



GOVERNMENT ENGINEERING COLLEGE, MODASA

SINCE 1984



EC ENGINEERING DEPARTMENT

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Prof. C. R. Parekh

MESSAGE FROM THE HEAD OF DEPARTMENT

Electronics & Communication Department

Dear Students & Faculty members, Warm greetings to all.

The Electronics & Communication Engineering Department was established in the year 1984 and is considered one of the oldest and most successful concrete pillars of Government Engineering College, Modasa. The department offers a Bachelor of Engineering in Electronics & Communication with an intake capacity of 30 students. The department has highly qualified faculty members and all 16 laboratories are equipped with the latest technology equipment and instruments. The department provides teaching in the area of Analog and Digital Communication, VLSI Design, Embedded Systems, Signal Processing, Antenna and Microwave Engineering, and Microprocessors. The Department of Electronics & Communication Engineering has a vision to deliver technical programs that meet the changing needs of society and industry, preparing determined and goal-oriented engineers with high ethical values and strong analytical skills.

The Department of Electronics & Communication Engineering emphasizes developing technical skills and creating awareness about the needs of industries through industry-institute interaction, technical seminars, workshops, and specialized training in thrust areas. Students are encouraged to think innovatively through project works and research in fields like satellite communication and wireless networks, with the department providing a full-fledged departmental library and computer center to support overall personality and technical development.

The Electronics & Communication Engineering program is committed to maintaining high academic standards and quality assurance. The department consistently works towards excellence in technical education and infrastructure to ensure our students remain in tune with the rapid advancements in the global electronics field.

ABOUT THE INSTITUTE

Government Engineering College, Modasa was established in 1984 under the Directorate of Technical Education, Gujarat State, Gandhinagar in North Gujarat region with a view to spread out technical education in the region and hence promote industrial development. The institute was affiliated with Hemchandracharya North Gujarat University (HNGU), Patan from 1984 to 2007. The institute is affiliated to Gujarat Technological University; Ahmedabad from 2008. It is recognized by All India Council for Technical Education (AICTE), New Delhi.

The institute was started with two undergraduate courses, with an intake of 60 each. At present it runs seven under graduate courses and two post graduate courses. Each department has well established laboratories, computer centers and well qualified staff.

VISSION AND MISSION

VISSION

To be a Leading Institution on Ensuring Academic Excellence, Research, Nurturing Innovation and Entrepreneurial Attitude to produce competent technocrats for service to Nation.

MISSION

- To be a student centric institute imbibing experimental, innovative and lifelong learning skills, addressing societal problems.
- To create a conducive ecosystem for research, innovation and extension services.
- To inculcate entrepreneurial attitude and values amongst learners.
- To collaborate with Industries and other institutions to strengthen symbiotic relations.
- To mentor aspiring Institutions to unleash their potential, towards nation building.



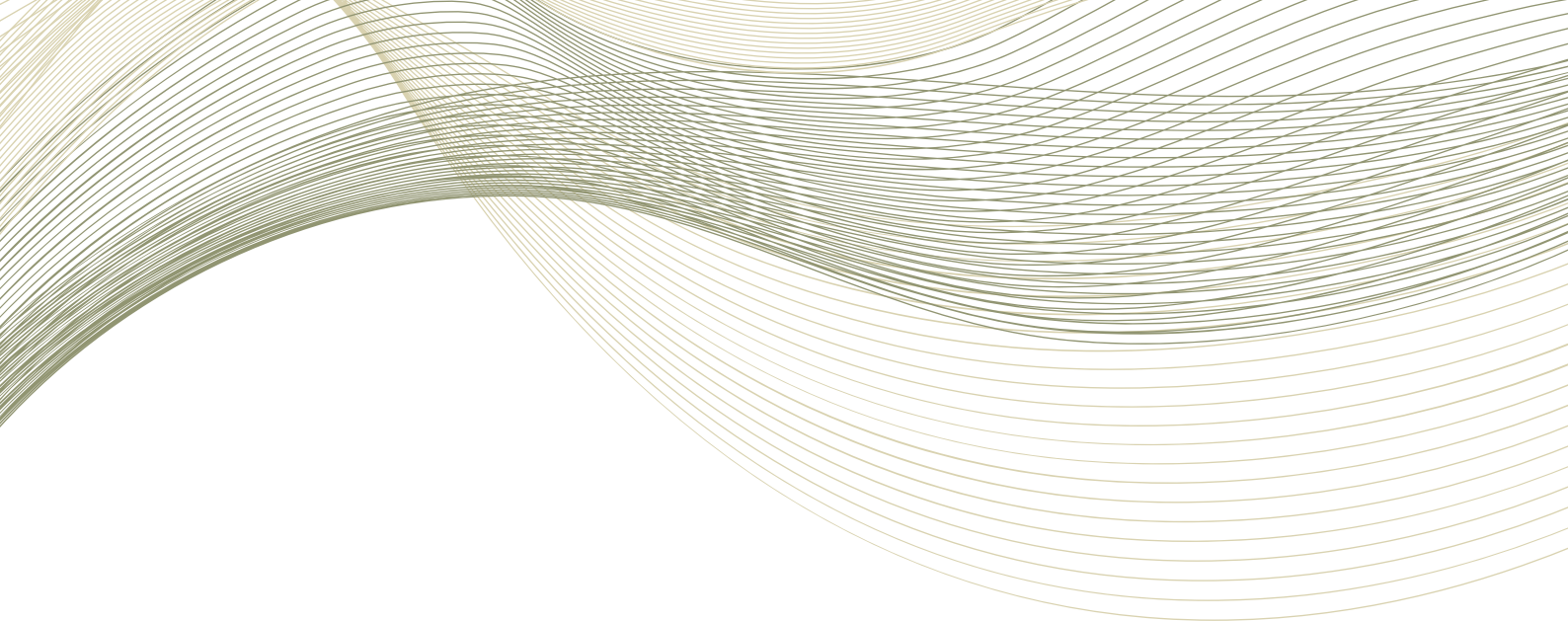
ABOUT THE DEPARTMENT

➤ ELECTRONICS & COMMUNICATIONS DEPARTMENT

The department of Electronics & Communication was established in the year 1984 is one of the oldest and successfully running the engineering branch of G.E.C. Modasa. The Department offers a four-year course in electronics and communication with 120 intakes.

The department was established with the mission to deliver technical programs and services to meet the changing needs of the society and industry, thereby contribute to the overall techno-economical development of the state. The department is persistently committed to enhancing technical knowledge with high ethical values.

The department of E.C. is accommodated in building No. 4. It has laboratories in thrust areas of Analog and Digital Electronics, Communications, Antenna, Microwave, VLSI Design, and Signal Processing. Department has a Computer Center with the latest computer facilities. All labs are well equipped with the latest types of equipment to keep the students in tune with the advancement in the field of Electronics & Communication. The department is also equipped with a full-fledged departmental library.



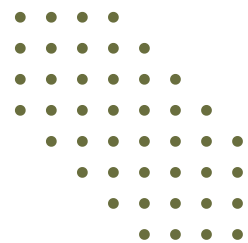
VISSION AND MISSION OF THE DEPARTMENT

VISSION

To strive for academic excellence, enhance industry- institute interaction to create competent technocrats in relevant areas for addressing ever changing needs of society.

MISSION

- To ensure dissemination of knowledge through effective teaching and learning process.
- To strengthen collaboration with industries.
- To prepare the students with multidisciplinary competence for their successful career and service to the society.



FACULTY AND STAFF (EC ENGINEERING)

DR. BHARAT J. SHAH

Designation : Principal
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PROF. CHANDRESH R. PAREKH

Designation : Associate Professor and Head
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PROF. (DR.) NIRAV D. PATEL

Designation : Assistant Professor
Qualification : Ph.D.
Experience : 15 Years
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PROF. (DR.) NITINKUMAR J. BATHANI

Designation : Assistant Professor
Qualification : Ph.D.
Experience : 10 Years
Area of Interest : Antenna, Freq. selective surface and absorber design
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SHILPA K RANA

Designation : Assistant Professor
Qualification : M.Tech (ECSE)
Experience : 11 Years
Area of Interest : RF and Microwave
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MR. KETU RAMANBHAI PATEL

Designation : Assistant Professor
Qualification : M.E. (CSE)
Experience : 12 Years
Area of Interest : Analog and Digital Communication, Wireless Communication, Electromagnetics
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DR. BHAVIK ARVINDBHAI BRAHMBHATT

Designation : Assistant Professor
Qualification : Ph.D.
Experience : 07 Years
Area of Interest : Power Electronics, Digital Signal Processing, Embedded System
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SAMEER H. MANSURI

Designation : Assistant Professor
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Experience : 10 Years
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PRIYANK V PATEL

Designation : Assistant Professor
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Website : <https://sites.google.com/view/priyankpatelgec/home>



MANISH CHAUHAN

Designation : Assistant Professor
Qualification : M. E.
Experience : 05 Years
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Linear IC
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LABORATORIES



ANALOG ELECTRONICS AND DIGITAL ELECTRONICS LABORATORY

Analog Electronics and Digital Electronics laboratory provides the platform for the students to understand the behavior of the circuit related to Analog Electronics and Digital Electronics. The laboratory is equipped with the different experimental set-ups like Lab Station, digital trainer kits provided to the students to do hands on for observing the response of the circuits and to carry out the testing of the circuits.

VLSI & EMBEDDED SYSTEMS LAB

It provides the platform for the students to understand the architecture and interfacing of microprocessor, microcontroller, Field Programmable Gate Array (FPGA) and Complex Programmable Logic Device (CPLD). This laboratory is equipped with the different experimental set-ups. Facility is provided to the students to do hands on for testing their programming codes



DIGITAL COMMUNICATION LAB

It deals with the analysis and manipulation of signals. The equipments like Digital Storage Oscilloscope (DSO), Lab Station Amplitude, frequency and phase shift keying Trainer Kits and modulation kits for mobile communication, AM-FM Modulation-Demodulation kits are available in this laboratory.

GOVERNMENT ENGINEERING COLLEGE,MODASA

EC ENGINEERING DEPARTMENT

NEWSLETTER



Inside The Issue

• Departmental Activities

The Departmental Activities takes initiatives for overall development of students and give them a practical orientation to inculcate employability skills which will help them to face this competitive world. The department activities conducted are focused on imparting technical knowledge along with its application in the practical world. Simultaneously personality development of students is also given priority. It includes major activities conducted such as Quiz Competition, Expert Lectures, Workshops, Seminars, Industrial Visits.

• Faculty Activities

Educational activity of the Faculty is performed through studies, including the special forms of study for knowledge upgrading and continuous professional education and training. Scientific work is performed through basic, applied and development research, which is carried out for the purpose of developing the profession, raising the quality of teaching, upgrading the scientific and professional level.



GTU Robotics Club Orientation and Awareness Seminar

The seminar was organized on 21/09/2023. The student volunteers from GTU Robotics Club had delivered a seminar on introduction to the Robotics club. The seminar was unique as it was organized for the students of GECM by the student volunteers of GTU to enrich the ecosystem of robotics. This informative session motivated the students to be a part of such events. They inquired about the robotics workshop and were eager to enroll in it. The program was coordinated by Prof. M. M. Madhikar, Prof. M. J. Vanjara and Prof. P. M. Mistri. More than 80 students have actively participated in the seminar.

DEPARTMENTAL ACTIVITIES

TREE PLANTATION DRIVE

Active participation from faculty, staff, and students is vital for building a greener campus and instilling a shared responsibility towards nature. To turn this commitment into action, the institution organized a campus plantation drive on August 26, 2023. Event participants worked together to plant native trees, enhance green cover, and foster long-term environmental stewardship across the community. This collective effort not only beautified the campus landscape but also reinforced the importance of sustainable living. By engaging directly in ecological restoration, the university continues to inspire its members to actively protect and nurture the natural environment for future generations.



SUMMER INTERNSHIP TRAINING

In collaboration with industry Leon's integration, a 15 days training program as per GTU guidelines was conducted in July 2023 for 7th semester students. Faculties Prof. P. V. Patel and Prof. B. A. Brahmbhatt mentored and trained them to make them industry ready for further internship in industry in semester 8. This work was evaluated by industry experts and certificate was awarded. The entire training was carried out under aegis of GOG.



FACULTY ACTIVITIES

ACHIEVEMENTS

Prof.N.D.Patel has published a research paper on "Innovative approach of spectral efficiency optimization over various pilot reuse factors" in International Journal of Electrical and Electronics Research (IJEER), ISSN: 2347-470X, November 2023.

Prof. N. D. Patel has published a research paper on "The novel approach to spectral efficiency enhancement using massive MIMO in LoS" in International Journal of Mobile Network Design and Innovation, ISSN: 2347-470X, August 2023.

Prof. B. A. Brahmbhatt, Prof. P. V. Patel and Prof. M. S. Chauhan has published a research paper on "Modified level shift modulation technique for modular multilevel converter with reduced reduced switching frequency" in 1st international conference on emerging technologies and science (ICETES), August 2023.

PARTICIPATIONS

Prof. N. D. Patel has participated in NPTEL-AICTE faculty development program on Soft Skills during October 2023 organized by SWAYAM NPTEL.

Prof. N. D. Patel has participated in NPTEL-AICTE faculty development program on Principles and Techniques of Modern Radar Systems during October 2023 organized by SWAYAM NPTEL.

Prof. S. H. Mansuri has participated in NPTEL-AICTE faculty development program on The Joy of Computing using Python during October 2023 organized by SWAYAM NPTEL.

Prof. S. H. Mansuri has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. K. R. Patel has participated in NPTEL-AICTE faculty development program on Education Leadership during October 2023 organized by SWAYAM NPTEL.

Prof. K. R. Patel has participated in NPTEL-AICTE faculty development program on The Science of happiness and Wellbeing during October 2023 organized by SWAYAM NPTEL.

Prof. B. A. Brahmbhatt has participated in NPTEL AICTE faculty development program on The Joy of Computing using Python during October 2023 organized by SWAYAM NPTEL.

FACULTY ACTIVITIES

PARTICIPATIONS

Prof. B. A. Brahmbhatt has participated in NPTEL AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. P. V. Patel has participated in NPTEL-AICTE faculty development program on The Joy of Computing using Python during October 2023 organized by SWAYAM NPTEL.

Prof. P. V. Patel has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. P. V. Patel has participated in ATAL faculty development program on silicon chip design from circuits to system during 18/12/2023 to 23/12/2023 organized by SCET Surat.

Prof. P. V. Patel has participated Gujarat fab training teach the trainer on semiconductor technology & manufacturing with hand on training during 6/11/2023 to 10/11/2023 organized by IIT Bombay.

Prof. M. S. Chauhan has participated in faculty development program on Inculcating Universal Human Values in Technical Education during 29/05/2023 to 02/06/2023 organized by AICTE.

STUDENT ACHIEVEMENTS



Goswami Paavangiri Pragneshgiri (210160111003) of Electronics and Communication Engineering department Secured 1st prize in Javelin Throw competition in Inter Zonal GTU Tournament on 6/11/2023

CHESS EVENT INTER ZONAL GTU LEVEL

The GECM chess team has secured runners up position at the Zone level competition held in August 2023. Solanki Jayvirsinh (EC), Singh Vivekkumar (EC) of semester 7, Patel Rajkumar (CE), Divyesh Thakur (CE) and Panchal Jignesh (IT) of semester 5 participated and won in this event.



STUDENT ACHIEVEMENTS

BADMINTON INTER-ZONAL GTU LEVEL

The team GECM as usual maintained its winning streak in badminton. The countless hours of practice resulted in exceptional results at GTU Zonal level. List of winners at Zonal Badminton Tournament conducted at GPERI Mehsana is as follows.

- Mishra Nikhil (7-EC)
- Vivek kumar singh (7-EC)
- Samarth Raval(7-CE)
- Gautam Bramhankar(5-EL)
- Akash Kapoor(7-CE)
- Shamual Bolcani (5-CE)



KABADDI INTER ZONAL

The following team members of GECM has performed exceptionally well in kabaddi inter zone and zonal level. They were applauded for their performance.

Mishra Prashant (3-CE) (selected at AIU nationals),
Goswami Paavan (5-EC),
Ashish Rajput (5-Mech),
Rahul Singh (5-Mech),
Jayesh Parmar (3-EC),
Roshan Bhadoriya (3-IT),
Mitesh Dodiya (5-Civil),
Bhavin Ukani (5-Civil),
Nikul Patel (5-Mech),
Paliwal Manish (5-Mech),
Patel Varun (5- Auto) and
Vaghasiya Sanket (7-Mech)

FACULTIES PURSUING PH.D

Faculty Name	Research Area	Ph.D Pursuing from University
Prof. Shilpa Rana	Microwave Filter Design	Gujarat Technological University
Prof. Sameer Mansuri	Antenna Design	Gujarat Technological University