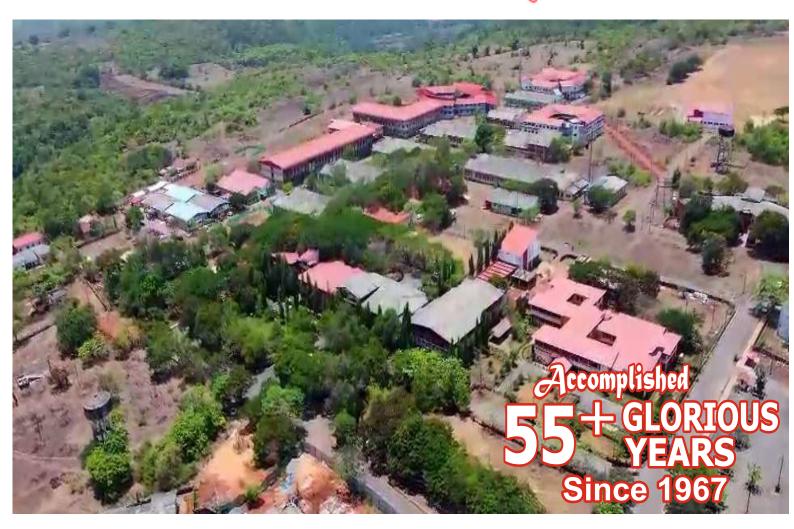


# Government of Goa Goa College of Engineering Farmagudi - Goa



गोवा अभियांत्रिकी महाविद्यालय, फार्मागुडी - गोवा



# Prospectus ED OF ENGINEEDIN

MASTER OF ENGINEERING ADMISSION-2025

# **Online Application**









Application Fees - Rs. 1200/-

Upload Scani Photo, Markscard & Pay Online Application Fee Final Submission

### **FACULTY OF ENGINEERING**

### Affiliated to Goa University

	<b>Under Graduate Programs</b>
1.	B.E. Civil Engineering
2.	B.E. Mechanical Engineering
3.	B.E. Electrical & Electronics Engineering
4.	B.E. Electronics & Telecommunication Engineering
5.	B.E. Computer Engineering
6.	B.E. Information Technology & Engineering
7.	B.E. Mining Engineering
8.	B.E. Electronics Engineering (VLSI Design & Technology)

## **Post Graduate Programs**

1.	M.E. Geotechnical Engineering
2.	M.E. Industrial Engineering
3.	M.E. Electronics Communications & Instrumentation Engineering
4.	M.E. Power & Energy Engineering
5.	M.E. Computer Science & Engineering (AI & ML)
6.	M .E.Industrial Automation & Robotics
7.	M.E. Structural Engineering
8.	M.E. Information Technology & Engineering

Ph.D. Research Centre		
A.	Civil Engineering	
B.	Mechanical Engineering	
C.	Electrical & Electronics Engineering	
D.	Electronics & Telecommunication Engineering	

### **Director of Technical Education**

Dr. Vivek B. Kamat

### **Principal**

Dr. M.S. Krupashankara

# **Head of Departments**

Civil Engineering	Dr. Ganesh N. Hegde
Mechanical Engineering	Dr. Mahesh N. Dhawalikar
Electrical & Electronics Engineering	Dr. G.R.Kunkolienkar
Electronics & Telecommunication Engineering	Dr. H.G.Virani
Computer Science & Engineering	Dr. J. A. Laxminarayana
Information Technology	Dr. Nilesh B. Fal Dessai
Mining Engineering	Dr. Ulhas Sawaiker

### Institute Faculty on Goa University Academic Panels

Dr. M.S. Krupashankara

Dean- Faculty of Engineering

Chairman, Board of Studies

Civil Engineering	Dr. Nisha Naik	Electronics & Telecommunication Engineering	Dr. Nitesh B. Guinde
Mechanical Engineering	Dr. Jagannath B. Hirkude	Electrical & Electronics Engineering	Dr. Anant J. Naik
Computer Engineering	Dr. J.A. Laxminarayana	Electronics Engineering (VLSI Design & Technology)	Dr. Nitesh B. Giunde

# GOA COLLEGE OF ENGINEERING, FARMAGUDI, PONDA GOA

# Prospectus for Admissions to Master of Engineering (M.E.) 2025-26 CONTENTS

Sr. No.	Title	Page. No.
1)	Admission Schedule	2
2)	Introduction	3
3)	Distribution of Seats	4
4)	Eligibility for Admission	5
5)	General Rules of Admission	10
6)	Group Wise Seat Allotment	17
7)	Details of Fees and Refund	20
8)	Academic Term and Examinations	
9)	Conduct Rules	
10)	Details of the Departments (Annexure – A)	
11)	Details of College Faculty Members (Annexure - B)	
12)	Important Contacts (Annexure – C)	
13)	M. E Admission Committee- 2025-26	
PROFORMA FOR CERTIFICATES		
1)	Annexure – 1: SC/ST Certificate	38
2)	Annexure – 2: OBC Certificate	39
3)	Annexure – 3: Sponsorship Certificate	40
4)	Annexure – 4: EWS Certificate	41
5)	Annexure – 5: Undertaking by Student	42

#### 1. Admission Schedule

Start of receipt of application for M.E. programs with and without GU-QET	3 <sup>rd</sup> July 2025 (Thurs)
Last date of receipt of applications with and without GU-QET	15 <sup>th</sup> July 2025 (Tue)
Goa University - Qualifying Entrance Test (GU-QET) Schedule	25 <sup>th</sup> July 2025 (Fri) &
	26 <sup>th</sup> July 2025 (Sat)
Display of Merit list for candidates who are eligible for admission without GU-QET in relevant program	04 <sup>th</sup> August 2025 (Mon)
Admission schedule for candidates who are eligible for admission without GU-QET in relevant program	05 <sup>th</sup> August 2025 (Tue)
Display of merit list for candidates with qualifying marks at GU-QET in relevant program	07th August 2025 (Thu)
Admission schedule for candidates with qualifying marks at GU-QET in relevant program	08 <sup>th</sup> August 2025 (Fri)
Last date for Cancellation of Seats with Full Refund as per AICTE	11 <sup>th</sup> August 2025 (Mon)
COLLEGE OF ADMICCION ACTIVITIES	INCLUDING CUIDANCCIONI OF ADDUCATION

SCHEDULE OF ADMISSION ACTIVITIES, INCLUDING SUBMISSION OF APPLICATION FORMS, DISPLAY OF MERIT LISTS, AND CONDUCT OF GU-QET SHALL BE NOTIFIED ON COLLEGE WEBSITE (<a href="https://www.gec.ac.in\_or\_https://gecis.gec.ac.in">https://gecis.gec.ac.in</a>). ALL APPLICANTS SHALL THEREFORE REGULARLY REFER TO THE COLLEGE WEBSITE FOR INFORMATION ON ADMISSION ACTIVITIES

#### Note:

- **a)** Principal, Goa College of Engineering, reserves the right to modify the above schedule depending on prevailing exigency, if any.
- b) FOR CONFIRMATION OF ADMISSION TO THE ALLOTTED PROGRAM, THE CANDIDATE HAS TO MANDATORILY PAY THE FEES ON THE SAME DAY OF SEAT ALLOTMENT.
- c) Admissions to all the courses shall be carried out as per the notified schedule.

#### 2. Introduction

Goa College of Engineering (Government of Goa), GEC is the oldest Engineering College in Goa and was established in 1967 and is affiliated to Goa University.

The campus houses 7 departments namely Civil Engineering, Mechanical Engineering, Electrical & Electronics Engineering, Electronics & Telecommunication Engineering, Computer Engineering, Information Technology and Mining Engineering. The campus also houses student hostels and staff quarters and has general amenities like Bank, Post Office, Medical facilities, Gymkhana, Transport facilities, Co-operative society, Canteen, Central computing facilities.

The College is situated on a nearly 264-acre campus at Farmagudi plateau which is at a distance of 4 kms from Ponda city, 26 kms from Panaji city, 23 kms from Madgaon Railway station and 33 kms from Dabolim International Airport.

#### Vision

A Technical Institute with a Focus on Excellence in Academics, Research, Industry Collaboration, and Nurturing Human Values in Students.

#### Mission

- 1. Formulate & implement curriculum that ensures high academic standards.
- 2. Provide infrastructure that meets academic & advanced research requirements.
- 3. Collaborate with national, international institutions, laboratories and industries through student and faculty exchange programs and internships.
- 4. Undertake consultancy projects that are relevant to the state & nation.
- 5. Impart human values, awareness of environment and sustainable solutions in students and faculty.
- 6. Nurture innovation, entrepreneurship, leadership & resource management skills.

#### **Governing Committee**

Government of Goa has set up a Governing Committee (GC) headed by the Director of National Institute of Oceanography, Goa. The Governing Committee is responsible for overseeing the College activities, guiding the future direction, and fostering an environment in which the College Vision and Mission is achieved thereby ensuring full confidence of the stakeholders. The members of the Governing Committee with their rich experience and background guide the Goa College of Engineering to accomplish a place of eminence in the field of technical education.

#### **Faculty**

The faculty members are recruited through the Goa Public Service Commission as per the qualifications laid down by All India Council for Technical Education (AICTE), New Delhi. In addition to teaching, faculty members are engaged in research, laboratory development and consultancy activities. The department wise list of Faculty members is given at Annexure - A.

#### 3. Distribution of Seats

Sr. No	Name of Programme / Course	Intake
1)	M.E. (Geotechnical Engineering)	18
2)	M.E. (Structural Engineering)	24
3)	M.E. (Industrial Engineering)	18
4)	M.E. (Power & Energy Engineering)	18
5)	M.E. (Electronics Communication & Instrumentation)	15
6)	M.E. (Industrial Automation & Robotics)	18
7)	M.E. Computer Science & Engineering (Artificial Intelligence & Machine Learning)	18
8)	M.E. (Information Technology & Engineering)	18

#### DURATION OF THE PROGRAM

The duration of the above programs shall be for TWO years. However, students registered as per University curriculum, either for all the courses of that semester or part of them and hence take longer time to complete the program, it is a regular program with a duration of THREE years. The college authorities reserve the right to provide option of three years depending on the availability of faculty and infrastructure.

Last date for online submission of Application Form (https://www.gec.ac.in or https://gecis.gec.ac.in) along with the application fee is 15-07-2025 (Tue).

#### 4. Eligibility for Admission

#### **Nationality**

The applicant must be a citizen of India.

# i) ELIGIBILITY FOR CANDIDATES WHO ARE ELIGIBLE FOR ADMISSION WITHOUT GU-QET IN RELEVANT PROGRAM

Students with the Bachelor of Engineering (BE) Degrees (as per LIST I) are eligible to seek admission to above mentioned ME programs, provided they have 50% marks in Bachelor's Degree (45% marks in case of candidates belonging to SC/ST/OBC-NCL) or equivalent CGPA (as per AICTE Handbook 2024-27) WITHOUT the Goa University - Qualifying Entrance Test (GU-QET). The merit list will be based on candidates with GATE score followed by candidates with total marks from Semester V to VIII or equivalent CGPA. Candidates who have qualified GATE (valid score) shall be given preference. The merit list for non-GATE candidates shall be prepared based on Semester V to VIII marks or equivalent CGPA.

# ELIGIBITY FOR GOA UNIVERSITY-QUALIFYING ENTRANCE TEST (GU-QET)

Candidates who have completed 4 year UG Program in Engineering or 3 year UG and 2-year PG program or 5-year Integrated program (UG+PG) in Science-Technology-Engineering- Mathematics (STEM) Programs shall be eligible for admission to Master of Engineering Programs in other discipline provided the candidate qualifies in the Goa University - Qualifying Entrance Test (GU-QET), as per the Curriculum & Credit Framework for Postgraduate Program of University Grants Commission.

Eligibility of 50% marks in Bachelor's degree or Master's degree [45% marks in case of candidates belonging to SC/ST/OBC (NCL) category] or equivalent CGPA are eligible to take the GU-QET.

Merit list for such candidates shall be prepared based on marks obtained in the GU-QET. If more than one candidate has the same score in GU-QET, then candidate having higher total marks/CGPA in Master's Degree [MSc (Semester I-IV)] /BE (Semester V to VIII) will be considered for admission against the vacant seats available, if any, after candidates from the merit lists of programs of the candidates who are eligible for admission without GU-QET in relevant program are given admission.

#### LIST I

- (A) Candidates with the following Bachelor of Engineering degree are permitted to take admission without GU-QET for M.E. in Structural Engineering, M.E. in Computer Aided Structural Engineering and M.E. in Geotechnical Engineering.
  - 1. Building and Construction Technology
  - 2. Civil and Rural Engineering
  - 3. Civil Engineering
  - 4. Civil Engineering with Computer Application
  - 5. Civil Engineering and Planning
  - 6. Structural Engineering
  - 7. Civil Environmental Engineering
  - 8. Civil Engineering (Construction Technology)
  - 9. Civil and Infrastructure Engineering
  - 10. Civil Technology
  - 11. Civil Engineering (Public Health Engineering)
  - 12. Environmental Planning
  - 13. Construction Automation
  - 14. Construction Engineering
  - 15. Construction Engineering and Management
  - 16. Construction Technology
  - 17. Construction Technology and Management
  - 18. Geospatial Technology and Geoinformatics
  - 19. Geo Informatics
  - 20. Environment Engineering
  - 21. Civil and Environmental Engineering
  - 22. Civil Engineering (Environmental Engineering)
  - 23. Civil Engineering Environment and Pollution Control
  - 24. Environment Engineering
  - 25. Environmental Engineering
  - 26. Energy and Environmental Management
  - 27. Environmental Science and Engineering
  - 28. Environmental Science and Technology
  - 29. Civil Engineering (Environmental Engineering)
  - 30. Civil and Water Management Engineering

- (B) Candidates with the following Bachelor of Engineering degree are permitted to take admission without GU-QET for M.E. Computer Science and Engineering (Artificial Intelligence and Machine Learning) and M.E in Information Technology and Engineering.
  - 1. Artificial Intelligence (AI) and Data Science
  - 2. Artificial Intelligence and Machine Learning
  - 3. Computer and Communication Engineering
  - 4. Computer Science and Applied Mathematics
  - 5. Computer Engineering
  - 6. Computer Engineering (Software Engineering)
  - 7. Computer Engineering and Application
  - 8. Computer Science and Biosciences
  - 9. Computer Science and Design
  - 10. Computer Networking
  - 11. Computer Science and Engineering
  - 12. Computer Science and Social Sciences
  - 13. Cyber Physical Systems
  - 14. Computer Science
  - 15. Computer Science and Business Systems
  - 16. Computer Science and Engineering (Internet of Things and Cyber Security Including Block Chain Technology)
  - 17. Computer Science and Medical Engineering
  - 18. Computer Science and Technology
  - 19. Robotics and Artificial Intelligence
  - 20. Computer Science and Systems Engineering
  - 21. 3-D Animation and Graphics
  - 22. Advanced Computer Application
  - 23. Computer Science and Engineering (Internet of Things)
  - 24. Computer Science and Engineering and Business Systems
  - 25. Computer Science and Information Technology
  - 26. Computer Science and Engineering (Artificial Intelligence and Machine Learning)
  - 27. Computer Science and Engineering (Cyber Security)
  - 28. Computer Science and Engineering (Networks)
  - 29. Computer Science and Engineering (Data Science)
  - 30. Computer Science and Engineering (Artificial Intelligence)
  - 31. Computer Technology
  - 32. Computing in Computing
  - 33. Computing in Multimedia
  - 34. Computing in Software

- 35. Electrical and Computer Engineering
- 36. Electronics and Computer Science
- 37. Electronics and Computer Engineering
- 38. Mathematics and Computing
- 39. Software Engineering
- 40. Information and Communication Technology
- 41. Information Engineering
- 42. Information Science and Engineering
- 43. Information Science and Technology
- 44. Information Technology
- 45. Information Technology and Engineering
- (C) Candidates with the following Bachelor of Engineering degree are permitted to take admission without GU-QET for M.E.in Power and Energy Engineering
  - 1. Electrical and Electronics (Power System)
  - 2. Electrical and Electronics Engineering
  - 3. Electrical and Instrumentation Engineering
  - 4. Electrical and Power Engineering
  - 5. Electrical Engineering
  - 6. Electrical Engineering (Electronics and Power)
  - 7. Electrical Instrumentation and Control Engineering
  - 8. Electrical Power Engineering
  - 9. Electrical, Electronics and Power Engineering
  - 10. Electronics Engineering
  - 11. Electronic Instrumentation and Control Engineering
  - 12. Electronic Science and Engineering
  - 13. Electronics and Computer Science
  - 14. Electronics and Control Systems
  - 15. Electronics and Electrical Engineering
  - 16. Electronics and Instrumentation Engineering
  - 17. Electronics Engineering (VLSI Design and Technology)
  - 18. Electronics Instrument and Control
  - 19. Electronics Instrumentation and Control Engineering
  - 20. Electronics System Engineering
  - 21. Electronics Technology
- (D) Candidates with the following Bachelor of Engineering degree are permitted to take admission without GU-QET to M.E.in Industrial Automation and Robotics; M.E.in Electronics Communication and Instrumentation
  - 1. Electrical and Computer Engineering
  - 2. Electrical and Electronics (Power System)

- 3. Electrical and Electronics Engineering
- 4. Electrical and Instrumentation Engineering
- 5. Electrical and Power Engineering
- 6. Electrical Engineering
- 7. Electrical Engineering (Electronics and Power)
- 8. Electrical Instrumentation and Control Engineering
- 9. Electrical Power Engineering
- 10. Electrical, Electronics and Power Engineering
- 11. Electronic Engineering
- 12. Electronic Instrumentation and Control Engineering
- 13. Electronic Science and Engineering
- 14. Electronics and Biomedical Engineering
- 15. Electronics and Communication (Communication System Engineering)
- 16. Electronics and Communication Engineering (Advanced Communication Technology)
- 17. Electronics and Communication Engineering (VLSI Design & Technology)
- 18. Electronics and Communication Engineering
- 19. Electronics and Communication Engineering (Bio-Medical Engineering)
- 20. Electronics and Communication Engineering (Microwaves)
- 21. Electronics and Computer Science
- 22. Electronics and Control Systems
- 23. Electronics and Electrical Engineering
- 24. Electronics and Instrumentation Engineering
- 25. Electronics and Power Engineering
- 26. Electronics and Telecommunication
- 27. Electronics and Telecommunication Engineering
- 28. Electronics and Tele-Communication Engineering
- 29. Electronics and Telecommunications Engineering
- 30. Electronics and Telematics Engineering
- 31. Electronics Communication and Instrumentation Engineering
- 32. Electronics Design Technology
- 33. Electronics Engineering
- 34. Electronics Engineering (VLSI Design and Technology)
- 35. Electronics Instrument and Control
- 36. Electronics Instrumentation and Control Engineering
- 37. Electronics System Engineering
- 38. Electronics Technology
- 39. Electronics and Communication Technology
- 40. Electronics and Computer Engineering
- (E) Candidates with the following Bachelor of Engineering degree are permitted to take admission without GU-QET to M.E.in Industrial Engineering
  - 1. Industrial and Production Engineering
  - 2. Industrial Engineering
  - 3. Industrial Engineering and Management
  - 4. Industrial Production Engineering

- 5. Logistics & Supply Chain Management
- 6. Manufacturing Engineering
- 7. Manufacturing Engineering and Technology
- 8. Manufacturing Process and Automation Engineering
- 9. Manufacturing Science and Engineering
- 10. Manufacturing Technology
- 11. Mechanical and Automation Engineering
- 12. Mechanical and Mechatronics Engineering (Additive Manufacturing)
- 13. Mechanical and Rail Engineering
- 14. Mechanical and Smart Manufacturing
- 15. Mechanical Engineering
- 16. Mechanical Engineering (Automobile)
- 17. Mechanical Engineering (Manufacturing Engineering)
- 18. Mechanical Engineering (Production)
- 19. Mechanical Engineering (Welding Technology)
- 20. Mechanical Engineering Design
- 21. Production and Industrial Engineering
- 22. Production Engineering
- ii) Candidates with qualifying degrees other than Goa University shall be provisionally admitted to the respective M.E. program subject to submission of Provisional Eligibility Certificate issued by the Goa University.
- iii) Candidates having any other degree not specified in the list notified by Goa University shall apply for issue of Provisional Eligibility Certificate to the Goa University. Such cases shall be decided by Goa University.

#### 5. General Rules of Admission

Following are the general rules of admission for the M.E. Programs

- i) The applicants desirous of admission must comply with the provisions of this prospectus.
- ii) The application form for the admission is available on the college website <a href="https://www.gec.ac.in">https://www.gec.ac.in</a> or <a href="https://gecis.gec.ac.in">https://gecis.gec.ac.in</a>.
- iii) Candidates shall submit online application form together with scanned copies of all required documents and fees on or before 15-07-2025 (Tue).
- iv) The candidate applying for more than one P.G. Course (Geotechnical Engineering, Structural Engineering, Industrial Engineering, Power & Energy Engineering, Electronic Communication and Instrumentation, Industrial Automation and Robotics, Computer Science & Engineering (Artificial

Intelligence & Machine Learning), Information Technology & Engineering) shall select appropriate choices in the online form.

- v) Merit list shall be prepared for admissions to all M.E. programs.
- vi) Candidates eligible to answer GU- QET are permitted to apply for a maximum of TWO M.E. programs.
- vii) The merit list shall be displayed at 6.00 pm on the designated date.
- viii) If the number of candidates for any program is less than five, then provisional admission will be given to these candidates. Further, if the number of candidates for any program is less than five even after the final round then, The Principal, Goa College of Engineering reserves the right to decide whether to admit any students for that program for that year or not.
- ix) The Principal, Goa College of Engineering, reserves the right to modify the schedule of admission, depending upon the prevailing exigency if any.
- x) No correspondence shall be entertained from the candidates regarding the selection.
- xi) The selected candidates shall file affidavits online on Anti- Ragging at <a href="www.amanmovement.org/">www.amanmovement.org/</a> or <a href="www.antiragging.in/">www.antiragging.in/</a> and submit signed ANTI RAGGING undertaking by Students and Parents in the Institute.

#### 5.1 Admission for GU-QET candidates

- (i) Candidates shall refer to the respective college website or contact college administration. Application fees for admission, if any to be paid to the respective college.
- (ii) The GU-QET fees for candidates eligible to answer GU-QET is as follows, and to be paid to the respective colleges at the time of submission of applications:
  - INR 750 in case Un-reserved/ EWS/OBC \* per subject/specialization.
  - INR 375 in case of SC/ST of Goa. \* per subject/specialization.
  - No fees shall be charged from Persons with Disability.
- \*Candidates applying for admission under these categories shall be required to submit a valid certificate to that effect issued by the Officer of the rank of the Deputy Collector or any other authorized Officer as notified by the Government of Goa.
- (iii) Candidates shall be permitted to apply for a maximum of TWO programs for GU-QET.
- (iv) The GU-QET shall be for a duration of TWO hours. The question paper shall be of 100 marks. The question paper pattern shall be Multiple Choice Question (MCQ) type. There shall be no NEGATIVE marking. The minimum qualifying marks is 40 marks. The syllabus for GU-QET is given at LIST II.

#### LIST-II SYLLABUS FOR GU-QET

# (A) Syllabus for the Goa University- Qualifying Entrance Test GU-QET (Civil Engineering) for the following ME programs

- M.E. in Structural Engineering
- M.E. in Geotechnical Engineering

Equilibrium of Forces, Analysis of trusses by method of joints and method of sections, Simple lifting machines - Calculation of mechanical advantage, Velocity ratio and efficiency, determination of deflection of beam by using Macaulay's method, Moment Area method and Conjugate beam method, Shear force & bending moment diagrams for various types of beams and loadings determination of point of zero shear, points of contra-flexure and maximum bending moment, direct & bending stresses, stresses in an element, principal stresses and planes; degree of indeterminancy, Analysis of beams and frames by using Moment Distribution, Slope Deflection methods, Kani's method and matrix methods, Various types of loads on structures, Properties of Concrete, mix design, concrete composition and admixtures; Limit state theory of RC design Design of reinforced Concrete, beams, columns, slabs, footings, Prestressed Concrete members; Steel Structures, tension, compression and flexural members, bolted and welded connections, Three phase relationships of soil, Index properties of soils, shear strength of Soils, permeability and seepage, Flow net, compaction, consolidation, Boussines and westergaard theory of stress distribution in soils, Stress distribution on a horizontal and vertical plane in soils, pressure bulb, Concept of Effective stress and pore pressure in soils, bearing capacity definitions, estimation of bearing capacity by Terzaghi's, Meyerhof's and IS method, Estimation of earth pressure, Estimation of settlement of soils; Types of shallow and deep foundations, proportioning of shallow foundations, estimation of load carrying capacity of single pile and pile groups, Ground Improvement Techniques for weak soils, stability analysis of finite and infinite slopes.

# (B) Syllabus for the Goa University- Qualifying Entrance Test GU-QET (Computer and Information Technology) for the following ME programs

- M.E. Computer Science and Engineering (Artificial Intelligence and Machine Learning);
- M. E. in Information Technology and Engineering.

Programming in C: Data Types, variables, constants, operators, expressions, input and output, Decision making and branching, and Arrays. Digital Electronics: Decimal, binary, octal, hex number systems and their inter conversions, Binary arithmetic, Introduction to BCD codes, Gray codes, Excess-3 codes & ASCII codes, Basic Gates-NOT, OR, AND, Universal Logic Gates-NOR, NAND, Combinational Logic Circuits, Boolean Laws and Theorems, Reducing Boolean Expressions, Converting AOI to NAND/NOR Logic. Operating Systems: Operating System Structure, Operating System Services, Types of System calls. Process scheduling, Inter-process communication. Multithreading models, Threading issues. CPU Scheduling Algorithms: FCFS, SJF, SRTF / SRTN, Priority Scheduling, Round Robin Scheduling. Computer Networks: The OSI and TCP/IP Reference Models.

Theoretical Basis for Data Communication. The Maximum Data Rate of a Channel. Data Link Layer Design Issues, Framing, Error Control, Flow Control Error-Correcting Codes, Error -Detecting Codes. Sliding Window protocol.

# (C) Syllabus for the Goa University- Qualifying Entrance Test GU-QET (Electrical and Electronics Engineering) for the following ME program

• M.E.in Power and Energy Engineering

Electrical & Electronic Circuits: Kirchhoff's voltage & current laws (KCL, KVL), Node and Mesh analysis; Network Theorems: Thevenin's, Norton's, Superposition and Maximum Power Transfer theorem. Simple diode circuits: clipping, clamping, rectifiers; Amplifiers: biasing. Electrical Machines: Single phase transformer: equivalent circuit, phasor diagram, open circuit and short circuit tests, regulation and efficiency; Three-phase transformers: connections, vector groups, parallel operation; Three-phase induction machines: principle of operation, types, performance, torque-speed characteristics, no-load and blockedrotor tests, equivalent circuit, starting and speed control; Operating principle of single- phase induction motors; Synchronous machines: cylindrical and salient pole machines, performance and characteristics, regulation and parallel operation of generators, starting of synchronous motors; Types of losses and efficiency calculations of electric machines. Power Systems-Basic concepts of electrical power generation, ac and dc transmission concepts, Models and performance of transmission lines and cables. Symmetrical and unsymmetrical fault analysis, Principles of over-current, differential, directional and distance protection; Circuit breakers, System stability concepts. Control System: Mathematical modelling and representation of systems, Feedback principle, transfer function, Block diagrams and Signal flow graphs Power Electronics- Static V-I characteristics and firing/gating circuits for Thyristor, MOSFET, IGBT, DC to DC conversion: Buck, Boost and Buck-Boost Converters, Single- phase and three-phase voltage and current source inverters, sinusoidal pulse width modulation.

# (D) Syllabus for the Goa University-Qualifying Entrance Test GU-QET (Electronics and Telecommunication Engineering) for the following ME programs

- M.E.in Industrial Automation and Robotics
- M.E.in Electronics Communication and Instrumentation Engineering Engineering Mathematics: Linear Algebra: Vector space, basis, linear dependence

and independence, matrix algebra, Eigenvalues and eigenvectors, rank, solution of linear equations- existence and uniqueness; Signals and Systems: Continuous-time signals: Fourier series and Fourier transform, sampling theorem and applications. Discrete-time signals: DTFT, DFT, z-transform, discrete-time processing of continuous-time signals. LTI systems: definition and properties, causality, stability, impulse response, convolution, poles and zeroes, frequency response, group delay, phase delay. Digital Circuits: Number representations: binary, integer and floating-point- numbers. Combinatorial circuits: Boolean algebra, minimization of functions using Boolean identities and Karnaugh map,

logic gates and their static CMOS implementations, arithmetic circuits, code converters, multiplexers, decoders. Sequential circuits: latches and flip-flops, counters, shift-registers, finite state machines, propagation delay, setup and hold time, critical path delay. Data converters: sample and hold circuits, ADCs and DACs. Control Systems: Basic control system components; Feedback principle; Transfer function; Block diagram representation; Signal flow graph; Transient and steady-state analysis of LTI systems; Frequency response; Routh-Hurwitz and Nyquist stability criteria; Bode and root-locus plots; Lag, lead and lag-lead compensation; State variable model and solution of state equation of LTI systems. Analog communications: amplitude modulation and demodulation, angle modulation and demodulation, spectra of AM and FM, super heterodyne receivers. Digital communications: PCM, DPCM, digital modulation schemes (ASK, PSK, FSK, QAM), bandwidth.

# (E) Syllabus for the Goa University- Qualifying Entrance Test GU-QET (Mechanical Engineering) for the following ME program

M.E.in Industrial Engineering

Introduction to manufacturing processes: Sheet metal forming, Sheet metal cutting, Metal joining processes. Linear Measurement: Vernier Instruments, Micrometer Instruments and Slip gauges. Angular Measurement: Sine Bar Probability Preliminary: Introduction to Probability, definition, Sample Space, Events, Conditional Probability, Theorem on total probability, Random Variable: Introduction, Discrete and Continuous, Characteristics-Mean and Variance. Probability distributions: Bernoulli trial, Binomial, Geometric, Exponential and Normal - Probability law, mean and variance. Concept of Productivity, Production vs Productivity, Productivity Measures, Work Study, Method Study, Procedure of Method Study, Work Measurement, Work Measurement Techniques (Work Sampling, Time Study), Wages and Incentives. Plant layout (Process layout and product layout) Forecasting, Project scheduling (CPM), Inventory, ABC analysis, Basic EOQ model, Assembly line balancing, Sequencing and scheduling. Management theories, Manager V/S Leader, Organisation, Organisational structure, Span of control, Authority Responsibility and Delegation, Leadership, Leadership styles, Motivation, Maslow's Theory of Motivation, Communication, Communication process model.

#### 5.2 Intimation of Merit List of Admission

- i) The applications in the prescribed form received for admission will be scrutinized in terms of the provisions in the prospectus. The Merit list of the eligible candidates shall be displayed on the College website (https://www.gec.ac.in or https://gecis.gec.ac.in).
- ii) The candidates are advised to refer to the schedule of admission process as notified on the College website (https://www.gec.ac.in or <a href="https://gecis.gec.ac.in">https://gecis.gec.ac.in</a>) from time to time.
- iii) If a candidate fails to confirm her/his seat as per the schedule, or is found to be ineligible as a result of scrutiny of her/ his certificates, the allotted seat shall be cancelled and the same will be allotted to the next eligible candidate in the Merit list.

#### 5.3 Cancellation of Admission

- i) Incomplete Applications or applications without supporting documents (as required) shall be summarily rejected.
- ii) Any candidate who is allotted a seat must pay the prescribed fees on the day of admission. The admission shall be treated complete only after the submission of all the required original documents and payment of full fees, failing which the admission is liable to be cancelled.
- iii) Admission offered to a candidate shall be cancelled at any time if Goa University declares that the candidate is not eligible for the admission.
- iv) If a candidate fails to join the college within fifteen days from the date of commencement of academic term, or remains absent for more than fifteen days, without prior permission, The Principal, Goa College of Engineering reserves the right to cancel her/his admission.
- v) If any information furnished by the candidate in connection with her/his admission is found to be incorrect, at any point of time, the admission of such candidate will be cancelled and fees paid by the candidate shall get forfeited. The decision of The Principal, Goa College of Engineering in this matter shall be final and binding.

#### 5.4 Provisional Eligibility Certificate/ Migration Certificate

The candidates who have passed the qualifying examination from University other than the Goa University and seeking admission to M.E. Program shall have to submit a provisional eligibility certificate from The Registrar, Goa University along with their online application for admission, without which the application is liable to be rejected. Such candidates are also required to submit Migration Certificate.

Detailed instructions regarding provisional eligibility certificate can be obtained from The Registrar, Goa University, Taleigao plateau, Goa. Candidates may refer Goa University website <a href="www.unigoa.ac.in">www.unigoa.ac.in</a> for further details.

#### 5.5 Documents and Certificates

Candidates are required to upload legible scanned copies of the following documents along with the online application:

- i) Bachelor's Degree in engineering or Passing certificate in qualifying degree.
- ii) Marks sheets of all Semesters of qualifying examinations.
- iii) College Leaving Certificate.
- iv) Provisional Eligibility Certificate from Goa University (if applicable).
- v) Migration Certificate (if applicable).
- vi) Valid Gate Score Card (if any).
- vii) Valid Qualifying Entrance Test (GU-QET) Certificate of PG program, in relevant program. (Wherever applicable)
- viii) SC/ST Certificate for Group IV (Annexure 1)
- ix) Valid OBC NCL Certificate for Group V (Annexure 2)
- x) Person with disability Certificate from Goa Medical College.
- xi) Sponsorship Certificate for Group II (Annexure 3)
- xii) EWS Certificate (if applicable) (Annexure 4)
- xiii) Undertaking by Student (Annexure 5)

#### 6 Group Wise Seat Allotment

SN	Group	Details	Seats	Seats	Seats
1)	Group I	Students passing B. E. Exam under Goa University (GU) ##	04	05	08
2)	Group II	Sponsored Candidates	01	01	02
3)	Group III	Students passing B.E. Exam of any University including Goa University (General)	01	01	02
4)	Group IV	Candidates belonging to SC/ST of Goa	02	03	03
5)	Group V	Candidates belonging to OBC - NCL of Goa	04	05	06
6)	Group VI	I Persons with disabilities from Goa		01	01
7)		Economically Weaker Section	02	02	02
		TOTAL NUMBER OF SEATS	15	18	24

<sup>\*\*</sup> Including Students passing B. E. Exam from Goa College of Engineering (under Bombay University) prior to establishment of Goa University.

Economically Weaker Section (EWS) Seats are allotted as per AICTE as mentioned in the Table above.

#### **Rules for Group Wise Allotment**

- i) The candidates applying for Group I, IV, V & VI should possess qualifying Degree from Goa University##.
- ii) The candidates applying for Group II should possess a certificate indicating that they are employed for a minimum period of six months (Annexure 3).
- iii) All the candidates with the qualifying Degree from any University including Goa University are considered in Group III (General). Admission process will start with Group III.
- iv) Following Order shall be followed for seat allotment Group III-I-IV-V-II-VI.

- v) The candidates applying for Group IV shall submit SC/ST Certificate (Annexure 1).
- vi) The candidates applying for Group V shall submit Valid OBC NCL Certificate (Annexure 2).
- vii) The candidates applying for Group VI must produce a certificate from the Medical Board of GMC regarding disability.
- viii) The Formats for the respective certificates / undertaking shall be as per Annexure -1 to Annexure 5.
- ix) Any seat remaining unfilled in any Group, shall be first transferred to Group I. If there are no eligible candidates remaining in Group I, then seats remaining shall be transferred to Group III, i.e. in case list of candidates having qualifying degree from Goa University is exhausted, remaining seats will be offered to candidates having qualifying degree from any recognised University.
- x) The candidates qualifying GU-QET will be considered for admission against the vacant seats available, if any, after candidates from the merit lists of programs eligible for admission without GU-QET in relevant program are given admission.

#### xi) The merit list will be based on the valid GATE score.

- a) If GATE scores are equal, then candidates with higher percentage of aggregate marks in last four semester of B.E. Degree shall be placed higher in the merit list.
- b) If the percentages of aggregate marks in last four semesters of B.E. Degree are equal, then the candidate with a higher percentage of aggregate marks of all semesters of B.E. Degree shall be placed higher in the merit list.
- xii) If any seats remain vacant in any of the category after considering the candidates with GATE score, merit for the remaining seats shall be decided based on the percentage of aggregate marks secured in last four semesters of B.E. Degree.
  - If the percentages of aggregate marks in last four semesters of B.E. Degree are equal, then the candidate with a higher percentage of aggregate marks of all semesters of B.E. Degree shall be placed higher in the merit list.

- xiii) At the time of such provisional admissions, the candidate will have to pay full fees, as applicable. If a candidate becomes ineligible after the declaration of BE results, the refund of fees shall be made as per the prescribed rules.
- xiv) Admission to candidates qualified through GU-QET shall be filled up only against the vacant seats available, if any, after candidates from the merit lists of programs, who are eligible for admission without GU-QET in relevant program are admitted.
- when the final year B.E. marks are provided in Grade points, then they shall be converted to percentage by the formula provided by concerned University. The following formula as prescribed by Goa University shall be used to compute the percentage when the formula is not provided by concerned University:

Average Percentage of Marks: (CGPA - 0.75) x 10.

#### Reservation for Economically Weaker Sections (EWS)

Government has approved implementation of reservation for Economically Weaker Sections (EWS) for admissions to Professional courses.

Applicants wishing to avail admissions to seats reserved for EWS are required to produce Income and Assets Certificate in specified format(Annexure - 4), issued by Mamlatdar of concerned Taluka along with the online application.

#### 7 Details of Fees and Refund

Prescribed fees as shown in the following Table\_shall\_be deposited in the college by the student to confirm admission after the seat allotment.

Sr. No.	Description	Amount Per Year/Semester	<b>Total Amount</b>
1)	Admission Fee	Rs. 2500/-(Non - refundable)	Rs. 2500/-
	(one time only)		
College	Fees		
2)	Tuition Fee*	a) Rs 20000/- per semester	
			Rs. 28500/-
3)	Development Fee*	a)Rs 6225/- per semester	165. 20000
4)	Gymkhana Fee	Rs 150/- per semester	
5)	Annual Social Gathering	Rs 100/- per year	
6)	Students Aid Fund	Rs 150/- per year	
7)	Magazine Fee	Rs 150/- per year	
8)	Group Insurance Fee	Rs 125/- per year	
9)	Identity Card	Rs 100/-(One time)	
Deposits	3	•	
10)	Library Deposit	Rs. 750/- Refundable	
11)	Caution Money Deposit	Rs 750/- Refundable	
		1	1

#### Hostel fees\*

As per approved fees by Directorate of Technical Education, Government of Goa published in Common Prospectus for Admission to the First Year of Professional Degree Courses, Session 2025-2026.

The regulatory authorities and Govt. of Goa may revise the above fee structure from time to time.

Students requiring hostel accommodation shall apply through administrative section in the specified format. Students shall pay the Hostel fees to confirm Hostel accommodation.

<sup>\*</sup> Based on students preferences, programme with 3 year duration, shall have Tuition Fees as Rs.14000/- per semester and the Development Fees will be Rs. 4,000/- per semester.

All Fees will have to be paid through online mode only.

# Account details and online payment link will be provided by the college at the time of admission rounds.

#### Refund of Fees

- a) If a student cancels the admission by written application addressed to The Principal on or before 11<sup>th</sup> August 2025, then all fees paid by a student at the time of admission shall be refunded to her/him.
- b) If a student cancels the admission by written application addressed to The Principal, after 11<sup>th</sup> August 2025, then Caution Money Deposits, Library Deposits, Hostel Deposits if paid, will be refunded to the candidate. No other fees shall be refunded.
- c) Admission fee of Rs. 2500/- shall not be refunded under any circumstances.

#### NOTE:

- a) No additional fees are applicable in case the candidate migrates to other program offered within the College.
- b) Prescribed examination fees and its refund are subject to the rules of Goa University from time to time.

#### **Refund of Deposits**

Caution money deposit, Hostel deposit and Library deposit shall be refundable to a student on receipt of an application along with original fee receipt within six months of declaration of result of the final semester examination by the University. The refund will be subject to the recovery of dues towards breakage, loss, damage, etc of the College property. All other fees are non-refundable.

#### 8. Academic Term and Examinations

Goa University conducts examinations at the end of every semester as per its rules and regulations. Students appearing for the examinations have to pay the prescribed examination fees.

#### 9. Conduct Rules

Goa University Ordinances regarding attendance, conduct, discipline, and rules for keeping of terms by the students shall be followed.

i) Class work such as laboratory journals, workshop practices are also counted towards the University results. Principal of the college shall be the competent authority not to forward the candidate's application for the University Examination, in case her/ his performance is not found to be satisfactory.

- ii) Principal reserves the right to remove the name of any student from the rolls for failure to pay the College or hostel dues in time.
- iii) Use of mobile phones in the Academic Area (class rooms, corridors of Main Building and Departmental buildings, laboratories, library, Academic section and offices) is restricted.
- iv) Institute is a Tobacco Free Campus. Use of tobacco in any form is punishable offence as per the prevailing Government rules.

#### **Hostel Rules**

- i) Hostel accommodation to PG students is subject to availability.
- ii) Admission to the hostel and allocation of rooms is left to the discretion of the Chief Warden /Hostel Superintendent, upon submission of medical fitness certificate, from a registered medical practitioner. No student shall be admitted to the Hostel, unless she/he has paid the hostel fees, and deposit.
- iii) Outsiders are not allowed to stay in the hostels except for social visits during the day time and under no circumstance after 7:00 pm.
- iv) Residents shall maintain discipline and cleanliness in the hostel premises and shall be held responsible for any damage to the hostel property and appropriate cost towards the same, shall be recovered from her/him in the manner as directed by the Principal.
- v) Any student not showing satisfactory progress at the College examination is liable to forfeit the place in the hostel.
- vi) The Hostel facility will be provided only for two years of the academic term of ME program. Students shall vacate and hand over the possession of the allotted rooms every year at the end of even semester examinations in view of the maintenance works of the hostels to be carried out by PWD.
- vii) Any contravention to these rules shall render student concerned to be expelled from the hostel and Principal's decision in this regard shall be final.
- viii) Ragging in any form will result in instant expulsion of students responsible.

ix) Re- allotment of hostel accommodation for a fresh term shall be done only if a student has vacated the allotment in previous term in time and eligible to attend semester.

#### Annexure - A

#### **Details of the Departments**

#### **Civil Engineering Department**

The Department of Civil Engineering (CED), Goa College of Engineering provides a broad-based educational experience in the various arrays of civil engineering that is firmly founded upon science, mathematics, and the humanities. The CED encourages basic learning, research, and the contemporary problems of technology and civil engineering society at large. The Department emphasizes the skills of problem-solving, ethics, teamwork, communications, and management while providing multidisciplinary design experiences to prepare graduates for the challenges of the profession. The department encourage service to the engineering profession and society by all faculty and students. The Department promotes sustainability and embraces technology by encompassing technology as per the AICTE syllabus.

The Department of Civil Engineering (CED), Goa College of Engineering is one of the oldest departments in the college established in the year 1967. It is approved by AICTE and affiliated to Goa University. The Department offers a full-fledged Under-Graduate program in Civil Engineering which is NBA accredited. It offers two Post Graduate Programs in Structural and Geotechnical Engineering affiliated to Goa University. Our programs are designed to equip students with strong technical knowledge, practical skills, and a deep understanding of societal and environmental responsibilities. CED is a PhD research centre with atleast 4 candidates successfully defending their PhD thesis and many more registered as PhD scholars. The Department's research programs focus on the areas of environmental and water resources engineering, geotechnical engineering, structural engineering.

The Department has active engagement with industry through ICI, IEI, IGBC, IGS and BIS students Chapters. Students' projects are mostly industry oriented. We dedicate a semester as an internship with local consultants and Govt. organizations at the PG level. The PG course runs with its fullest capacity right from its inception. Our PG alumni are placed in Reputed national & international infrastructure firms, Public sector units and government departments, Ph.D. programs and research labs & Academia and technical consultancy.

Civil engineering students pursuing an educational program at CED have a great opportunity to learn from a spectacular well-rounded faculty, interaction with a wonderful student body, strong alumni connect and prepare for an exciting professional career.

#### **Mechanical Engineering Department**

Mechanical Engineering Department was established in the year 1967. It is approved by AICTE and affiliated to Goa University. The Department offers a full-fledged Under-Graduate program in Mechanical Engineering. It offers a Post Graduate Program in Industrial Engineering affiliated to University.

The following are the salient features of the department

- UG program in Mechanical Engineering is NBA accredited for 3 years up to 30<sup>th</sup> June 2025.
- Department has 14 faculty with 12 faculty possessing PhD and 1 pursuing PhD.
- Department is the only recognized PhD research centre in Mechanical Engineering under Goa University with 5 recognized supervisors. 4 candidates having successfully defended their PhD thesis and 19 PhD scholars are presently registered.
- Department has signed MoUs with five industries to promote industryinstitute interactions.
- Alumni have been working at senior positions
  - ➤ in industries in Goa such as Goa Shipyard Ltd.-Vasco, Mormugao Port Trust- Mormugao, Zuari Industries Ltd. Sancoale, Deccan Fine Chemicals Corlim, Siemens-Verna, MacBrout Engg. Pvt. Ltd.-Margao, MRF Ltd.-Usgao, CommScope-Verna, CG Power and Industrial Solutions Limited-Bethora and Kundaim, Lift Controls Private Limited-Khandepar, Godrej & Boyce Mfg Co. Ltd.-Madkai, Pentair Water India Pvt. Ltd., Verna.
  - in various departments under Government of Goa.
  - ➤ in reputed Management institutes, Engineering colleges and Polytechnics in the state
- Alumni also have their own business enterprises.
- The Post Graduate degree is eligible for PhD admissions in Centrally Funded Institutions like IISc, IIT, NIT, Central and State Universities.
- Well-equipped laboratories with software's like Isograph, Minitab, MATLAB.
- Seminar, Project and Dissertation work involves application of state-of-the-art Industrial Engineering techniques.
- Student/Faculty research work is published in reputed International journals indexed in Web of Science and Scopus or are presented in reputed International conferences.

• Various FDP, STTP, seminars are organized under the banner of AICTE ATAL FDP, IIIE Goa Chapter and ISHRAE Goa Chapter.

#### **Electrical & Electronics Engineering Department**

Electrical & Electronics Department is one of the oldest departments in the college established in the year 1967. It is approved by AICTE and affiliated to Goa University. The Department offers a full-fledged Under-Graduate program in Electrical & Electronics Engineering. It also offers a Post Graduate Program in Power & Energy Systems affiliated to Goa University. It is also recognised as a PhD research centre. The department has its spacious building housing lecture halls, seminar hall, laboratories, and computer centre. The department has well qualified, experienced and dedicated faculty with active research involvement.

The following are key features of the department.

- Highly qualified, experienced and motivated faculty.
- UG program is NBA accredited for 3 years upto 30<sup>th</sup> June 2025.
- Well-equipped Laboratories having state of art equipment like Power Analysers, variable frequency drives, Thermal Camera, Matrix Convertor to mention a few.
- Alumni are holding key positions in Goa Electricity Department and other Government institutions and various major Industries in Goa like, Zuari Industries Ltd., Siemens, Bosch, Lupin Laboratories, Nestle etc
- Faculties and research scholars publish research outcomes in International journals and conferences.

#### **Electronics & Telecommunication Engineering Department**

Established in the year 1982, the department offers two Post Graduate Programs:

- i) Electronics Communication & Instrumentation and
- ii) Industrial Automation & Robotics

approved by AICTE and affiliated to Goa University. The Department also offers two full-fledged Under-Graduate programs in E&TC Engineering and VLSI Design & Technology.

#### The following are the salient features of the department -

- 15 Highly Qualified & Experienced Faculty members with active research work.
- Well-equipped facilities in Robotics, Automation, Embedded Systems, Parallel Processing with GPUs, VLSI Design, Communication Engineering, Microwave, RF, EMI/EMC, Antenna Design & Instrumentation.
- A strong Industry linkage with over 20 companies offering Placements and Internships to Students.

- Recognized as a PhD research Centre since 2014. Four PhD scholars presently registered and five students have successfully completed their PhD degree.
- Research Paper Publications in Reputed SCI/SCOPUS Journals & International Conferences by Faculty members & Students like IEEE Transactions on Vehicular Technology, IEEE Transactions on Electron Devices, IEEE Communications Surveys & Tutorials, IET Communications, Elsevier Optic, IETE Journal of Research, Springer Optical and Quantum Electronics.
- Active Subscription to IEEE Xplore & Science Direct Elsevier Journals UG program in Electronics & Telecommunication Engineering is NBA accredited for 3 years upto 30<sup>th</sup> June 2025.
- Faculty Development Programs under ATAL Academy, Workshops & Seminars organized regularly.
- Association of E&TC Students (ASSETS) for Co-curricular & Extra Curricular Activities and IEEE students Chapter & IETE students forum are highly active in conducting activities for the benefit of students.

#### **Computer Engineering Department**

The Department of Computer Engineering was established in 1989 and currently offers an undergraduate programme for Degree in Computer Engineering and offered postgraduate programme in Computer Science and Engineering since the year 2011. Currently from this year the department shall substitute this programme with postgraduate programme in Computer Science and Engineering (Artificial Intelligence and Machine Learning). The Department is housed in an independent spacious ground plus one building on G.E.C campus at Farmagudi, Goa. Recently an annexe building is added with state of art facility.

- State-of-the-art facilities
- UG program is NBA accredited for 3 years up to 30<sup>th</sup> June 2025.
- Well-equipped Laboratories
- Adequate classrooms
- Department library
- Research areas: Networks, Databases, Theoretical Computer Science, Machine Learning, Artificial Intelligence, Image processing, Software Engineering, Data Mining
- Innovative practices like Student Counselling, Mini Project Exhibition,
   Visiting Village Schools, Promotion of Internship, Encouraging
   Entrepreneurship, Organizing Workshops, Seminars, Talks and Involving
   alumni in curriculum development, project selection, industry internship and
   examination yielded very good results.

#### **Information Technology Department**

The Information Technology department was established in the year 2001 with an intake of 60 students with a goal to impart high quality knowledge and skills to students in the field of Information Technology, motivate research, encourage industry consultancy projects and nurture human values and life skills. Till date we have 20 successful batches graduated from our department.

The following are the key features of the department

- The department is well equipped with 11 professional laboratories, seminar/conference room, auditorium, Incubation Centre and an independent department library.
- UG program is NBA accredited for 3 years up to 30<sup>th</sup> June 2025.
- The department has 14 well qualified faculty members with expertise in various fields of Information Technology and specialized in the fields of Natural Language Processing, Security, Artificial Intelligence, Data Mining, Image Processing, Networking, Cloud Computing, etc.
- The department also offers a Post Graduate program in Information Technology and Engineering. We have 06 successful batches that have post graduated from our department and are being placed.
- The department organizes various technical events under ITCEP (Information Technology Continuing education Programme).

### **Details of College Faculty Members**

### **Department of Civil Engineering**

Dr. Ganesh Narayan Hegde – Head of Department (Areas of Interest – Structural Engg. Earth Quake Engg., Structural Health Monitoring)

Sr. No.	Names of Faculty	Areas of Interest	
1	Dr. Purnanand Savoikar	Geotechnical Engg.	
2	Dr. Ulhas G. Sawaikar	Environmental Engg.	
3	Dr. Nisha Naik	Geotechnical Engg.	
4	Dr. Sumitra_Kandolkar	Geotechnical Engg.	
5	Ms. Wilma Fernandes	Geotechnical Engg.	
6	Mr. H.S. Prasannakumar	Geotechnical Engg.	
7	Mr. Vikas_Chodankar	Structural Engineering	
8	Ms. Smita_Aldonkar	Geotechnical Engg.	
9	Mr. Guruvendra Velip	Structural Engineering	
10	Mr. Madhuraj Naik	Structural Engineering	

### **Department of Mechanical Engineering**

Dr. Mahesh N.\_Dhawalikar - Head of Department (Areas of Interest - Industrial Engineering, Operations Management, Work System Design)

Sr. No.	Names of Faculty	Areas of Interest
1.	Dr. Rajesh S. Prabhu Gaonkar	Industrial Engineering, CAD/CAM, Reliability Engineering, Multi attribute Decision Making
2.	Dr. Vinay A. Shirodkar	Operations Research, Engineering Statistics, Industrial Engineering, Economic Lot Scheduling
3.	Dr. Akshay Vithal_Nigalye	Design Engineering, Stress Analysis, FEM
4	Dr. Suraj S. Rane	Quality & Reliability Engineering, Six Sigma Management, Maintenance Engineering, Industrial Engineering
5	Dr. Jagannath B. Hirkude	Thermal and Energy Systems Engineering
6	Dr. Milind J. Sakhardande (Presently on Work Placement as Joint Director, DoIT)	Industrial Engineering, Reliability Engineering, Supply Chain Management
7	Dr. B. S. Manohar Shankar	Fluid Mechanics, Mechatronics, Dielectric Elastomer Applications
8	Mr. Vivek_W. Belokar	Thermal Engineering, Industrial Engineering
9	Mr. Gajesh G. S. Usgaonkar	Hydraulics, Industrial Engineering, Engineering Measurements and Metrology
10	Dr. Shridhar_D. Mhalsekar	Industrial Engineering, Fluid Mechanics, Manufacturing Technology, Automobile Engineering, Gas Dynamics and Turbomachinery's.
11	Dr. Mahesh M. Caisucar	Analysis and Synthesis of Mechanism, Dynamics of Machinery, Fluid Power Control, Mechatronics, Operations Research, Industrial Engineering

12	Dr. Raghavendra D. Naik	Design Engineering, Nonlinear Vibration, Vibration Attenuation
13	Dr. Harichandra U.	CAD/CAE, Composite Materials
13	Chandekar	

## **Department of Electrical & Electronics Engineering**

Dr. G. R. Kunkolienkar - Head of Department (Areas of Interest - High Voltage Engg., Electromagnetics, Power Systems)

Sr. No	Name of the faculty	Areas of Interest				
1	Dr. Anant J. Naik	Renewable Energy, Power electronics Power Quality				
2	Dr. Sangeeta Mahaddalkar	VLSI, Embedded system, Image Processing, Analog and Digital Electronics, Power Quality				
3	Dr. Suneeta Raykar	Artificial Neural Network, Digital/Analog Electronics				
4	Mr. Nilesh W. S. Borkar	Electrical Machines, Power System and Protection, Energy conservation techniques				
5	Dr. Sonali Pandit	Control systems, VLSI design, Signal Processing, DSP, Digital Electronics				
6	Dr. Jayeshkumar Priolkar	Energy Management				
7	Dr. Samarth B. Borker	Signal & Image Processing				
8	Mr. Noah Dias	Electrical Power system, Energy Management, Electrical Machines				
9	Dr. Aditi A. Desai	Renewable energy, Special Electrical machines				
10	Ms. Ankita A Kanekar	Electrical Power systems, Power Electronics, Renewable Energy, VLSI				
11	Ms. Sneha Phadte	Electrical Machines, Electrical Power systems, Renewable Energy				
12	Ms. Kavita Nanshikar	Power Electronics, Renewable Energy Systems				

# **Department of Electronics & Telecommunication Engineering**

Dr. Hassanali G. Virani - Head of Department (Area of interest - Micro Electronics)

Sr.No.	Names of Faculty	Areas of Interest			
1.	Dr. Rajesh B. Lohani	Electronic Devices			
2.	Dr. Ameeta G. Sinai Amonkar	VLSI, Micro-Electronics			
3.	Dr. Nitesh B. Guinde	Micro-Electronics & Parallel Processing			
4.	Dr. Nayana_Shenvi	Embedded System, Communication & Instrumentation			
5.	Dr. Sonia Kuwelkar	Micro-Electronics			
6.	Dr. Shajahan_Kutty	Communication Engineering			
7.	Ms. Amita_Dessai	Communication & Instrumentation			
8.	Mr. Chetan Desai	RF & Microwave Engineering, Parallel Processing			
9.	Mr. Milind_Fernandes	Robotics, Control Systems, RF and Communication			
10	Mr. Devendra_Sutar	Industrial Automation, Networking, Embedded System & Instrumentation			
11.	Mr. Sangam_Borkar	RF and Microwave Engineering, Antenna & Radar			
12.	Ms. Purti_Savardekar	Communication & Instrumentation			
13.	Ms. Geeta_Shet	Micro-Electronics			
14.	Ms. Palhavi Kerkar	Micro-Electronics			

## **Department of Computer Engineering**

Dr. Jayapura Ananthiah Laxminarayana Head of Department (Area of interest - Artificial Intelligence, Machine Learning, Pattern Recognition)

Sr. No.	Name of Faculty Areas of Interest					
1	Mr. Umesh A. Bapat	Software Engineering, DBMS, Data Mining				
2	Ms. Maruska F.C Mascarenhas	Data Structures, Design and Analysis of Algorithms, Data Mining, Machine Learning, Theory of Computation and Compilers				
3	Mr. Nagraj S Vernekar	Networking, Architectures & Object Oriented Programming				
4	Mr. Vineet Jain	Computer Networking, Web Technology, DBMS				
5	Dr. Gajanan_Gawde	Data Mining, Machine Learning, Cryptography and Compilers				
6	Ms. Manisha_Babuso_Naik Gaonkar	Databases, Machine Learning and Speech Processing				
7	Dr. Rachel Dhanaraj	Computer Vision, Image Processing and Deep Learning				
8	Dr. Nitesh_Naik	Data Science, Machine and Deep Learning, Data Analytics, Geo Spatial Data Analysis, Computational Intelligence, Cloud Computing and Security				
9	Ms. Melina Afonso	Database Systems, Data Networks & Brain Computing Interface				
10	Ms. Sherica_Menezes	Data Science and knowledge Discovery, Data Structures and Algorithms & Graph Theory				
11	Mr. Amit_Patil	Natural language processing, Data Mining & Soft Computing				
12	Mr. Teslin J. Jacob	Web Technologies & Theory of Computation				
13	Ms. Shruti_Pednekar	Data Mining, Operating System				
14	Ms. Sulana Rebelo	Data Mining & Machine learning				

## Department of Information Technology

Dr. Nilesh B. Fal Dessai - Head of Department (Area of interest- Speech Technology, Natural Language Processing, Soft Computing, Genetic Algorithm)

Sr. No.	Name of Faculty	Areas of Interest				
1.	Dr. Aisha Fernandes	Software Engineering and Security				
2.	Ms. Vaishali_Shirodkar	Database Management Systems, Data Mining, Brain Computer Interface				
3.	Mr. Ganesh V. Manerkar	Computer Networks, Indian knowledge Systems, Block Chain Technology				
3.	Ms. Deepali M. Raikar (Presently on Work Placement in DTE, Goa)	Compilers, Theory of Computation & Optimization				
4.	Ms. Siddhi P. Naik	Image Processing, Cryptography				
5.	Mr. Mario Pinto	Operating System, Mobile Computing				
6.	Ms. Megha_Nayak (Presently on Work Placement in DTE, Goa)	Cloud Computing, Cryptography				
7.	Ms. Nadine Dias	Database Systems, Web Technology				
8.	Mr. Amogh_Sanzgiri	Intelligent Agent, Data Mining, Soft Computing				
9.	Ms. Soniya_Usgaonkar	Computer Graphics, Data Mining, Brain Computer Interface				
10.	Mr. Bipin Naik	Web Technology, Data structures				
11	Ms. Aparna Rane	Compilers, Databases, computer organization				
12	Dr. Diana Miranda	Machine Learning, Natural Language Processing				

# Annexure – C Important Contacts

		Dr. Krupashankara M.S.		
		Dr. Krupashankara M.S.		
1.	Principal	Office, Main Building, GEC.		
		Ph:2336301		
		Email: - <u>ppl@gec.ac.in</u>		
		Mr. Suyash Sinai Khandeparkar		
2.	Deputy Registrar	Estt. Section, Main Building, GEC.		
۷.	Deputy Registrai	Ph: 2336303		
		Email: - <u>dr@gec.ac.in</u>		
		Dr. Suraj S. Rane		
2	Due ( I. alama A and and a	Academic Section, GEC.		
3.	Prof. In-charge, Academic	Ph: 2336306		
		Email: - <u>ssr@gec.ac.in</u>		
		Dr. Vinay Shirodkar		
		(In-charge Librarian)		
4.	Librarian	Library Building, GEC.		
		Ph. 2336391		
		Email: - <u>librarian@gec.ac.in</u>		
		Mr. Ketan_A. Naik		
_	A	Academic Section, GEC.		
5.	Assistant Registrar (Academic)	Ph: 2336306		
		Email: - <u>kn@gec.ac.in</u>		
		Mr. Sitaram S. Gaude		
		Account Section, Main Building, GEC.		
6.	Assistant Accounts Officer	Ph: 2336304		
		Email:- <u>ao@gec.ac.in</u>		
		Dr. Ganesh N. Hegde		
_		Civil Engineering Dept. GEC.		
7.	Head, Civil Engineering Dept.	Ph: 9420978458		
		Email:- gh@gec.ac.in		
		<b>Dr.</b> Mahesh N. Dhawalikar		
	Head, Mechanical Engineering	Mechanical Engineering Dept. GEC.		
8.	Dept.	Ph: 9049208377		
	Dept.			
		Email:- <u>maheshd@gec.ac.in</u>		

		Dr. Govind Ramrao Kunkolienker		
		Electrical & Electronics Engineering		
9.	Head, Electrical & Electronics	Dept. GEC.		
	Engineering Dept.	Ph: 9420978274		
		Email:- grk@gec.ac.in		
		Dr. Hassanali G. Virani		
	Head, Electronics &	Electronics & Telecommunication		
10.	Telecommunication Engineering	Engineering Dept. GEC.		
	Dept.	Ph: 9158614320		
		Email:- virani@gec.ac.in		
		Dr. J.A. Laxminarayana		
11	Head, Computer Engineering	Computer Engineering Dept. GEC.		
11.	Dept.	Ph: 9326124463		
		Email:- <u>jal@gec.ac.in</u>		
		Dr. Nilesh B. Fal Dessai		
1.0	Head, Information Technology	Information Technology Dept, GEC.		
12.	Dept	Ph: 9850409579		
		Email:- <u>nfd@gec.ac.in</u>		
		Dr. Ulhas G. Sawaikar		
10		Mining Engineering Dept. GEC.		
13.	Head, Mining Engineering Dept.	Ph: 9422456117		
		Email:- <u>ugs@gec.ac.in</u>		
		Dr. Sebestian Mesquita		
	Head, Science and Humanities	Science and Humanities Dept. GEC.		
14.	Dept.	Ph: 9226897659		
	1	Email:- sm@gec.ac.in		
		Dr. Ganesh Hegde		
		Civil Engineering Dept. GEC.		
15.	Chief Warden, Hostels	Ph: 9420978458		
		Email:- gh@gec.ac.in		
		Dr. Manoj Choukuse		
	Training & Placement	T&P Cell, Main Building, GEC		
16.		Ph: 9423810809		
		Email:- <u>placement@gec.ac.in</u>		
		Dr. Adlete Mascarenhas		
		Main Building, GEC		
17.	Public Information Office	Ph: 9850090585		
		Email:- <u>aaa@gec.ac.in</u>		
		Limit. Man Securit		

18.	Cultural In-charge	Dr. Milind_Sakhardande Mechanical Engineering Dept. GEC. Ph: 2336328/9764964497 Email:- milind@gec.ac.in			
19.	Sports In-charge	Dr. Mahesh Caisucar Mechanical Engineering Dept., GEC. Ph: 2336391/9850459459 Email: - maheshc@gec.ac.in			
20.	Central Computing Facility	Dr. Nitesh Guinde Electronics & Telecommunication Engineering Dept. GEC. Ph: 2336442/9423821445 Email:-nitesh.guinde@gec.ac.in			
21.	Telephone/Wireless Communication	Dr. Shajahan_Kutty Electronics & Telecommunication Engineering Dept. GEC. Ph: 2336349/9881217949 Email:-skutty@gec.ac.in			
22.	Women Cell	Prof. Ujwala_Phadke Science and Humanities Dept. GEC. Ph: 2336373/9422440255 Email:- ujwala@gec.ac.in			
23.	Internal Complaints Committee	Dr. Sumitra Kandolkar Civil Engineering Dept. GEC. Ph:2336321/9762565036 Email:- sumitra@gec.ac.in			
24.	Workshop Section	Mr. Balkrishna Chodankar Assistant Workshop Suptd., GEC Ph:2336421/9822483951 Email:- balkrishna@gec.ac.in			

## M. E Admission Committee- 2025-26

Dr. Akshay V. Nigalye	Chairman
Dr. Aisha Fernandes	Member
Dr. Jayeshkumar Priolkar	Member
Prof. Manisha Naik Gaonkar	Member
Dr. Harichandra Chandekar	Member
Prof. Sangam Borkar	Member
Prof. Madhuraj K. Naik	Member
Mr. Ketan A. Naik	Member Secretary

#### Government of Goa GOA COLLEGE OF ENGINEERING, FARMAGUDI

Ponda- Goa, 403401, Phone -0832-2336301/302/306, Telfax : 0832-2335021 web: <a href="www.gec.ac.in">www.gec.ac.in</a>, email: <a href="ppl@gec.ac.in">ppl@gec.ac.in</a>

#### CASTE CERTIFICATE (SC / ST)

1. This is to certify that Shri/Kum.	
Son/daughter of	of village / town
of the state of Goa	belongs to the
Caste / Tribe which is recognised as a Schedu	led Caste under:
The Constitution (Goa, Daman and Diu) Sched	uled Caste order, 1968
The Constitution (Goa, Daman and Diu) Sched	uled Tribes order, 1968
2. Shri/Kum.	and or his/he
family ordinarily resides in village/town	
migrant / migrant (from the State of	) as per the Presidential Orde
dated 19th February, 1968.	
Signature:	
Place:	Designation: Deputy Collector
(with seal of Office)	
Date:	
NOTE: The Term "Ordinarily reside" used here will have	the same meaning as in section 20 of the

Representation of the Peoples Act, 1950.

# Government of Goa GOA COLLEGE OF ENGINEERING, FARMAGUDI

Ponda- Goa, 403401, Phone -0832-2336301/302/306, Telfax: 0832-2335021 web: <a href="www.gec.ac.in">www.gec.ac.in</a>, email: <a href="mailto:ppl@gec.ac.in">ppl@gec.ac.in</a>

#### CASTE CERTIFICATE (OBC)

# FORM OF BACKWARD CLASS CERTIFICATE OFFICE OF DISTRICT MAGISTRATE /SUB-DIVISIONAL MAGISTRATE/ MAMLATDAR

This is to certify that Shri/Kumof	son /daughter _ of village / town
of the State of Goa belongs t	74 cm.
community, which is recognised as a backward class	
Ministry of Welfare, resolution No.12011/68/93-BCC (C)	
resolution No. 12011/44/96-BCC (C) dated 6th December	
India, Extraordinary, Part I, Section I, dated 13th Sept, 1	and the second s
1996 respectively, as also mentioned under Govt. of	
LAWD/OBC dated 12.6.1987, No. 13 /25/ 92-SWDPart	dated 4.10.1995, No. 13/1/97-
SWD dated 3.3.1997, No. dated 13.5.1997, No. dated 12	2.12.1997, No. dated 23.9.1998,
No. dated 30.6.2000 as amended.	
	and or his/her family
ordinarily resides at House Noin villag	"하는 [1] [2] [2] [2] [2] [2] [2] [2] [2] [2] [2
of Goa. It is certified that he/she as on the	
belongs to persons/sections of non-creamy / creamy	
the schedule of the Government of India, Department of	f Personnel & Training O.M. No.
36012/22/93/Est)SCT) of 1993.	
Shri/Kum.	and or his/her family
ordinarily resides in village/town	
/ migrant (from the state of) as per	
February, 1968.	
	Signature:
Place:	
	Designation:
Date:	(with seal of Office)

**NOTE:** The Term "Ordinarily reside" used here will have the same meaning as in section 20 of the Representation of the Peoples Act, 1950.

#### SPONSORSHIP CERTIFICATE FROM THE EMPLOYER (for sponsored candidates only)

## **SPONSORSHIP CERTIFICATE**

(Please note that the Sponsorship Certificate must be sent on the Company's Authentic Letter Head)

	We,						hereby	Sponsor
Shri/Ku	m/M	rs					, Who	o isEmployed
with	us	from	_/_/	to	/_/	for	M.E.	Programme
			(b	ranch)	at Goa Colle	ege	of En	gineering –
Farmag	udi, P	onda Go	a. He/ She v	vill be	Permitted to	attend	Course v	work/lecture
for the e	entire	duration	ns of the Prog	ramm	e.			
Name of	f the I	nstitute/	Organisation	n				
					G: .	C.1	1	1 1
					Signat	are of th	e employe	er with seal
Date:-								

# FORMAT OF INCOME & ASSETS CERTIFICATE TO BE PRODUCED BY ECONOMICALLY WEAKER SECTION(EWS)

(To be issued by Mamlatdar of concerned Taluka)

Certificate No.		Date:	Date:		
	VALID FOR THE YEAR	₹ 2024-25			
	ertify that Shri/Kumpermanent residen <u>t of</u>		_		
Street	Post Office District	t	in the		
State/Union 1	ГеrritoryPin (	Codewho	se photograph is attested		
below belong	gs toEconomically Weaker Sections, s	since the gross annu	al income* of his/her		
'family'** is be	elow Rs. 8 lakhs (Rupees Eight Lakhs o	nly) for the financial y	ear <u>2024-25</u> . His/her		
family does no	ot own or possess any of the following a	assets***:			
I. 5 acre	es of agricultural land above;				
II. Resid	lential flat of 1000 sq.ft. and above:				
III. Resid	lential plot of 100sq.yards and above	in notified municipa	alities:		
IV. Resid	lential plot of 200 sq.yards and above	e in areas other thar	n notified municipalities:		
2. Shri/Smt./k	Kumari	belongs to	the <u>ca</u> ste		
which is not re	ecognised as a Scheduled Caste, Sche	duled Tribe and Othe	r Backward Classes (Centra		
List)					
		Signature with	seal of		
	Office				
Recent Passport size					
attested photograph of the applicant		tion			

#### Note:

<sup>\*</sup>Income covered all sources i.e. salary, agriculture, business, Profession, etc.

<sup>\*\*</sup>The term 'Family' for this purpose include the person, who seeks benefit of reservation, his/her parents and siblings below the age of 18 years as also his/her spouse and children below the age of 18 years.

<sup>\*\*\*</sup>The property held by a 'Family' in different locations or different places/cities have been clubbed while applying the land or property holding test to determine EWS status.

#### **DECLARATION OF APPLICANT**

Certified that I,	ha	ive re	ad an	d
accepted the provisions of the Prospectus, and have enclosed th	e self-atte	sted cop	oies of a	Ш
the certificates in proper order as required, and submitted the	applicatio	n compl	ete in a	ıll
respects. In the event of my application found to be deficient or i	ncomplete	, and re	jected b	Ŋ
Admitting Authority, I shall be held responsible	for tl	ne sa	me. I	,
hereby d				
furnished above are true, complete, and correct to the best of my	_			
fully aware that in the event of any information being found fals			_	
being detected before or after the admission, appropriate acti	on as dee	med fit,	by th	e
Competent Authority, can be taken against me.				
DI ACE.				
PLACE:				
(Signature of the	ne Applicar	nt)		
DATE:				
Name as signed (Write in Capital letters)				
ADDRESS :				
			_	
MOBILE: (PROVIDE MOBILE NO	) WHEDE	Λ DDI ICΛ	NT CAN	ı
BE CONTACTED) ADDITIONAL MOBILE NO.	/ LAI	NDLINE	NO	••



# M.E. ADMISSION 2025

# **CONTACT INFORMATION**

**ADMINISTRATION** 

Dr. M.S. KRUPASHANKARA **PRINCIPAL** 

Tel:0832-26336301/303 ppl@gec.ac.in

Mobile:9421281420

OTHER CONTACTS: Dr. Suraj S. Rane Prof.InCharge Academic & Exam Tel:0832-2336502

Email: <a href="mailto:ssr@gec.ac.in">ssr@gec.ac.in</a> | Mob.:9405950265

Mr. Ketan Ashok. Naik Assistant Registrar (Academic) Tel:0832-2336306 Email:kn@gec.ac.in

Dr. Milind Sakhardande Incharge Cultural Affairs Tel:0832-2336328 Email:milind@gec.ac.in|Mob.:9527527375

Mr. Suyash Sinai Khandeparkar Deputy Registrar Tel:2336302/303 Email: dr@gec.ac.in

Dr. Vinay Shirodkar Prof. Incharge -Library Tel:0832-2336390/391 Email: librarian@gec.ac.in

Dr. Ganesh Hegde Chief Warden, Hostel Mob.:9420978458 Email: gh@gec.ac.in



Bhausaheb Bandodkar Technical Education Complex Farmagudi, Ponda- Goa Ph: 0832-2336306, Fax: 0832-2336301, email: ppl@gec.ac.in

