

NEWS LETTER

JULY TO DECEMBER 2025

# ROBOWIZARD

*Issue-1*

**ROBOTICS AND AUTOMATION  
DEPARTMENT**



GOVERNMENT ENGINEERING COLLEGE,  
SECTOR – 28, GANDHINAGAR

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## THE INSTITUTE

Established in 2004, Government Engineering College, Gandhinagar takes pride in its highly motivated students. Our students are life-long assets that help this institute to continuously evolve and work towards its Vision. Approved by AICTE. The College is administrated by Directorate of Technical Education, Gujarat State, and Gandhinagar. GEC Gandhinagar is affiliated to Gujarat Technological University. GEC Gandhinagar offers its students a wide range of courses to choose from. This helps them to become multi-skilled personalities who can handle the challenges that industry and society will pose before them as future engineers. Committed, to deliver excellence in everything that it does, our institute works towards reducing the gap between industry and education. GEC Gandhinagar endeavours to educate its students in a manner that offers them an opportunity not only to excel in academics but to be completely aware of their future industrial needs for professional expertise through innovative and flexible curriculum. This trains the students of this campus to reach their highest potential. The highly dedicated faculty members of GEC Gandhinagar are experts in their professional fields. Their professional skills and industry linkages help the students by grooming them to become competent

engineers who will contribute to the society and economy in the long run.

## INSTITUTE VISION & MISSION

### VISION

To be a premier engineering institution, imparting quality education for innovative solutions relevant to society and environment.

### MISSION

- To develop human potential to its fullest extent so that intellectual and innovative engineers can emerge in a wide range of professions.
- To advance knowledge and educate students in engineering and other areas of scholarship that will best serve the nation and the world in future.
- To produce quality engineers, entrepreneurs and leaders to meet the present and future needs of society as well as environment.

## PRINCIPAL



**Dr. Sweta P. Dave**

### Principal's Message

Dear faculty, staff & students,

“To those who see with loving eyes, life is beautiful.

To those who speak with tender voices, life is peaceful.

To those who help with gentle hands, life is full.

And to those who care with compassionate hearts, life is good beyond all measure!”.

I Dr. Sweta P. Dave as the principal of the prestigious educational organization, Government Engineering college of Gandhinagar, with a compassionate heart invites you to have an initial peak of our organization's vision & values.

Government Engineering College Gandhinagar primarily stands to nurture the shelved potential hidden in the young talent. We intend to provide a platform for the students to let out their

creativity and channelize their knowledge and young inspirational energy.

At GEC Gandhinagar, the joyful experience of academics and the energetic bursts of co-curricular activities integrate to create an all-round experience for fellow students and attendees. Our highly qualified faculties and management makes sure our fellow students become capable to stand out of the competition in the outside world.

We believe in not only educating but also empowering our students to make sure they feel like the representatives of our prestigious organization and create a meaningful experience for them during their time period at the college.

GEC Gandhinagar brings a holistic academic as well as a practical approach for the students to become compatible and knowledgeable to the market needs.

Our Organization involves quality learning combined with practicals to enhance the technical abilities of the students.

“Education is not the learning of facts, but it is the training of the mind that how to think” - Albert Einstein.

And we believe in this statement a lot, our faculties are well qualified and highly trained to deliver the knowledge in a playful form and not letting students just to mug up. At GEC Gn we thrive every- day to make sure our students are always a step ahead.

At last, I want to convey that we focus on the overall development of our students. We also look after the staff members and the college resources to provide students with the highest quality of academics value. I will heartily invite you to join our prestigious organization and become a part of our family.

**DR. SWETA P. DAVE**

Principal  
Government Engineering College, Gandhinagar.

## HEAD OF DEPARTMENT



Dr. M. J. Vora  
Head of Department  
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## HOD'S MESSAGE

Department of Robotics and Automation incepted in the year of 2022 with an intake of 60. Department has well balanced combination of experienced and well qualified faculty members along with the young, dynamic and competent leadership. Department has fully fledged laboratories with state-of-art Experimental Facilities and are armed with the recent software which are highly demanded by the employers. The Department of Robotics and Automation always has its emphasis to impart the quality education considering the recent trends of

current industrial Scenario to make them capable to meet the employers' needs.

## ROBOTICS & AUTOMATION DEPARTMENT

With a view to develop skills and creativity in the modern engineering fields and to enhance collaboration of soft and hard engineering, this program was started in 2022-23 in this Institute. A strong vision for Robotics & Automation engineering aims to be a global leader in innovation, creating competent professionals for Industry 4.0, while the mission focuses on providing quality, project-based education, fostering research (AI, vision systems), developing problem-solving skills, and promoting societal impact through efficient, automated solutions. Key aspects include multidisciplinary learning, industry collaboration, and creating a sustainable ecosystem for robotic innovation and entrepreneurship.

The Fourth Industrial Revolution is driving sweeping transformation to the way we live and work. In this era increasingly powered by advanced technology like Robotics and Automation, all industries are set for new opportunities. Robots hold the promise of moving and transforming materials with the same ease as a computer program transforms data. Robots are equipped with sensors to perceive their environment and actuators to perform particular tasks and can take intelligent decisions with inbuilt controllers. From

assembling to bringing machines to life, Automation and Robotics engineers have been making our lives stress-free through in more ways than we think. Not only do they build, but they also maintain, repair, and develop new models of the machines we use.

One of the most relevant degrees to study in preparation of this envisioned future is Robotics and Automation Engineering. Pursuing a career in Robotics and Automation engineering is no small deal as you will be responsible for several things that make the world a better place. Automation and Robotics engineering is a field of engineering that deals with the design and creation of robots.

# ROBOTICS & AUTOMATION DEPARTMENT VISION AND MISSION

## VISION

To impart quality technical education, training and research in the field of Robotics and Automation with a focus on research & innovation and human values to meet the growing needs of the industries and society.

## MISSION

- To establish a better learning environment to face the upcoming challenges.
- To provide state-of-the-art infrastructure to nurture the inspiration towards advancements in robotics and automation.
- To support the students to focus on research to solve the complex technical problems of current times with collaborative and inter-disciplinary approaches.
- To inculcate social, ethical and entrepreneurial skills among students for their career growth.

## PROGRAM OUTCOMES (PO)

**PO1: Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO2: Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3: Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4: Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5: Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

**PO6: The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO7: Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO8: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PO9: Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10: Communication:** Communicate effectively on complex engineering activities with the engineering

community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12: Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

## **PROGRAM EDUCATIONAL OBJECTIVES (PEO)**

**PEO1:** To impart students with strong and comprehensive knowledge and skills to design, analyse and implement systems to solve real world problems through Automation and Robotics.

**PEO2:** To make graduates equipped with state-of-the-art technology in order to faster innovation, invention and entrepreneurship for societal needs.

**PEO3:** To instil students in multi-disciplinary technologies to demonstrate learning skills needed for a successful professional career through technical expertise, Ethical practices and Team spirit and a concern towards greener society.

## **PROGRAM SPECIFIC OUTCOMES (PSO)**

**PSO 01:** Ability to design and develop robotic systems to reduce human intervention.

**PSO 02:** Ability to undertake higher studies, research and entrepreneurship in the field of Robotics and Automation.

**PSO 03:** Apply software skills in developing algorithms for solving mechanical problems in various fields.

## R&A FACULTIES



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## “RASHTRIYA EKTA DIVAS” SHAPATH

Date: 29<sup>th</sup> October, 2025

Location: Robotics and Automation Department, 8<sup>th</sup> block, 2<sup>nd</sup> Floor, GEC-Gandhinagar, Sector-28.

Taken Pledge on rashtriya ekta divas on 30-10-2025 for celebrating Sardar Vallabhbhai Patel 150<sup>th</sup> Birth Anniversary by faculties and students of Robotics and Automation Department at 11 am.



## TREE PLANTATION

Date: 05/07/2025 and 10/10/2025

Location: Opposite Building No. 03, GEC Gandhinagar, Sector 28

Students and faculty members of the R&A Engineering Department actively participated in a Tree Plantation Drive collaboratively organized by the Gymkhana, NSS, and Eco Club. The event offered a meaningful opportunity for participants to contribute to environmental conservation by planting and nurturing saplings on the campus premises.



## SWADESHOTSAV 2025

Date: 05/12/2025

Location: GMDC Ground, Ahmadabad

On 05/12/2025, faculty member of the R&A Engineering Department attended Swedoshotsav at GMDC Ground, Ahmedabad, along with students. The visit provided students with an opportunity to participate in and experience cultural activities, promoting social awareness, teamwork, and holistic environment.



## START UP CONCLAVE 2025

Date: 23rd and 24th September, 2025

Location: Mahatma Mandir, Gandhinagar

The Robotics & Automation Engineering at GEC Gandhinagar attempted to provide the students about latest updates in innovations and development in entrepreneurship by attending at the Startup Conclave 2025.

On September 23rd and 24th, all students from all semesters, along with faculty members actively participated in the two-day event held in Gandhinagar. This grand conclave, which brought together over a thousand startups, innovators, and investors, offered students a critical exposure to India's dynamic startup ecosystem. Their participation provided invaluable, real-world experience, linking their academic knowledge of advances in Robotics and Automation engineering to the innovative commercial and entrepreneurial opportunities.



# EXPERT LECTURE ON “RECENT TRENDS IN ROBOTICS TECHNOLOGY AND ARTIFICIAL INTELLIGENCE”

[Expert Name: Apurva Oza]

Date: 8<sup>th</sup> October, 2025, Time: 11:30 am to 1:00 pm.

Location: Robotics and Automation Department (8211), 8<sup>th</sup> block, 2<sup>nd</sup> Floor, GEC-Gandhinagar, Sector-28.



## SMART INDIA HACKATHON- 2025 COMPETITION FINAL ROUND - PERFORMANCE EVENT

Date: 15th December, 2025

Location: Sri Sri University, Bhubaneswar, Odisha, India.

Team of 3 students from Robotics and Automation Department stood 1st Runners up team held at Bhubaneswar won prize of Rs. 50,000/- from Gujarat Technological University.





## ROBOFEST 5.0 – IDEATION

2 students of Robotics and Automation Department, Dharmik Vankani from semester-3 and Hetvi Patel from semester-5 have won the prize money of Rs. 50,000/- in Robofest 5.0 for clearing Ideation level.



## INDUSTRIAL VISIT

Location: Amul Fed Dairy, Bhat

Robotics and Automation Department students with two faculty members visited Amul Fed Dairy, Bhat, as part of an Industrial Visit organized by our college, Government Engineering College, Gandhinagar, sector-28. The visit aimed to provide students with insights into industrial automation, large-scale dairy production, and the structured supply chain management that has made Amul the leading dairy brand in India and Asia.



## FACULTY TRAINING DETAILS

- Prof. M. R. Mali successfully completed FDP on “Machine Learning in Industrial IOT” during Dt. 15/09/2025 to Dt.20/09/2025 at A.V.Parekh Technical Institute, Rajkot.



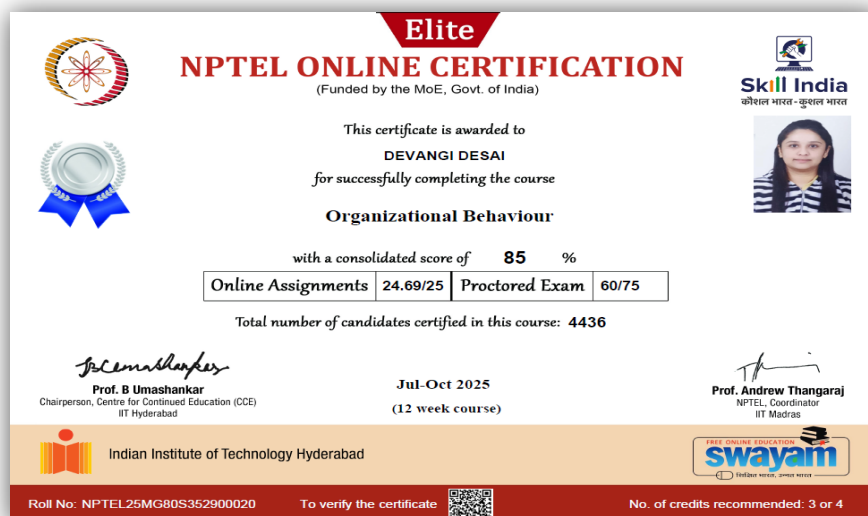
- Dr. D.K. Dave successfully completed FDP on “Digital Manufacturing: A way Forward to Sustainable Growth of India” during Dt. 28/07/2025 to Dt.02/08/2025 at GEC, Bhavnagar.



- Dr. Khushbu Patel successfully completed FDP on “Digital Manufacturing: A way Forward to Sustainable Growth of India” during Dt. 28/07/2025 to Dt.02/08/2025 at GEC, Bhavnagar.



- Prof. Devangi J. Desai successfully completed MOOC FDP course on “Organizational Behaviour” during July-October 2025 and secured 85% score (Elite Certificate).



# *EDITORIAL TEAM*

*TEAM LEADER*

*DR. M. J. VORA*

*(HOD – ROBOTICS AND AUTOMATION  
DEPARTMENT)*

*COORDINATOR*

*PROF. M.R.MALI*

*CO-COORDINATORS*

*DR.D.K.DAVE*

*DR.K.P.PATEL*

*PROF.D.J.DESAI*

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*Thank You*