



A One-Week National Workshop (Online Mode)

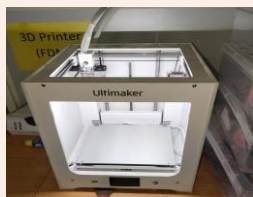
On

Next Generation Smart Manufacturing & Industry 4.0

15th - 19th December 2025



Industry 4.0



3D Printer (FDM)



6-Axis ROBOT



4-Axis ROBOT

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 3rd cycle

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 seven 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.

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ABOUT THE WORKSHOP

The Workshop on Next Generation Smart Manufacturing and Industry 4.0 focuses on emerging technologies transforming modern manufacturing systems. It aims to provide participants with insights into the integration of Artificial Intelligence, Robotics, Additive Manufacturing, and Cyber-Physical Systems in industrial applications. Sessions will highlight the role of Industry 4.0 and 5.0, digital product passports, and cybersecurity in smart factories. Participants will also explore robot kinematics using Robo Analyze and the future of metal additive manufacturing. Through expert talks, the workshop bridges the gap between academia and industry, equipping attendees with the knowledge and skills essential for next-generation intelligent manufacturing. Delivered in a convenient virtual format, this workshop combines interactive live sessions, engaging demonstrations, and in-depth case studies to provide a comprehensive understanding of Smart Manufacturing and Industry 4.0. Attendees will gain actionable insights into how these technologies can be effectively implemented in automation and manufacturing, empowering them to stay ahead in the era of Industry 4.0.

RESOURCE PERSONS

- ❖ Dr. S. Vinodh, Professor, Department of Production Engineering, NIT, Tiruchirappalli
- ❖ Dr. Sree Kumar M, Professor, Department of Mechanical Engineering, IITDM, Kancheepuram
- ❖ Dr. Anup Nandy, Associate Professor, Department of CSE, NIT Rourkela
- ❖ Dr. Rajeevlochana G Ch, Asst. Professor, Department of Mechanical Engineering, Amrita Vishwa Vidyapeetham, Bengaluru
- ❖ Dr. Santhakumar Mohan, Professor, Department of Mechanical Engineering, IIT Palakkad
- ❖ Dr. Vibhor Pandhare, Asst. Professor, Department of Mechanical Engineering, IIT Bombay
- ❖ Prof. Velagapudi Vasu, Professor, Department of Mechanical Engineering, NIT Warangal
- ❖ Dr. B. Vaidyanathan, Technical Director, Interface Design Associates Pvt. Ltd., Thane
- ❖ Dr. Senthilkumaran K, Associate Professor, Department of Mechanical Engineering, IITDM, Kancheepuram
- ❖ Dr. Krishna Kishore M, Asst. Professor, Department of Mechanical Engineering, SVNIT, Surat

TOPICS

- Additive Manufacturing and Industry 4.0
- Integration of AI and Robotics in Smart Manufacturing
- Advances in Industrial Robotics Applications with Deep Learning Techniques
- Robot Kinematics using Robo Analyzer
- Role of mobile manipulators in Industry 4.0 and 5.0.
- Cyber Physical Systems: Foundation and Applications
- Implement of Industry 4.0 and 5.0 in manufacturing
- Metal Additive Manufacturing: Past, Present & the Future
- Digital Product Passport: an insight into traceability issues in Smart Manufacturing Systems
- Cyber security aspects and Smart Manufacturing upgradations in Metal Additive Manufacturing

NOTE:

Timings of sessions: 1:00 PM to 2:30 PM
3:00 PM to 4:30 PM

LEARNING OBJECTIVES

- Understand the concepts and technologies of Smart Manufacturing and Industry 4.0/5.0
- Explore Key Applications of Smart Manufacturing and Industry 4.0/5.0
- Analyze Real-World Case Studies and Solutions
- Leverage Online Tools for Collaboration and Learning

WHO CAN ATTEND

- Students, Research Scholars, Teaching Faculty, Industry personnel

REGISTRATION FEE

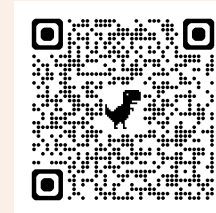
- Industry Persons - Rs. 1000/-
- Faculty - Rs. 500/-
- Research Scholars & PG Students - Rs. 300/-
- UG Students - Rs. 200/-

NOTE:

- The number of participants is limited to 200.
- Last date for registration: December 10, 2025.
- Participants with at least 80% attendance and a minimum of 50% marks in the final assessment will receive e-certificate and refund of the registration fee.

REGISTRATION LINK

https://docs.google.com/forms/d/e/1FAIpQLSe5gSP7agiWAuoO3Nk2zHJxPINGJh80wvqllIyca_Iv0I5E07w/viawform?usp=header



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

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