



V.V.P.
ENGINEERING COLLEGE
AICTE Approved & Affiliated to GTU, Ahmedabad

BIOSYNTHESIS

Jan To June - 2026

**BIOTECHNOLOGY ENGINEERING
DEPARTMENT**

MESSAGE FROM TRUSTEES



India's energy transition is init sown interest because, other wise economic growth would not be sustainable and human security would be at stake, since millions of climate refugees are created due to the devastating consequences of climate change. The Prime Minister has committed to increase renewable energy and reach 500GWtargetby2030, which I sonly 100GWin2021.

Our wind energy production is only 12.5% of the total potential and solar energy production is only 4.6 % of the total potential, a challenging task to tap un used resources.

The Prime Minister has announced the launch of the National Hydrogen Energy mission.

Green Hydrogen is a major component of renewable capacity of energy.

Engineering problems of cost, scale, adopting new technologies; working out distribution chains and storage of Hydrogen should be met by the government, bureaucracy, universities, engineers and technocrats by a coordinated policy and its implementation.

MESSAGE FROM PRINCIPAL



Dr. Piyush Vanzara
Principal

At V V P Engineering college, our vision is to transform our students into competent professionals by nurturing intellectual curiosity, inspiring creativity, and equipping students with the knowledge and skills needed to thrive in an ever-evolving world. We aim to be an exemplary institution that empowers individuals to reach their full potential, promotes interdisciplinary collaboration, and addresses global challenges.

We envision a future where our students not only excel academically but also grow as responsible and ethical leaders who contribute meaningfully to society. Our commitment to excellence in education and holistic development will ensure that our graduates are prepared to make a positive impact on the world in their respective fields and communities.

With a focus on continuous improvement, we strive to be a place where diverse perspectives are celebrated, and where all members of our community—students, faculty, and staff—work together to create a sustainable, prosperous future for all. Let us move forward with a shared sense of purpose and dedication for shaping the engineers of tomorrow.

ABOUT V V P ENGINEERING COLLEGE

Vyavasayi Vidya Pratishthan is established by Rajkot Nagarik Sahakari Bank Ltd. to promote quality education in various technical fields. The trust was founded in 1996 with the objective of meeting technical educational needs of Gujarat

The trust prides itself of establishing the first engineering college in Rajkot, the central location of Saurashtra and Kutch region.

V.V.P. Engineering College is a self-financed institution affiliated to Saurashtra University and Gujarat Technological University, recognized by All India Council for Technical Education (AICTE), New Delhi and the Government of Gujarat.

It has a specially designed on 30 acres of land with spacious building providing an adequate infra-structural facility setup in a beautiful natural surroundings. It is landscaped with enlivened architecture that creates conducive environment of learning. The campus is located 10 Km on Kalawad Road, the west of Rajkot, with transportation and conveyance facilities.

VVP Engineering College is one of the best engineering colleges in India catering holistic growth to the students. It is providing state of the art facilities to the students. The institute has many schemes and offers for well education of the students.

VISION

To be an exemplary institute transforming students into competent professionals with human values.

MISSION

To Provide a conducive academic environment for strengthening technical capabilities of the students.

To Strengthen linkages with industries, alumni and professional bodies.

To Organise various co-curricular and extra curricular activities for overall development of students.

To Practice good governance and conduct value-based activities for making students responsible citizens.

MESSAGE FROM HEAD OF DEPARTMENT



Prof. Pooja Chavda
Head of Department

It gives me great pleasure to address you through this departmental e-bulletin. Biotechnology Engineering is a dynamic and interdisciplinary field that integrates biological sciences with engineering principles to address challenges in healthcare, agriculture, industry, and environmental sustainability. Our department is committed to developing technically competent, ethically responsible, and innovation-driven graduates.

We emphasize a strong foundation in theory complemented by hands-on laboratory training, research exposure, industry interaction, and interdisciplinary learning. The active involvement of our students and faculty in research projects, publications, internships, workshops, and outreach activities reflects our dedication to academic excellence and continuous growth.

This e-bulletin provides a platform to highlight the achievements and activities of our department. I extend my sincere appreciation to our faculty, students, alumni, and industry partners for their continued support, and I encourage everyone to actively contribute and engage as we work together to advance biotechnology education and research.

ABOUT BIOTECHNOLOGY ENGINEERING DEPARTMENT

Biotechnology engineering is the study, research, development and application of living organisms to manufacture various bio products. The Biotechnology engineering course incorporates the combination of subjects like math's, chemistry, genetics, bio-chemistry, molecular biology, process design etc. the Biotechnology contributes to the upliftment of the fields like agriculture, pharmaceutical (disease research and drug design), Environment (eco-conservation), production of fertilizers, vaccines manufacturing, energy production as well as the areas like animal husbandry, food technology etc.

The department is set with state-of-the-art equipments in laboratories for microbiology and immunology, biochemistry, molecular biology, plant cell culture (Tissue culture), bioinformatics, bioprocess technology and downstream processing. Separate chemical room and computer lab is also available. The department has research facilities housing advanced equipment like PCR, UV-VIS Spectrophotometer, refrigerated centrifuges, high speed centrifuge and basic equipment like electrophoresis systems, microscopes etc. to cater the needs of students.

Vision

To become a leader in biotechnology education and research, which shapes young minds into professionals with strong moral and human values.

Mission

To provide strong academic foundation and inculcate technical competencies in students, to capacitate them to address technical problems and instill a life-long learning attitude.

To mould students into well-groomed engineers by providing ecosystem favoring innovation, creative thinking, team spirit and by promoting leadership and entrepreneurial qualities.

To create clear and reliable governance through an ideal and humanitarian approach.

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INDUSTRIAL VISIT



Industrial visit at NFDD Lab Saurashtrauniversity

Department of Pharmaceutical Sciences VISIT at Saurashtra University:

The students of Semester IV and VI of the Department of Biotechnology Engineering, V.V.P. Engineering College, participated in an educational visit to the Department of Pharmaceutical Sciences, Saurashtra University. The visit was organized to provide students with practical exposure to advanced analytical instruments and research methodologies widely used in biotechnology and pharmaceutical research.

During the visit, students gained valuable insights into various analytical techniques, including GC-MS (Gas Chromatography–Mass Spectrometry), LC-MS (Liquid Chromatography–Mass Spectrometry), UV-Visible Spectrophotometry, FTIR (Fourier Transform Infrared Spectroscopy), TLC (Thin Layer Chromatography), and Mass Spectrometry. Expert demonstrations enabled students to understand the working principles, applications, and significance of these sophisticated instruments in research and quality analysis.

The students also observed pharmaceutical manufacturing processes, including tablet and dosage form production using specialized equipment. These live demonstrations helped them appreciate the practical implementation of analytical and manufacturing technologies in scientific and industrial settings. The visit provided an excellent opportunity for students to connect theoretical concepts with real-world applications, enhancing their understanding of how advanced analytical tools support biotechnology research, drug development, quality control, and innovation in life sciences.

ALUMNI INTERACTION : (I)



Alumni Interaction with Jilka Kishan

Alumni Interaction Session: Exploring Biotech Diversity and GATE Preparation
The Biotechnology Engineering Department at V.V.P. Engineering College organized an insightful alumni interaction session on January 28, 2026, featuring Mr. Kishan Jilka, an esteemed alumnus, B.E. Biotechnology graduate, and GTU Gold Medalist of 2024. Held in the BI Lab from 1:00 P.M. onwards, the event was specifically designed for students of the 4th and 6th semesters to bridge the gap between academic learning and industry realities. Mr. Jilka shared his valuable expertise on the core topic, "Biotech Field Diversity and GATE Exam Guidance," shedding light on the vast career landscapes awaiting future biotechnology engineers.

During the interactive session, Mr. Jilka provided the attendees with practical strategies and guidance for cracking the highly competitive GATE examination, drawing from his own successful academic journey. He emphasized the immense potential within various sub-fields of biotechnology, motivating students to identify their core areas of interest early on. The engaging dialogue gave students a clearer understanding of post-graduation pathways, higher education opportunities, and industry expectations, making it a highly impactful and successful event for the department.

ALUMNI INTERACTION : (II)



Alumni Interaction with Dr.Soham Trivedi

The Biotechnology Engineering Department of V.V.P. Engineering College successfully organized an Online Alumni Talk on April 30, 2026, tailored for Semester 4 and 6 students. The expert session, titled "Industry Expectations from Biotechnology Students: Interview Skills and Career Readiness," was delivered by distinguished alumnus Dr. Soham Trivedi, Assistant Professor in the Biotechnology Department at Parul University, Baroda. Hosted at the GBT Lab starting at 11:00 AM, the talk provided students with invaluable insights into bridging the gap between academia and industry requirements. Dr. Trivedi shared crucial guidance on mastering interview techniques and cultivating essential skills to ensure corporate readiness in the evolving biotechnology sector.

Expert Lecture: (I)



Expert Lecture by Dr. Ramesh Kothari

Expert Lecture: “Wonderful World of Microbes”

An expert lecture on “Wonderful World of Microbes” was organized on 25 July 2026 for the students of Semester 2, 4, and 6 of the Biotechnology Engineering Department. The session was delivered by Dr. Ramesh K. Kothari, Professor and Head, Department of BioSciences, Saurashtra University, Rajkot. Dr. Kothari is a renowned microbiologist with extensive research contributions in environmental microbiology, biodegradation, probiotics, microbial genomics, and biotechnology. During the lecture, he introduced students to the fascinating diversity of microorganisms and highlighted their indispensable roles in maintaining ecological balance, human health, agriculture, and various industrial applications.

The lecture emphasized the immense potential of microbes in solving modern environmental and biomedical challenges through biodegradation, bioremediation, sustainable technologies, and advanced genomic approaches. Dr. Kothari also shared insights from his research on microbial biotechnology and encouraged students to explore research opportunities in microbiology and biotechnology. The interactive session motivated students to appreciate the unseen microbial world and understand its significance in scientific innovation and sustainable development. The lecture concluded with a question-and-answer session, where students enthusiastically interacted with the speaker and gained valuable guidance for their academic and research careers.

Expert Lecture: (II)



Expert Lecture by Dr. Shweta Bhatt

Expert Lecture on Biofilm Formation by Dr. Shweta Bhatt

The Biotechnology Engineering Department at V.V.P. Engineering College organized an expert lecture on Biofilm Formation on March 13, 2026. The session was delivered by the distinguished expert, Dr. Shweta Bhatt from Atmiya University, who shared her extensive knowledge on the mechanisms, development, and real-world implications of microbial biofilms. Attended by eager engineering students, the lecture delved deep into how microorganisms adhere to surfaces and form resilient communities, bridging fundamental microbiological concepts with practical engineering challenges in industry and healthcare. The interactive session concluded with an engaging Q&A, leaving students with a profoundly enhanced understanding of advanced biotechnological research.

Expert Lecture: (III)



Expert Lecture by Mr. Pritesh Sabara

A distinguished expert lecture series by appointed Professor on Practice Dr. Pritesh Sabara, Scientist-B, Gujarat Biotechnology Research Centre (GBRC) on Metagenomics and Metabolomics was delivered, for the students of Semester IV and VI of the Department of Biotechnology Engineering, V.V.P. Engineering College.

The session provided an in-depth understanding of the theoretical foundations and emerging applications of metagenomics and metabolomics in biotechnology, healthcare, environmental sciences, and microbial research. Dr. Sabara shared valuable insights into modern analytical approaches, data interpretation strategies, and recent advancements in omics technologies.

The lecture was further enriched with demonstrations of practical bioinformatics tools and workflows used for metagenomic and metabolomic data analysis. Students gained exposure to real-world applications, analytical methodologies, and research perspectives, making the session highly informative and industry-relevant. The interactive discussion encouraged students to explore the growing opportunities in omics-based research and innovation.

State Level Seminar(Gujcost/Dsi)



The Department of Biotechnology Engineering, V.V.P. Engineering College, successfully organized a GUJCOST-sponsored State-Level Seminar on “Unveiling the Code: Advances in Genetic Disorder Diagnosis & Molecular Techniques” on 27–28 March 2026. The two-day seminar provided a comprehensive platform for students, researchers, and academicians to explore recent advances in genetic diagnostics, molecular biology, and genomic medicine.

The seminar featured eminent experts from the field of genomics and molecular diagnostics. Dr. Harsh Sheth, Associate Professor and Head of the Advanced Genomic Technologies Division at FRIGE's Institute of Human Genetics and Founder & CSO of Decipher DNA Pvt. Ltd., delivered an insightful lecture on the fundamentals and recent advancements in genetic disorder diagnosis. Through clinical case studies, he explained the evolution of diagnostic techniques from conventional karyotyping to advanced Next-Generation Sequencing (NGS) technologies.

Dr. Vishal Nanavaty, Dean and Head of Research Core Service at Neuberg Centre for Genomic Medicine and DBT-Ramalingaswamy Fellow, shared valuable perspectives on genomic medicine, molecular diagnostics, and translational research. His session highlighted the integration of epigenomics, transcriptomics, and gut microbiome studies for disease biomarker discovery and precision healthcare.

The seminar introduced participants to modern molecular techniques such as PCR, Sanger sequencing, microarray analysis, and NGS, while also emphasizing their applications in disease diagnosis and biomedical research. The program fostered interdisciplinary learning and strengthened students' understanding of emerging trends in molecular biology, genetic disorders, and personalized medicine, thereby enhancing their preparedness for future research and professional endeavors in biotechnology.

College Level Poster Presentation



Poster presentation Judge Dr. Sangita Gohel

The Poster Presentation event was successfully organized on [Date] at our department, providing students with an opportunity to showcase their research ideas, scientific understanding, and presentation skills. We were privileged to welcome Dr. Sangita Gohel from Saurashtra University as the esteemed judge for the event. Dr. Gohel evaluated the presentations based on scientific content, innovation, clarity of communication, and overall presentation quality. Her insightful observations, constructive feedback, and encouragement motivated students to strengthen their academic and research perspectives. The event concluded successfully with active participation and appreciation for the efforts and creativity demonstrated by all participants.

Department Initiative



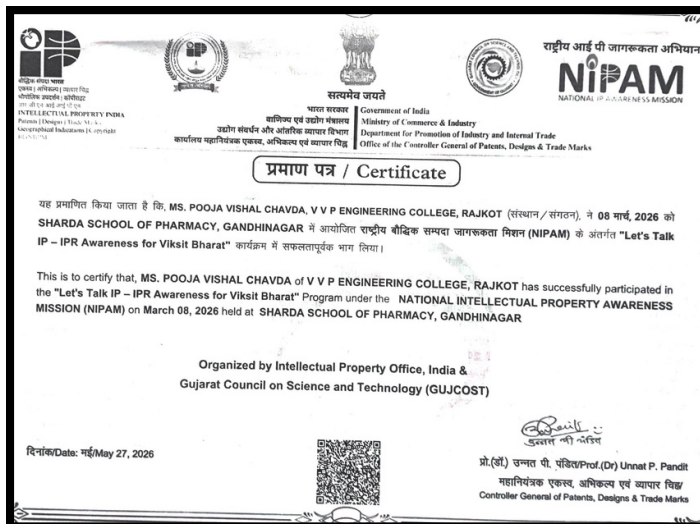
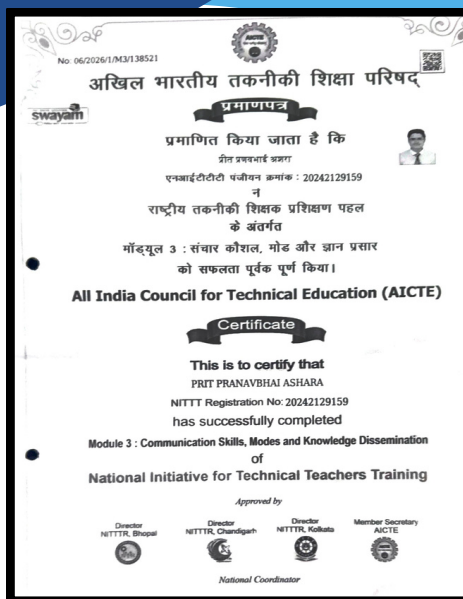
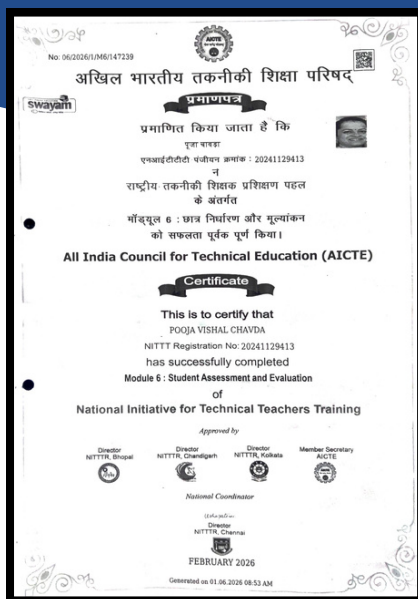
Python Course for semester- 4 & 6 Students

To enhance the technical competencies of Biotechnology students and prepare them for the evolving demands of the biotechnology and data-driven research sectors, a specialized Python Programming Course was organized. The course covered Python fundamentals and progressively introduced students to practical applications relevant to scientific computing, data analysis, and biotechnology.

Through hands-on learning sessions, students gained exposure to programming concepts, problem-solving techniques, and the use of Python as a powerful tool for research and data analysis. The initiative aimed to bridge the gap between biological sciences and computational technologies, empowering students with essential digital skills required in modern biotechnology.

An assessment test was conducted at the end of the course to evaluate the students' understanding and application of the concepts learned. The program successfully provided Biotechnology students with valuable insights into Python programming, helping them become more technologically proficient and industry-ready in today's rapidly advancing scientific landscape.

Faculty Participation and Achievement

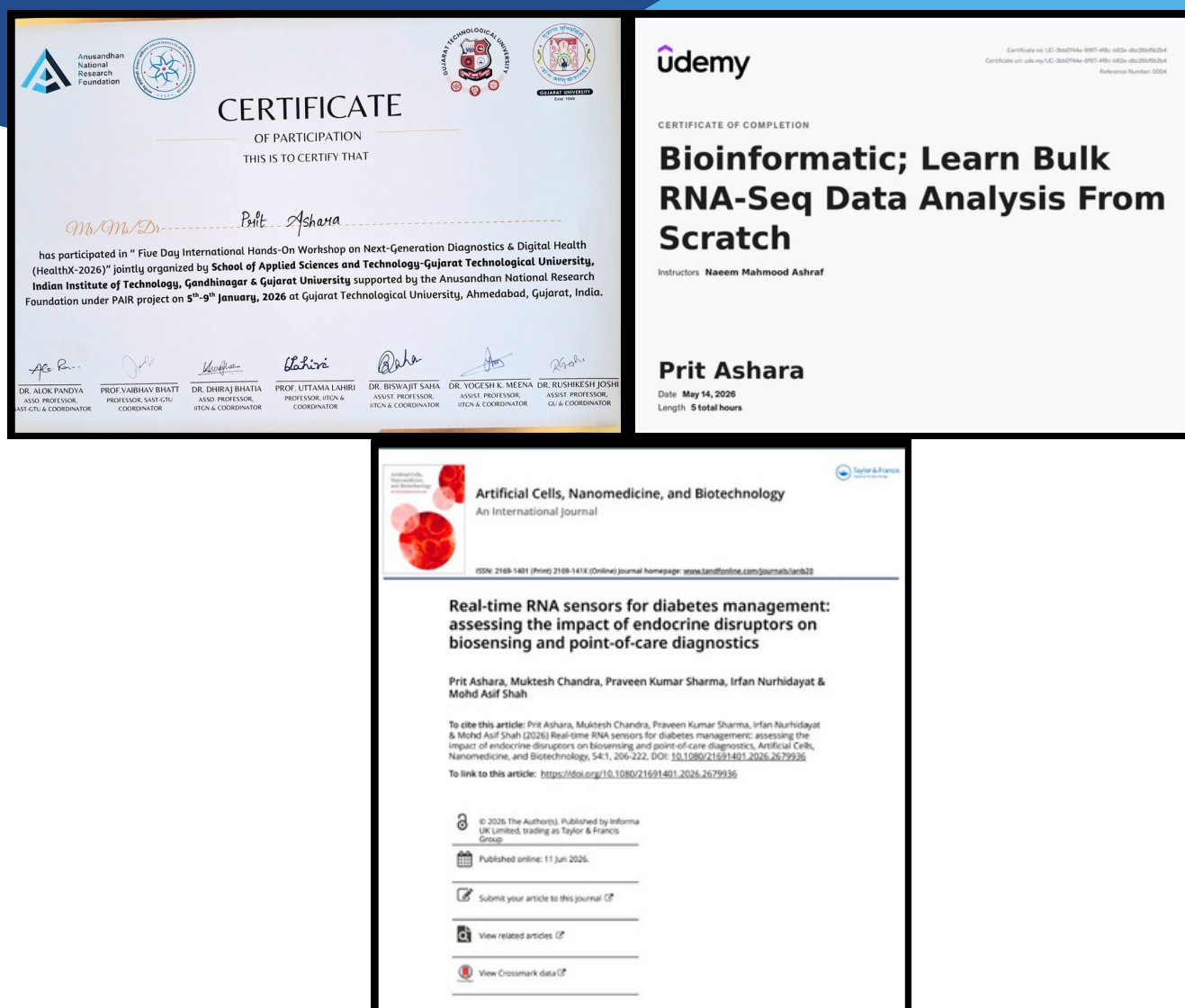


(1) Prof. Pooja V Chavda has Successfully completed Module-6
Subject : Student Assessment and Evaluation from NITTT(AICTE)

(2) Prof. Pooja V Chavda has Successfully participated in the “ Let’s Talk IP-IPR Awareness for Viksit Bharat” Program under the (NIPAM) Sharda School of Pharmacy, GANDHINAGAR

(1) Prof. Bhavika P Turakhia has effectively finished Online certificate program in Applied AI techniques for Nanobiotechnology Research and Development.

Faculty Participation and Achievement



- (1) Prof. Prit P Ashara has Successfully completed Module-3
Subject : Communication Skills, Models and Knowledge Dissemination from NITTT(AICTE)
- (2) Pfof. Prit P Ashara has Participated in “Five day International Hands on Workshop on Next Generation Diagnostics & Digital Health (Health -2026)” Jointly organized by School of Applied Science and technology and IIT Gandhinagar.
- (3) Pfof. Prit P Ashara has Completed course of Bioinformatic: Learn Bulk RNA -Seq data Analysis from Scratch
- (4) Pfof. Prit P Ashara has Paper publish in Artificial Cells, Nano medicine, and Biotechnology
An International Journal (Taylor & Francis)

Student Participation and Achievement

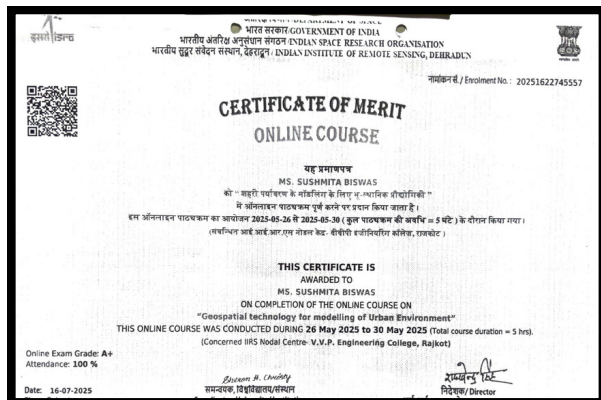


INTERNATIONAL CONFERENCE ON BIO ENGINEERING - 2026 (SRM)

Semester-4 Biotechnology Engineering Students

- Pranav Lunagariya
- Bavarya Rutvi
- Bhuva Rushil
- Makwana Devanshi

Participated or Presented poster at the International Conference on Bioengineering, Organized by the school of Bioengineering, SRM Institute of Science and Technology



Semester-6 Biotechnology Engineering Students

- Anna Bhowmik
- Sushmita Biswas

Attended In Online Course on “Overview of Global Navigation Satellite System”
ISRO-Indian Institute of Remote Sensing, DEHRADUN

Student Participation (I)

- **Student Participation In National Science Symposium**

Total No.of Students	Semester	Event Name
18	4th	16th National Science Symposium on Recent Trends in Science and Technology, Christ College,Rajkot

- **Student Participation In National Three days Hands on Workshop**

Total No.of Students	Semester	Event Name
9	6 th	Three days national Hands-On Workshop on "Molecular Detection of Plant Viruses using Polymerase chain Reaction (MDPVP-2026)Jointly organized by GTU-School of Applid Sciences and Technology GTU and IIT-Gandhinagar

Student Participation (II)

- **Student Participation In Research Poster Presentation**

Total No.of Students	Semester	Event Name
14	2 nd	Research poster presentation college/Department level
14	4 th	

- **Student Participation In Shaurya Techfest-2026**

Total No.of Students	Semester	Event Name
15	2 nd	SHAURYA (TECHFEST) 2026 Event Coordinator
12	4 th	
08	6 th	

Student Participation (III)

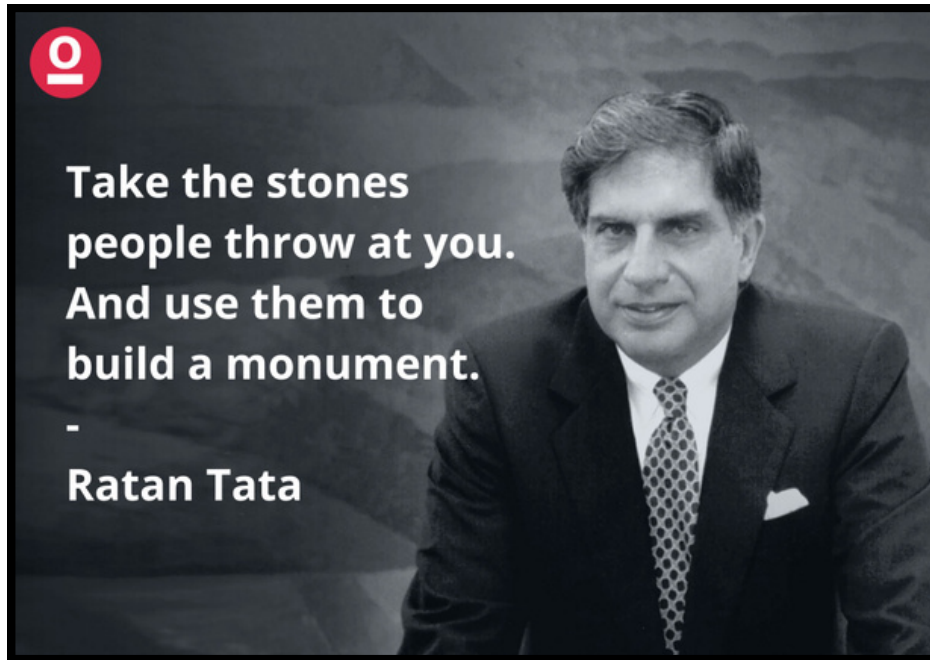
- **Student Participation In Outdoor Sports**

Total No.of Students	Semester	Event Name
02	4 th	Volleyball out door Sports

- **Student Participation In Indoor Sports**

Total No.of Students	Semester	Event Name
02	2 nd	Indoor Sports Chess Tournament

Positive Quote



STUDENTS' PLEDGE

વી.વી.પી. એન્જનીયરીંગ કોલેજના વિદ્યાર્થીઓ માટેની પ્રતિજ્ઞા

પ્રતિજ્ઞા

અમે,
વી.વી.પી.

એન્જનીયરીંગ કોલેજના
વિદ્યાર્થીઓ, સંકલ્પ કરીએ છીએ કે,
અમે શ્રદ્ધા, સંયમ, શિસ્ત,
એકાગ્રતા અને પુરુષાર્થથી, જ્ઞાન પ્રાપ્ત કરી,
રચનાત્મક અને હકારાત્મક અભિગમ કેળવી,
સામર્થ્યવાન ઇજનેર બની,
વિશ્વના મંગલ વિકાસ માટે,
ભારતમાતાને, પ્રથમકક્ષાની,
મહાસત્તા બનાવવા,
અવિરત
પુરુષાર્થ
કરતા રહીશું.

**ભારત
માતા કી
જય**

राष्ट्राय स्वाहा इदं न मम ।



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