



DATES : 7 - 11 SEPTEMBER 2026

PEDAGOGY & PRACTICE IN INDUSTRIAL AUTOMATION & DRONE TECHNOLOGY

Course Preview

This 5-Day Faculty Development Program (FDP) focuses on Industrial Automation & Drone Technology, covering key concepts and practical applications of PLC, SCADA, and HMI systems used in modern Industries. This program aims to equip faculty members with foundational knowledge and hands-on exposure to automation technologies to enhance teaching and align academic learning with current industry practices.

ABOUT GVPCE (A):

Gayatri Vidya Parishad College of Engineering (GVPCE) was established in 1996 by Gayatri Vidya Parishad, a premier educational Society 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 was granted autonomy by UGC in 2009. The college is accredited by NAAC with 'A++' Grade in 3rd Cycle for 7 years. The college is affiliated to Andhra University, Visakhapatnam from 2022-23. (affiliated to JNTUK, Kakinada up to 2021-22). 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 adopted Outcome Based Education for all programmes from the academic year 2013-14. The college received Rs. 13.86 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 CEMS

Centre of Excellence in Maritime Shipbuilding (CEMS) is a not-for-profit skill development institute. established in 2017 under the Sagarmala project by the Ministry of Shipping, with support from MoPSW, Indian Register of Shipping, and Siemens. CEMS provides industry-focused training in shipbuilding, marine, heavy engineering, and manufacturing sectors, supporting the PM Gati Shakti initiative. With 22+ advanced labs and 100+ industry and academic partnerships, CEMS delivers practical, job-oriented training. Over 21,000 students have been trained so far, with a strong placement record of around 90% in specialized programs.



EXPERT-LED
SESSIONS



HANDS-ON
LEARNING



PRACTICAL
INSIGHTS



NETWORK &
COLLABORATE

Target Audience

The Faculty of the AICTE approved Engineering Colleges and Industry professionals are eligible to attend this programme.

The seats are limited to 50.

The candidate selection is purely on first-come first serve-basis. The selected candidates will be informed through e-mail.

LEARNING OBJECTIVES

This 5-Day Faculty Development Program (FDP) focuses on Industrial Automation & Drone Technology, is designed to equip faculty members of Electrical & Electronics Engineering (EEE), Electronics & Communication Engineering (ECE) and Mechanical Engineering (MECH) with the knowledge and practical insights needed to integrate modern automation technologies into teaching, research and industry collaboration.

Upon Completion, participants will be able to:

- Understand the fundamentals and evolving trends in industrial automation on **Siemens PLCs, SCADA, HMI**.
- Apply automation concepts to electrical and electronics systems, bridging theory with **real-world industrial practices**.
- Design and deliver modular, **hands-on pedagogical experiments** that strengthen faculty teaching effectiveness and align student learning with industry readiness.
- Integrate **Siemens automation software** into curriculum development, research projects, and consultancy initiatives.
- A hands-on introduction to quadcopter drone technology, Cygnus (C++) control systems and real-world drone programming applications.



PROGRAM SCHEDULE

5 Days | Full-Time Immersive | GVPCE(A) Campus

Day 1 – GVPCE (A) Faculty - K. Srikanth

Session 1	Introduction to Automation and its types
Session 2	Automation pyramid, classification, example industries & case studies
Session 3	Industrial case studies & Hands-on session
Session 4	Hands-on session

Day 2 – CEMS Trainer - T.V.Sowmya Srilalitha

Session 1	Introduction to PLC Architecture
Session 2	Introduction to Siemens S7-1200 PLC & Siemens TIA Portal
Session 3	Simple LAD instructions, Timers, Counters
Session 4	Writing simple ladder logic (start/stop motor, lamp blinking)

Day 3 – CEMS Trainer - T.V.Sowmya Srilalitha

Session 1	Introduction to SCADA, its architecture & TIA WINCC Professional
Session 2	Integration of PLC, SCADA & HMI. HMI design principles (user friendly screens, alarms, trends)
Session 3	Creating HMI screens(start/stop buttons, status indicators)
Session 4	Linking PLC tags to SCADA/HMI & Hands-on

Day 4 – CEMS Trainer - T.V.Sowmya Srilalitha

Session 1	Faculty teams design a PLC, SCADA, HMI integrated project. <i>Exercise 1: Automated Bottle Detection, Rejection system</i>
Session 2	Exercise 2: Conveyor control system
Session 3	Teams test their project live
Session 4	Future Trends (Industry 4.0,5.0)

Day 5 – GVPCE (A) Faculty - T.Vamsi Krishna

Session 1	Introduction to Drone Technology - Quadcopter
Session 2	Understanding Cygnus software(C++ platform) - Customized quadcopter control
Session 3	Programming drones for various applications & Hands-on session
Session 4	Wrap up: Q&A, Feedback & Certificates

PATRONS



Prof. P. Srinivasa Rao

B.Tech. (Hons), M.Tech.,
Dr.Ing. (Munich)

President,
Gayatri Vidya Parishad



Prof. P. Soma Raju,

M.A., Ph.D.

Secretary,
Gayatri Vidya Parishad



Sri D. Dakshina Murthy

M.Sc.

Vice – President,
Gayatri Vidya Parishad



Dr. A. B. Koteswara Rao

B.E., M.Tech., Ph.D. (IIT Delhi)

Principal,
Gayatri Vidya Parishad
College of Engineering(A)



Prof. K.P.R. Sastry

Vice-President,
Gayatri Vidya Parishad

ORGANISING COMMITTEE

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Dept. of Mechanical Engineering

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Dr. Deepika Rani

Head, Dept. of ECE

CO-ORDINATOR

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Mr. Livingston Francis

Head- Skilling Programs &
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Dean UG, GVPCE (A)

Cdr. S. Gopi Krishna

Chief Operating Officer, CEMS

Mr. Sabyasachi Majumdar

GM, Technical, CEMS

Mr. Livingston Francis

Head- Skilling Programs & Outreach CEMS

FACULTY PROFILES :



Ms. T.V. Sowjanya Srilalitha

Assistant Manager - Technical Services, CEMS, Vizag

- With over 11+ years of hands-on expertise in Industrial Automation, she has consistently delivered training across diverse industries.
- Strong foundation as an Electronics & Instrumentation Engineer from GITAM College of Engineering, combined with advanced global certifications, she creates with real-time impact.

Core Strengths:

- Industrial Automation (PLC, SCADA, DCS)
- Instrumentation Engineering & Process Control
- Mechatronics & Modular Training Systems
- Strategic Training & Team Enablement.



Dr. Kavirayani Srikanth

- Associate Professor, Gayatri Vidya Parishad College of Engineering (Autonomous), Visakhapatnam.
- M.S., University of Missouri-Columbia (USA); Ph.D., GITAM University
- Strong academic and research foundation
- Senior Member, IEEE; life member of IE(I), ISRDI; ERDA; reviewer for leading international journals.
- Participated in 35+ conferences; and published 20+ journals
- Recipient of Best Paper, Best Poster and ERDA Award for Excellence in Teaching
- Innovation leader: e-Yantra Coordinator, robotics mentor, active in IEEE South Asia; contributed to social impact through eVidyaloka



Dr. Tataverthi Sai Vamsi Krishna

- Assistant Professor at Gayatri Vidya Parishad College of Engineering (A), Visakhapatnam, with expertise in Material Science, CAD, and Robotics.
- Ph.D. in Mechanical Engineering from JNTU Kakinada (2024), specializing in shape memory alloys.
- Research focuses on the synthesis and characterization of Cu-Al-Ag shape memory alloys, including thermo-mechanical treatments and material property optimization.
- M.Tech. in Mechanical Engineering from GITAM Deemed University with a strong academic and research foundation.
- Innovator with two design patents: Automatic Rain Water Control System (2024) and Smart Spectacles for the Visually Impaired (2025).

REGISTRATION PROCESS:

Duly filled-in and scanned application form in the prescribed format signed by the appropriate authorities should be sent through email to kavirayanisrikanth@gvpce.ac.in by 20.08.2026.

Registration fee details:

For Faculty : Rs 8000 + 18% GST = Rs 9,440

Number of seats: 50
(first-come, first-serve basis)

Last date for application:

20.08.2026

Intimation of acceptance:

22.08.2026

Last date for payment:

25.08.2026



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PROGRAM FEE INCLUDES:



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Learning material shared via email



Laptop bag with GVPCE (A) & CEMS logo



Jointly issued certificate by GVPCE (A) and CEMS



DATES : 7.09.2026 TO 11.09.2026

**Venue: Gayatri Vidya Parishad College of Engineering (A),
Madhurawada, Visakhapatnam.**

GVPCE (A)



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