rs. 5 Crores under Technical Education Quality Improvement Program (TEQIP), S.C-1.2 by MHRD, Government of India. The Department of Science & Technology, New Delhi, sanctioned the Scientific & Industrial Research Centre (SIRC) to support the research activities. The college was granted autonomy by UGC in 2009. The college adopted Outcome Based Education methodology for all programmes from the academic year 2013-14. The college received Rs. 12 Crores from funding organizations DST / NBHM / ARB / AICTE etc. towards 45 R&D projects. Research and Consultancy projects, dedicated faculty, well equipped laboratories, good infrastructure and meritorious students are the major strengths of the Institution. The institute encourages collaborative learning between industry and academia as a means of reinforcing its curriculum with practical and real world experiences.

## ABOUT THE DEPARTMENT

The Department of Mechanical Engineering has been functioning since the inception of Gayatri Vidya Parishad College of Engineering in 1996, offering B.Tech with an initial intake of 60 students, which has now increased to 120. The department boasts a team of highly qualified faculty members, many of whom hold Ph.D.s from prestigious institutes such as IITs, NITs, and universities in India & abroad. In 2020, the department launched a B. Tech Mechanical Engg. (Robotics) program with an intake of 60 students. Additionally, it offers an M. Tech program in Robotics and Artificial Intelligence with an intake of 12. The department has secured several R&D and consultancy projects worth ₹240 lakhs and has published 246 papers in reputed national and international journals and conferences. It holds 14 patents, with 7 granted, 4 published, and 3 filed. The department has been accredited by NBA five times. The department also houses a Centre for Machinery Condition Monitoring, providing solutions to high-vibration problems. Additionally, it is well-equipped with CNC machining and Advanced Robotics laboratories. Towards skill development, the department has collaborated with APSSDC t-SDI, SIEMENS, and Dassault labs with a total worth ₹2 crores.

### Chief Patron:

**Prof. Dr. Ing. P.S. Rao**  
President, Gayatri Vidya Parishad

### Patrons :

**Sri. D. Dakshina Murthy**  
Vice - President, Gayatri Vidya Parishad

**Prof. K. P. R. Sastry**  
Vice - President, Gayatri Vidya Parishad

**Prof. P. Somaraju**  
Secretary, Gayatri Vidya Parishad

### Chair person :

**Prof. A.B. Koteswara Rao**  
Principal, GVPCE (A) &  
Professor, Dept. of Mechanical Engineering  
**Programme Advisory Committee :**

**Dr. A. Syamsundar**  
Vice Principal, GVPCE (A)

**Dr. C.V.K. Bhanu**  
Dean, Internal Quality Assurance Cell (IQAC)

**Dr. M. V. S. Sairam**  
Dean of Academic Programs-UG

### Convener :

**Dr. B. Govinda Rao**  
Professor & Head, Dept. of Mechanical Engineering

**Program Co-ordinator:**  
**Dr. Yamala Muralikrishna**  
Associate Professor, Dept. of Mechanical Engineering  
**Program Co-coordinator**  
**Dr. V. Sireesha**  
Assistant Professor, Dept. of Mechanical Engineering

### Organising Committee Members :

**Mr. B. Ajit**, Assistant Professor  
**Mr. P. Sateesh**, Assistant Professor  
**Dr. A. Shanmukh Sudhir**, Assistant Professor  
**Mr. Y. Datta Bharadwaz**, Assistant Professor  
**Miss. A. Padmaja**, Assistant Professor  
**Mr. Y. Prasad Reddy**, Assistant Professor  
**Dr. Anand Solanki**, Assistant Professor

## ABOUT THE PROGRAM

The primary objective of this Faculty Development Programme (FDP) is to familiarize faculty and research scholars with emerging trends in advanced cooling technologies and alternative energy systems, focusing on modelling, simulation, and system-level understanding. Participants will gain knowledge of modern cooling techniques, including phase change-based cooling and heat pipes, essential for electronics, energy systems, and high-heat-flux applications. The programme also covers modelling and simulation of sustainable energy systems, such as hydrogen fuel cells and Organic Rankine Cycle (ORC) systems, enabling performance analysis, design optimisation, and system integration. Machine Learning-assisted approaches are introduced to enhance simulation, optimise systems, and support data-driven analysis without replacing physics-based modelling. Overall, the FDP bridges fundamental thermal sciences with advanced computational and data-assisted techniques, equipping participants for high-impact research, interdisciplinary collaboration, and effective postgraduate teaching in thermal and energy engineering.

## LEARNING OBJECTIVES

- Provide exposure to renewable and sustainable energy systems, waste heat recovery, and hydrogen fuel cell technologies as key solutions for next-generation energy and thermal systems.
- Familiarise participants with advanced cooling technologies for effective thermal management of electrical and electronic systems, with special emphasis on phase change-based cooling methods.
- Introduce the role of Machine Learning-assisted approaches in modelling, simulation, and optimisation of thermal and HVAC systems while maintaining a strong foundation in thermal sciences.

### NOTE:

**Session Timings:** 11:00 PM to 12:30 PM  
02:00 PM to 03:30 PM

## RESOURCE PERSONS AND TOPICS



**Chief Guest**

**Dr. Sudipta De**  
Professor,  
Department of Mechanical  
Engineering, Jadavpur  
University



Sustainable Energy  
Transition:  
Indian Perspectives



**Dr. T. Srinivasa Rao**  
Professor & Head  
Department of Mechanical  
Engineering, NIT Jalandhar.



Energy Systems  
for Renewable  
Sustainable Applications



**Dr. Jahar Sarkar**  
Professor,  
Department of Mechanical  
Engineering, IIT  
BHU Varanasi



Waste Heat  
Recovery System



**Dr. Naga Srinivasulu**  
Professor,  
Department of Mechanical  
Engineering,  
NIT Warangal



Hydrogen Fuel Cell  
Technology as an  
Alternate Source of Energy



**Dr. A. Brusly Solomon**  
Associate Professor,  
Department of Mechanical  
Engineering,  
Chennai



Heat Pipes as  
Advanced  
Cooling Technologies



**Dr. Bukke Kiran Naik**  
Assistant Professor,  
Department of Mechanical  
Engineering,  
NIT Rourkela



Machine learning  
Applications Thermal  
engineering



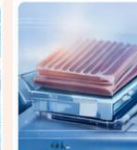
**Dr. Rajesh Akula**  
Assistant Professor,  
Department of Mechanical  
Engineering,  
IIEST - Shibpur



Advanced Phase-  
Change Thermal  
Solutions for  
electronics



**Dr. Y. Muralikrishna**  
Associate Professor,  
GVPCEA



Thermoelectric  
Cooling

## THE PROGRAMME IS OPEN TO:



Faculty



Research  
Scholars



PG Students



Industry  
Professionals

## REGISTRATION FEE

Industry Professionals - Rs. 1000/-  
Faculty - Rs. 500/-  
Research Scholars & PG Students - Rs. 300/-

### NOTE:

The number of participants is limited to 200.

**Participants** with at least **80% attendance** and a minimum of **50% marks** in the final assessment will receive e-certificates and a **refund** of the **registration fee**.

**REGISTRATION HERE**



<https://forms.gle/EkUwSASQ3YGfa1917>

**Last date for registration: March 2<sup>nd</sup>, 2026.**

## PAYMENT DETAILS:

**Name of the Account holder:**  
HOD Mechanical Engg. Dept.  
GVPCE(A)  
**Account Number:**  
191912010000245

**Name of the Bank:** Union Bank  
**IFSC code:** UBIN0819191



## CONTACT DETAILS

Dr. Y. Muralikrishna ☎ 9493103029

Dr. V. Siresha ☎ 9948641756

✉ [nexgen\\_te@gvpce.ac.in](mailto:nexgen_te@gvpce.ac.in)