

future
ready



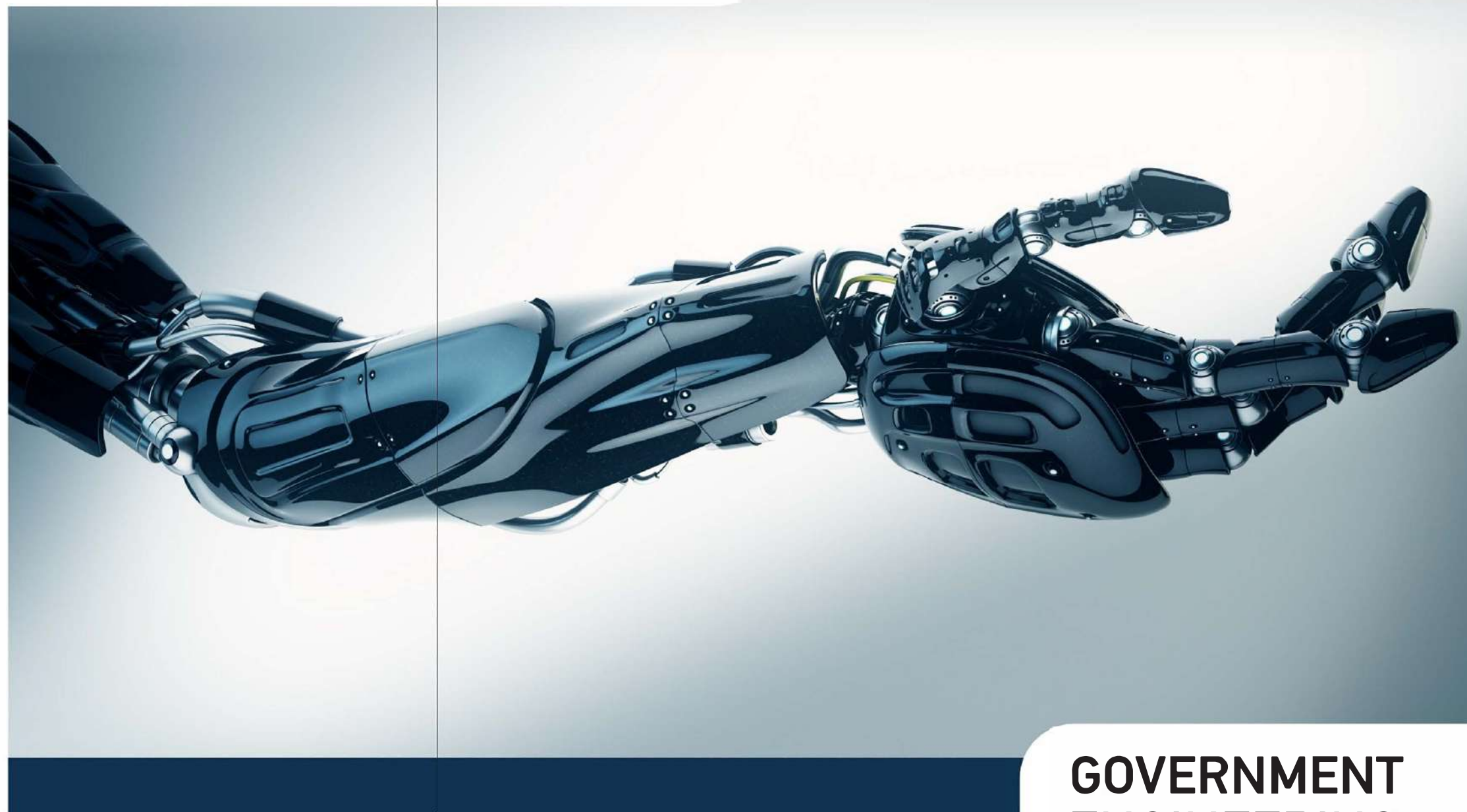
GOVERNMENT ENGINEERING COLLEGE - RAJKOT

Mavdi-Kankot Road, RAJKOT (Gujarat).

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GOVERNMENT ENGINEERING COLLEGE, RAJKOT

Institute Profile

Managed by : Commissionerate of Technical Education, Government of Gujarat, Gandhinagar
 Approved by : All India Council of Technical Education, New Delhi
 Affiliated to : Gujarat Technological University, Ahmedabad
 Campus : Mavdi-Kankot Road, Rajkot
 Phone : +919979287873
 Email : gec_raj_2004@yahoo.co.in
 Web : <http://gecrj.cteguj.in>
 Distance : 11.8 km from Central State Transport Bus Stand; 12.5 km from railway station and 11.7 km from Airport
 Courses : Engineering
 Branches : Computer Engineering, Electronics & Communication Engineering, Instrumentation & Control Engineering, Mechanical Engineering, Civil Engineering and Automobile Engineering

About the Institute

Government Engineering College, Rajkot, established in the year 2004 by the Government of Gujarat, is an institute primarily focusing on the field of technical education and research.

From its inception, GEC, Rajkot has grown steadily and is imparting quality technical education and addressing the need for trained and specialized human resources for engineering sector. GEC, Rajkot is growing remarkably well in a vibrant campus currently spread over an area of approximately 40 acres of lush green cover with a beautiful rural setting. The campus is well located and can be reached conveniently.

GEC, Rajkot helps expand the opportunities for students and professionals to develop intellectual knowledge base with leadership skills to compete in global arena. All these are accomplished through multi-disciplinary and well planned undergraduate programmes in engineering. Currently, GEC, Rajkot offers undergraduate programmes under following departments:

DEPARTMENT	YEAR OF ESTABLISHMENT	DEGREE (B.E.)
Civil Engineering	2009	60
Mechanical Engineering	2009	60
Automobile Engineering	2009	60
Computer Engineering	2004	120
Instrumentation & Control	2004	120
Electronics & Communication	2004	120
Total		540



Vision

To provide quality technical education to bring out technically competent, socially responsible, environmentally conscious and ethically sound engineers in tune with India's vision to transform the nation into a developed country.

Mission

To shape our institution to provide high quality technical education to the students, to create vibrant atmosphere to motivate students for learning and to make our institution preferred destination for learners in the field of technical education.



Approved by AICTE

All India Council for Technical Education (AICTE), became a statutory body through an act of Parliament 52, in 1987. It is a national level council for technical education, under Department of Higher Education, Ministry of Human Resource Department. The AICTE approves various programmes under specific categories as per its charter. GEC, Rajkot is approved by the AICTE with affiliation number 1-6601471.



Affiliated to GTU

Gujarat Technological University (An International Innovative University), commonly referred to as GTU, is a statewide university granting affiliation to many engineering, management and pharmacy colleges in the state of Gujarat. The university is headed by Government of Gujarat and came into existence on 16th May, 2007. GEC Rajkot is affiliated to GTU since its inception.



Principal's Message



Dr. G. J. Vala
Principal

As I walk down the hallways of the college everyday, I can hear the chatter of eager minds, the shouts of excitement from the victorious, the thump of feet and the sound of melodious voices harmonizing. The perpetual energy, movement and enthusiasm permeate the atmosphere at Government Engineering College, Rajkot. We are an institution with a difference! We value individualism, creativity and innovation and strive to nurture them in our students.

We aim to not just impart knowledge to the students, but also to inculcate in them - wisdom, compassion and a humanitarian spirit. We have a multi-cultural student population; hence we teach students the importance of tolerance and respecting each other's culture. Discipline, values and integrity are the very foundation of this institution.

Besides rigorous scholastic programmes, we seek to develop and nurture the different facets of an individual. The institution encourages all students to participate in a variety of co-curricular activities. It is important for a student to explore and find their strengths in order to reach their true potential.

As an institution, we think about how to engage students and hold their attention. If a lesson is to be productive, how do we make sure the students actually absorb the topic? With this constant question in our mind we continuously upgrade our teaching tools and techniques. In a technology : prevalent world today, we appeal to young minds by incorporating workshops by experts from industries and academia, finishing schools, practical courses in Siemens Center of Excellence.

Our mission is to continue to do what we have always done: develop this institution and the students with integrity and values; also, to give our students the best opportunities and the best all-round education. Our vision is to produce conscientious, smart and confident citizens of India who will go out into the world and make us proud!



Infrastructure

GEC, Rajkot believes that creating vibrant environment blended with modern technology enhances the spirit and energy level of all learners and inspires them to optimize their learning efforts. In this direction, GEC, Rajkot provides an intellectual ambience in stimulating campus.



LIBRARY

Books : 15788
Journals & magazines : 8
The library holds books, journals, databases, training manuals etc.



LECTURE HALL

Customized lecture halls give the comfortable ambience to the students to learn and develop more. Majority of halls are equipped with projectors having comfortable seating.



CONNECTIVITY

Well managed transportation facilities are available from key routes across the Rajkot by Rajkot Municipal Corporation catering needs of the students

AUDITORIUM

The Auditorium offers seating capacity of 500. It also has a large well decorated basement space which is meant for serving food for the participating delegates as well as for displaying Stalls and Exhibitions.

This centrally air conditioned Auditorium Centre has been conceived to provide an excellent environmental atmosphere surrounded with plush of greenery and ample parking space. It is also well equipped with latest gadgets and digital audio-visual systems.



LANGUAGE LAB

The Language Laboratory aims at building a platform to learn linguistic & soft skills that would enable the students to navigate smoothly & effectively through a wide variety of social & professional situations which in turn would aid them to excel in their respective fields.

It promotes the development of Communication, Problem Solving, Higher Order Presentation, Interview & Group Discussion Skills which would help them to be an asset to the organization they work for.



Wi Fi ENABLED CAMPUS

GEC, Rajkot has well connected 24x7 internet access through wired as well as wifi networks.



Departments

Mechanical Engineering

The B.E. (Mechanical) programme offers a comprehensive fundamental education in mechanical engineering, emphasizing basic sciences and mathematics, followed by engineering sciences and engineering design. The curriculum covers all disciplines of mechanical engineering including thermodynamics, fluid mechanics, heat transfer, solid mechanics, materials, manufacturing, computer aided design and drafting, dynamics, control, mechanical systems and mechanical design.

The major goal of the programme is to provide students with a broad variety of educational experiences: developing their problem-solving skills, challenging them with open-ended problems and design projects, providing opportunity for teamwork, developing their written and verbal communication skills, and making research or independent study experiences available to those students with the desire and capability to make engineers more skilled and more employable.

Computer Engineering

The Computer Science Engineering (CE) Department offers B.E. programme in Computer Engineering. Computer Engineering is the most sought-after branch for the students that come to the Institute. The department has active research interest in various domains like Machine Learning, Data Mining, Computer Networks and Security, High Performance Computing, Unified Hardware Software co-design etc. It has modern computing amenities equipped with the latest tools and technologies. The department has strong collaboration with many research organizations and leading industries like ISRO, PRL, IPR, IIT Gandhinagar, BSNL for academic and research purpose

Civil Engineering

Established in 2009, the department offers a B.E. Civil Engineering with an annual intake of 60 students. The resources at the department, both literary resources as well as equipment in laboratories facilitate the teaching learning process and help students imbibe the theoretical concepts, their real-time implications and their applications. The department also organizes Training Programmes and Workshops for students as well as faculties from time to time which act as a buffer between their transition from students to professionals and introduce them to on-site projects.

Automobile Engineering

Modern automotive industries need experts in vehicle design and manufacture. With this in mind, the Department of Automobile Engineering was established in 2009 to train the students in the area of automobile engineering. Since Rajkot is the automobile hub of Gujarat, this course gains significance for those who are passionate about automobiles.

The department has a team of highly qualified, dedicated and experienced teachers specialized in IC Engines, Alternative, Fuels, Automotive Technology, Automotive Design, Production, Thermal & Electric Vehicles.

With the opening up of R&D and manufacturing plants by global players in various parts of the country and the increase in demand for automotive experts in the domestic and international markets, graduates of automobile engineering have a bright future ahead.

Instrumentation & Control

Instrumentation & Control is an interdisciplinary area. It caters to the need of chemical, fertilizer, petrochemical, oil and refinery, power, textile, plastic, automobile, agriculture, dairy, food processing and manufacturing industries. It also covers robotics, navigation, aerospace and military applications. The under graduate programme of this branch is well appreciated and students are well accepted by the industries. It has state of the art laboratories, which provide an excellent academic environment. The branch has a strong desire of shaping innovative alliance with industry to achieve academic excellence along with up-to-date training on current trends in process automation and industrial networking area.

Electronics & Communication

The Electronics and Communication Engineering Department was established in year 2004. The department has acquired expertise in the area of VLSI Design, Signal Processing, Wireless Communication and Networks, Optical Communication and Networks, Antenna and RF System Design, Image, Speech and Video processing, Testing and Verification of VLSI Design, Reconfigurable Processor Design and Embedded System Design. State-of-art laboratories have been set up in department for Under-Graduate programme and are well equipped with computational facilities and resources both in terms of hardware and software. The department has a blend of experienced and well qualified faculty members having obtained Masters and Ph.D. degrees from premier institutes and have distinction of working with established national and international research organizations.

Faculty members are actively involved in research activities and have many research publications in international & national journals and international conferences to their credit. Faculty members in the department have undertaken many funded research projects, sponsored by the Government and renowned R and D organizations.

Our Pedagogy

Pedagogy is an art and science of teaching. The key features of our pedagogy at institute are:

- Coverage of syllabus within the time frame.
- Student centric approach in teaching; Extra tutorials for weak students.
- Extensive use of audio-visual aids, such as multimedia projector, microphone, etc. to make learning more interesting and easy.
- Extensive use of cutting edge tools like Moodle, NPTEL videos etc.
- Regular quality assessment through mid-semester exams, viva etc.
- Freedom to faculties for implementing innovative ideas in teaching & learning methodologies.
- Students are encouraged to participate in seminars, workshops, projects etc.
- Expert lectures by industry experts & top rated academicians.
- Industrial visits to various industries.
- Special programme for aptitude & interview preparation.



Lab Facilities

The institute has a number of sector relevant laboratories which are well equipped with state of the art equipment, which provides an opportunity to gain hands on experience of the instruments which are used in the industry. With exposure to such great facilities, the students gain invaluable practical knowledge enabling them to meet the industry standards.



AUTOMOBILE



AUTOMOBILE



CIVIL



CIVIL



COMPUTER



COMPUTER

ELECTRONICS
& COMMUNICATIONELECTRONICS
& COMMUNICATIONINSTRUMENTATION
& CONTROLINSTRUMENTATION
& CONTROL

MECHANICAL

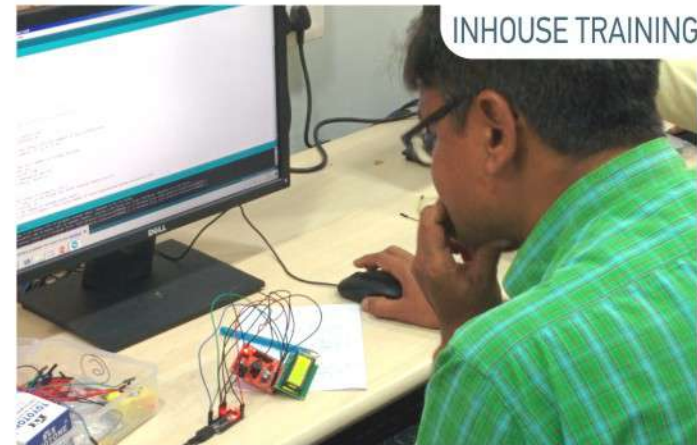


MECHANICAL

Faculty Development Programmes



STTP



INHOUSE TRAINING



CONFERENCE



CONFERENCE



EXPERT LECTURE



EXPERT LECTURE

Siemens-Center of Excellence

The Siemens-Centre of Excellence has been established at GEC, Rajkot to cater the need of skilled man power in the automotive industry. The Siemens Centre of Excellence is established under an agreement between Industries Commissionerate - Government of Gujarat, Siemens Industry Software (INDIA) Pvt. Ltd., Designtech Systems Ltd., India & Government Engineering College, Rajkot. Till date, 911 students from various branches have undergone skill enhancement training.

Major Laboratories in Siemens CoE

1. Product Design and Validation Lab
2. Advanced Manufacturing Lab
3. Automation Lab
4. Electrical Lab
5. Process Control Lab
6. Mechatronics Lab
7. Machine Lab
8. Computer Integrated Manufacturing Lab
9. Rapid Prototype Lab

GEC Rajkot Design various courses for current requirement in industries with collaboration of COE

Course Name	Qualification Requirement
Design Engineer (Mechanical)	B.E. / Diploma (Mechanical, Automobile, Production)
Design Engineer (Electrical)	B.E. / Diploma (Electrical, Electronics & Communication, Instrument & Control)
Draftsman (Mechanical)	ITI (Draftsman)/ Diploma (Mechanical, Automobile, Production)
CAE Analyst	B.E. (Mechanical, Automobile, Production)
Die Designer (Mould)	B.E./ Diploma (Mechanical, Automobile, Production)
Die Designer (Progressive)	B.E./ Diploma (Mechanical, Automobile, Production)
CNC Turning Programmer	B.E./ Diploma (Mechanical, Automobile, Production)
CNC Milling Programmer	B.E./ Diploma (Mechanical, Automobile, Production)
CNC Turning Operator	ITI (Turner, Machinist/ Diploma) (Mechanical, Automobile, Production)
CNC Milling Operator	ITI (Turner, Machinist/ Diploma) (Mechanical, Automobile, Production)
Application Engineer (CIM)	B.E. (Mechanical, Automobile, Production)
CAE Analyst (Motion Simulation)	B.E. (Mechanical, Automobile, Production)
CAE Analyst (Response Simulation)	B.E. (Mechanical, Automobile, Production)
CAE Analyst (Nonlinear)	B.E. (Mechanical, Automobile, Production)
CAE Analyst (Thermal & Flow)	B.E. (Mechanical, Automobile, Production)
CAE Analyst (Dynamic)	B.E. (Mechanical, Automobile, Production)
Design Engineer (instrumentation)	BE/Diploma (Instrumentation and Control, Electronics and communication)
Design Engineer (Electrical)	B.E. / Diploma (Electrical, Electronics & Communication, Instrument & Control)
Automation Engineer	BE/Diploma (Instrumentation and Electronics and Communication and Computer)
Process Instrument Engineer	BE/Diploma/ITI (Instrumentation and Chemical and Mechanical)
Operation and maintenance Engineer (instrumentation)	BE/Diploma/ITI (Instrumentation and Chemical and Mechanical)
Mechatronics Engineer	BE/Diploma/ITI (Instrumentation and Electronics and Computer and Mechanical)

Major Domains & Courses covered at Siemens CoE

Product Design & Validation Lab

Essentials for NX Designers
 NX Basic Design
 Synchronous Modeling Fundamentals
 Synchronous Modeling and Parametric Design
 Intermediate NX Design and Assemblies
 Drafting Essentials
 Mechanical Freeform Modeling
 NX Sheet Metal
 Routing Electrical
 Routing Mechanical
 Large Assemblies Management
 Industrial Design using NX
 PCB Exchange
 Sketching Fundamentals
 Product and Manufacturing Information
 Motion Simulation
 Advanced Simulation Process
 Introduction to Finite Element Analysis with NX
 Advanced simulation Solutions
 Thermal and Flow analysis
 NX Response Simulation
 Laminate Composites
 NX Nastran Advanced Non-linear
 Sensitivity and optimization with NX
 Super Element Analysis with NX
 Advanced Thermal and Flow Analysis
 Advanced Dynamic Analysis with NX
 Introduction to Dynamic Analysis with NX
 DDAM analysis with NX
 Mold Wizard
 Progressive Die wizard

Advanced Manufacturing Lab

NX Manufacturing Fundamentals
 Turning Manufacturing Process
 Fixed Axis and Multi-Axis Milling
 NX CAM Customization
 Post Building Techniques
 Process Designer Basic
 Process Simulate Part Flow
 Process Simulate Human Simulation
 Process Simulate Basic Robotics
 Process Designer for General Assembly
 Variant Definition and Application
 Process Designer for Body-In-White Processing
 Process Simulate Intermediate Robotics
 Process Simulate Advanced Robotics Simulation
 RobCAD Basics
 RobCAD Spot
 RobCAD Paint
 RobCAD Arc
 RobCAD Adv Modelling & Kinematics
 RobCAD OLP
 Plant Simulation Methods, and Strategy
 Plant Simulation Adv Modelling
 Plant Simulation 3D Visualization
 Using Teamcenter
 Introduction to Teamcenter
 Mockup
 Integration for NX users
 Schedule Manager
 Managing Requirements using Teamcenter
 Manufacturing Assembly Process Planning
 Manufacturing Assembly Part Planning
 Managing Systems Design using Tc
 Application and Data Model Administration
 Installation and customization
 Advanced Workflow and Security Admin



Process Instrumentation Lab

Basic of Process Instrumentation
 SIMATIC PCS 7 Basics

Automation Lab

Basics of PLC
 Basic Scada

Mechatronics Lab

Basic Mechatronics

CNC Lab

Basics of CNC Machine
 Numerical Control Programming
 Basics of CNC Machines



Electrical Lab

Basic Course on Ac - Dc Drives
 Basic Power Systems
 Basics of Induction Motors
 Low Voltage Switch gear

CIM Lab

Computer Integrated Manufacturing - (Part 1)
 FLEXTURN-Siemens 828D
Computer Integrated Manufacturing - (Part 2)
 FLEXTURN-Siemens 828D
Computer Integrated Manufacturing - (Part 3)
 Aristo Robot 6 axis
Computer Integrated Manufacturing - (Part 4)
 ASRS
 Assembly Station
 Vision Inspection Sensor
 AGV
 CIM Software



Internships & Visits

Engineering studies have two systems contributing side by side to the enhancement of comprehension and study skills. The first is the theoretical systems; conducted primarily in the form of lectures, tutorials and labs, which are accompanied by frequent consultation of various knowledge sources. The second is the practical system, in the form of Industrial and Research Training, during which the students apply theories learnt.



Industrial Internship is a major component of the learning process. During course of studies, students undergo industrial internship with various engineering companies. On successful completion of the training, a student is required to make a presentation and submit a written report for evaluation. The formal assessment and feedback of the industry experts are also taken into consideration.

The ultimate goal of the training is to accelerate integration into professional careers once the graduate is hired for doing a certain task. This can be achieved through many activities or objectives :

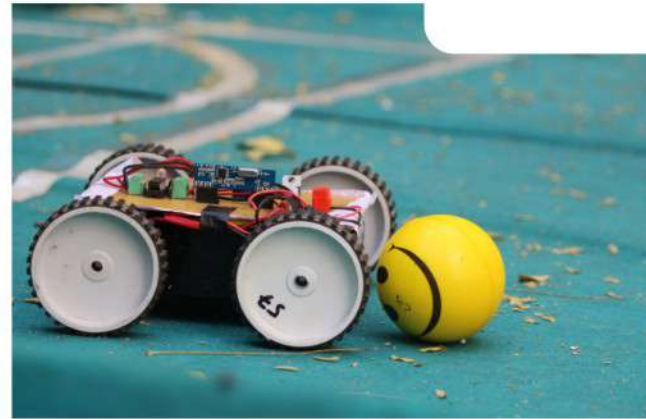
Objectives

- To integrate all learning in real life environment.
- To expose students to all industrial engineering tasks like design, production, maintenance, services, equipment operations, technology and operational techniques.
- To enhance students' scientific and practical capabilities. It makes the student perceive the practical significance of the academic topics handled at the faculty, and direct his thinking to the practical aspects.
- To give the student the feeling of a professional career he/ she is heading for, before graduation. Industrial and Research Training can represent a valuable asset for the graduate and for the employer.
- Companies also gain from the fresh perspective and inputs of the students, which in turn helps in improving their profile among the student community.

Industrial Visits



All round Development of Students



The Training and Placement Cell

The Training and Placement Cell at GEC, Rajkot is established to fulfill two complementary functions - (i) connecting companies to right students and vice versa and (ii) facilitating symbiotic relationship between companies and the institute.

Objectives of T&P Cell

- To provide employment opportunities and world class training to the students in the leading companies.
- To assist the students for campus placement interviews.
- To assist the students for higher education.
- To help student develop their aptitude and soft skills.
- To arrange seminar on interview technique and group discussions.

Facilities for Recruiters

Other than a warm welcome, we provide the recruiters with the following aids :

- Large and well ventilated classrooms and halls for pre-placement and written tests.
- Air-conditioned Rooms for GD and PL.
- Hi speed internet connectivity.
- Photocopying facilities.
- Student volunteers for prompt action on the day of visit.

The Training & Placement Cell manages the entire process of placement starting from identifying the organizations, inviting them to the campus, providing them all information, helping students prepare, coordinating logistics during the placement, and taking care of follow - ups. The Placement Committee plays the major role aptly supported by other faculty members and administrative staff. The companies are encouraged to communicate with Officer - Training & Placement for initial discussions and subsequent communication for placement procedures.

Mr. Hitarth Buch
T & P Officer
Email : tpo@gecrajkot.ac.in

Mr. Jay Pandya
Asst. T & P Officer
Email : tnpgecrajkot@gmail.com



Recruiters @ GEC Rajkot

The placement initiatives at Government Engineering College, Rajkot has attracted a good number of companies from various engineering sectors. All our students managed to bag substantial job profiles at prestigious organizations. Institution has received accolades and good industry vibes, in terms of alumnus performance. Since its inception, following companies have participated in Placements process:



