



FOUR YEARS
GRADUATION
B. TECH
(CS&E)

BACHELOR OF TECHNOLOGY IN
COMPUTER SCIENCE & ENGINEERING

FACULTY OF ENGINEERING AND TECHNOLOGY

ABOUT GLS UNIVERSITY

The zenith value of GLS University is to provide an ideal and innovative learning environment and continue the tradition of excellence in the education of the sponsoring body of the University, viz... Gujarat Law Society (GLS). GLS established in the year 1927, is one of the largest and oldest educational institutions in the state of Gujarat. GLS was promoted by luminaries Sardar Vallabhbhai Patel, Shri Ganesh Mavlankar, the first Speaker of the country, and Shri I. M. Nanavati with the vision of Excellence in Education. GLS University was established in April 2015 under Gujarat Private University Act-2009. In a short span, GLS University has become a Prestigious University with 15,000+ students 10+ departments, and 30+ programs in diverse disciplines like Business Management, Design, Law, Computer Application, Engineering, Commerce, Performing Arts, and Research at Undergraduate and Post Graduated levels which provides enhanced learning experiences through their excellent academic quality, well-equipped infrastructure, innovative teaching methods, creative curricular design, experienced faculty, and industry-oriented programs.



GLS University is a modern organization that retains the cultural & heritage values of providing a creative learning environment in a manner that is nationally entrenched, regionally recognized, and globally relevant. GLS University is a safe and inviting space with student-centric infrastructure located in the heart of Ahmedabad. Within the lush green campus of the University, students avail all the facilities of learning and recreation such as modern classrooms, computer labs, library, indoor and outdoor sports areas, gym, seminar halls, auditorium, canteen, and so on.

With its heritage in Gujarat's pioneering education field, GLS University has been an innovative force in education for many years. Our strong relationships with industry and impeccable career services complement high-quality teaching to ensure GLS students gain the knowledge and skills they need to match their ambition. Our academicians are experts in their fields and driven to deliver research that makes a meaningful social and environmental impact on the nation.

GLS University is also known as an education hub with liberal thoughts and rigorous learning along with policy from NEP - 2020. We offer flexible entry-exit options in relevant programs and also a dual degree program to accelerate the multi-discipline approach for students. GLS University also aligns with an industry-oriented curriculum and offers an industry apprenticeship program through various corporate collaborations which leads the university to focus on experiential learning.

Our new strategic plan is supported by three key pillars which provide a foundation for GLS University to focus on and expands over the next 10 years through meeting societal needs; expanding GLS University's global presence; and promoting skill-based education.

GLS University offers students a high-quality educational experience that prepares them for success in life, as well as research that addresses society's most persistent challenges. Our creation and transfer of knowledge contribute every day to our country's global competitive advantage and make the world a better place.



FROM THE PRESIDENT'S DESK

Dear Prospective Students,

Delighted to extend a warm welcome to you as you contemplate becoming a part of our vibrant academic community here at GLS University. As President, it is a matter of pride to lead an institution devoted to nurturing intellectual curiosity, personal development, and a dedication to excellence.

Selecting the right university is an important decision, and I want to assure you that GLS University is dedicated to providing an outstanding educational experience that will equip you for success in your future endeavours.

At GLS University, you will encounter a diverse and inclusive community of scholars, researchers, and students who are deeply passionate about effecting positive change in the world. Our faculty members are esteemed experts in their respective fields, and they are committed to assisting you in your academic and personal growth every step of the way. Whether your interests lie in the arts, sciences, business, or any other discipline, GLS University offers a broad spectrum of programs and opportunities for you to explore your passions. From leading-edge research to hands-on experiential learning, you will have access to resources and experiences that will empower you to realize your full potential.

In addition to academics, GLS University boasts a vibrant campus life with a plethora of extracurricular activities, clubs, and organizations to facilitate connections with peers who share your interests and values. From community service to cultural events and athletic competitions, there are boundless opportunities for you to engage and make meaningful contributions to our campus and beyond.

As you embark on this thrilling journey of higher education, I encourage you to discover all that GLS University has to offer. Take a tour of our campus, engage with faculty and students, and envision yourself as an integral part of our dynamic community. I am confident that you will find GLS University to be a place where you can flourish, excel, and forge enduring memories that will shape your future.

Thank you for considering GLS University for your academic aspirations. I eagerly anticipate welcoming you to our campus and providing support as you pursue your path to success.

Warm regards
Sudhir Nanavati
President

B.Tech (CS&E) PROGRAMME

Welcome to the B.Tech (Computer Science and Engineering) programme at GLS University, where we empower the next generation of computer scientists and engineers to innovate and excel in the dynamic world of technology.

Our programme spans 8 semesters, designed to provide students with a comprehensive understanding of both theoretical foundations and practical applications in computer science and engineering. The first six semesters form the foundation, emphasizing the conceptual and practical aspects essential for a strong engineering background.

Throughout these initial semesters, students engage in rigorous coursework covering a broad spectrum of subjects, including mathematics, programming languages, data structures, algorithms, computer architecture, software engineering, communication and presentation skills, and more. With a balanced blend of theoretical knowledge and hands-on experience, students develop the skills necessary to tackle real-world challenges in the field of computer science and engineering.

As students' progress through the programme, they delve deeper into advanced topics, exploring emerging technologies and cutting-edge concepts shaping the industry. In the final two semesters, the focus shifts towards domain specialization and practical application through industry projects.

During this phase, students have the opportunity to choose from a range of specialized tracks tailored to their interests and career aspirations. Whether it's artificial intelligence, cybersecurity, machine learning, data analytics, or another specialized area, students can immerse themselves in in-depth study and hands-on projects under the guidance of experienced faculty and industry mentors.

The culmination of the programme is the industry project, where students apply their knowledge and skills to solve real-world problems faced by organizations. This immersive experience not only provides valuable insights into industry practices but also fosters collaboration, critical thinking, and innovation.

At GLS University, we are committed to nurturing well-rounded professionals equipped with the expertise and mindset to thrive in today's rapidly evolving technological landscape. Our four year B.Tech programme in Computer Science and Engineering is designed to ignite curiosity, inspire creativity, and prepare students for successful careers at the forefront of innovation. Join us as we embark on this exciting journey of exploration, discovery, and transformation in the world of computer science and engineering.

Career PROSPECTS



**Computer
Scientist**



**Web
Developer**



**Data
Analyst**



**Web
Designer**



**Data
Engineer**



**Software
Developer**



**Business
Analyst**



**Business
Intelligence
Analyst**



**Data
Architect**



**Computer
Programmer**

STRIKING FEATURES

Specialization in 3 trending domains of IT sector













Data Analytics



Cyber Security



Artificial Intelligence & Machine Learning

		97 years of rich legacy of Gujarat Law Society		21 years of experience and expertise in IT education
50+ Foreign University collaboration under International Immersion programme		4 years programme designed to offer in-depth knowledge into computer science and engineering		
Associations with more than 100+ reputed IT companies		Programme designed using Open Source Technologies as a delivery platform		
Student centric learning pedagogy systems		Faculty team comprising of Academicians, IT managers and consultants		Real life problem solving using Capstone Project spread across 2 semesters
4 months full time Industry Internship in upcoming technologies of computer science and engineering		A university with high rate and excellent student support		

CURRICULUM LAYOUT

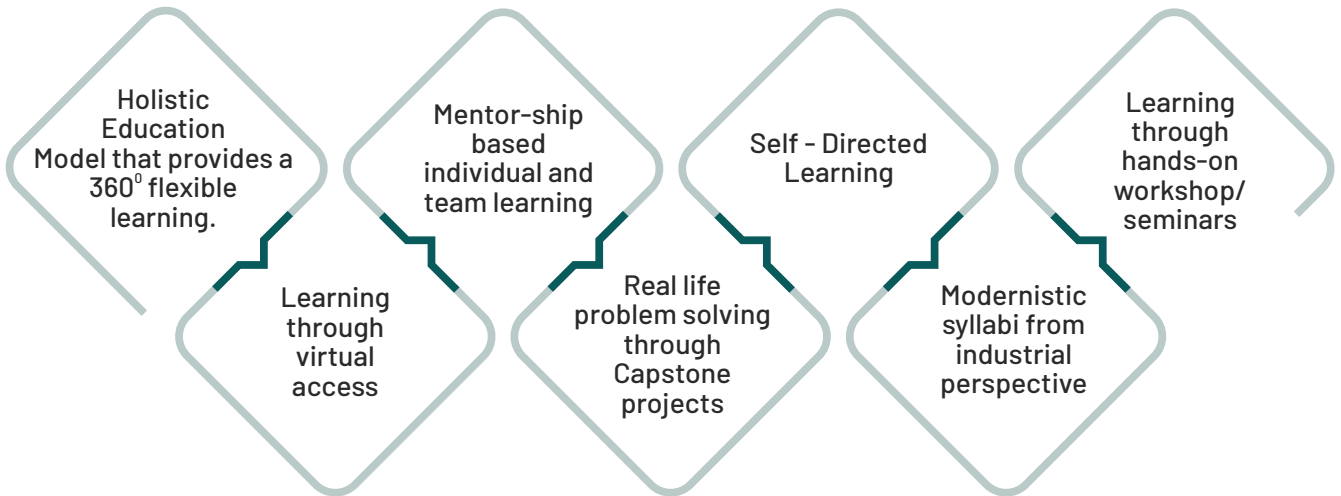


Semester – I	Semester – II	Semester – III
<ul style="list-style-type: none"> Business Communication and Presentation Skills Elementary Mathematics for Engineers Environmental Studies Computer Programming Paradigm Computer Programming Laboratory Computer Organization & Architecture Practicals of Computer Organization & Architecture Open Source Software 	<ul style="list-style-type: none"> Elements of Indian History for Engineers Linear Algebra Universal Human Values and Value Education Data Structures Programming of Data Structures Relational Database Management System Programming of Relational Database Management System Computer Networks 	<ul style="list-style-type: none"> Economics for Engineers Discrete Mathematics Technical English Object Oriented Computer Programming Object Oriented Computer Programming Laboratory Operating Systems Linux Scripting Design and Analysis of Algorithms MOOC1 – Core Java
Semester – IV	Semester – V	Semester – VI
<ul style="list-style-type: none"> Differential Equations and Multivariate Calculus Formal Languages & Automata Theory Microprocessors and Microcontroller Scripting Languages Practicals using Scripting Languages Advanced Java Programming in Advanced Java Cryptography & Information Security 	<ul style="list-style-type: none"> Probability and Statistics Compiler Design Structured & Object Oriented Analysis and Design Artificial Intelligence Python Programming Laboratory Capstone Project I Track # Subject 1 Track # Practical 1 	<ul style="list-style-type: none"> Blockchain Technology Cloud Computing and Virtualization Machine Learning Machine Learning Laboratory Mobile Application Development Laboratory Capstone Project II Track # Subject 1 Track # Practical 1
Semester – VII	Semester – VIII	
<ul style="list-style-type: none"> Software Engineering Human Computer Interaction Innovation, Start-up & Entrepreneurship Track # Subject 1 Track # Subject 2 Track # Practical 1 Track # Practical 2 	<ul style="list-style-type: none"> Industry/Research Internship 	

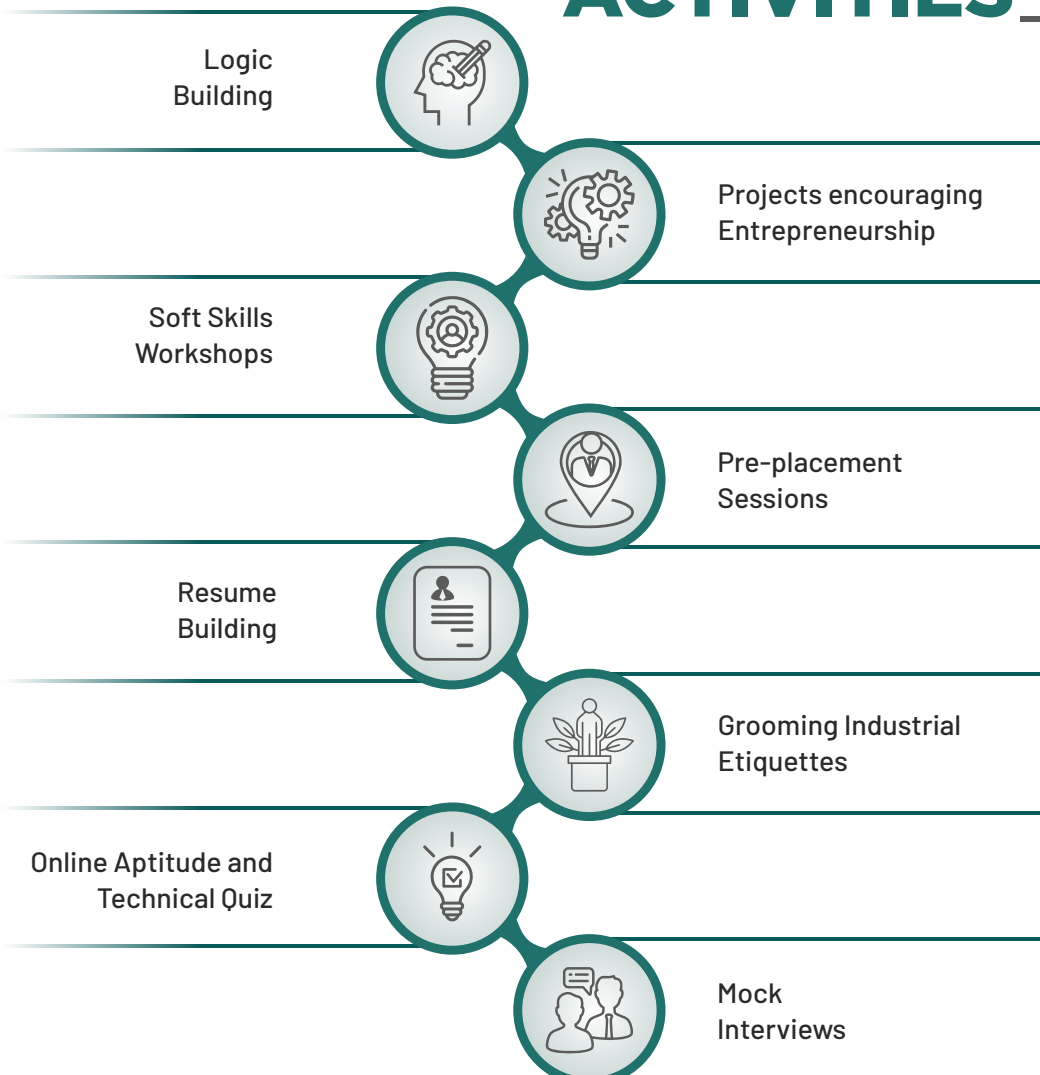
Elective Track Subjects

	Data Analytics	Cyber Security	Artificial Intelligence and Machine Learning
Semester – V	<ul style="list-style-type: none"> Introduction to Data Science Data Science Laboratory using R 	<ul style="list-style-type: none"> Cyber Crimes, Cyber Laws and Cyber Security Cyber Security Laboratory 	<ul style="list-style-type: none"> Digital Image and Video Processing Digital Image and Video Processing Laboratory
Semester – VI	<ul style="list-style-type: none"> Unstructured Databases and Data Mining Unstructured Databases and Data Mining Laboratory 	<ul style="list-style-type: none"> Vulnerability Assessment & Penetration Testing Vulnerability Assessment & Penetration Testing Laboratory 	<ul style="list-style-type: none"> Recommender Systems Recommender Systems Laboratory
Semester – VII	<ul style="list-style-type: none"> Optimization Techniques Big Data Analytics Big Data Analytics Laboratory Data Visualization & Analytics Tools Laboratory 	<ul style="list-style-type: none"> Critical Infrastructure Security Cyber Security Framework Network and File System Forensics Laboratory Android Security Laboratory 	<ul style="list-style-type: none"> Deep Learning Natural Language Processing Deep Learning Laboratory Natural Language Processing Laboratory

INNOVATIVE PEDAGOGY



CAREER CENTRIC ACTIVITIES



ART AND CULTURE

The department fosters equal opportunities for students to showcase their talents through cultural events like Talent Hunt and Youth Festival, revealing a diverse range of skills. Such activities underscore the university's dedication to holistic education, nurturing both academic and creative development. Moreover, a strong emphasis on sportsmanship prepares students for success in their careers.



SPORTS

The department fosters student participation in various athletic events, including the University Sports Fest, promoting sportsmanship and resilience alongside academics. Students engage in cricket, volleyball, football, and chess, with many earning accolades. Annual sports festivals witness enthusiastic participation from our department's students.



TECHFEST

The FET department of GLS University had organized CYBERSHADEZ 2024, a two-day technology fair with a "Computational Intelligence" theme. The event commenced on February 10, 2024, with a hybrid inauguration ceremony, attracting over 1300 participants from 50 institutes across nine Indian states. The fair featured 21 technical activities and concluded with a month-long Techathon, showcasing innovations nationwide.



SOCIAL RESPONSIBILITIES

The department prioritizes social responsibility through community-beneficial activities such as Blood Donation Camps, where staff and students unite to potentially save lives. Facility Analysis programs evaluate and improve facilities for local community and student needs. These initiatives foster a culture of giving back, instilling students with civic responsibility and social consciousness beyond the university campus.



INFRASTRUCTURAL AMENITIES

Classrooms and Halls:

- Fully outfitted air-conditioned classrooms, lecture halls, tutorial rooms, and conference rooms with projection systems.

Computer facilities:

- Well-equipped computer labs for hands-on practical training that are curriculum-aligned.
- Separate experimental laboratory equipped with Open-Source Software and IoT devices for impromptu experimentation.
- More than 150 PCs are running Ubuntu 22.04 LTS, with 60 running Mac OS.

Internet and Connectivity:

- Dedicated multiple high-speed Internet connections at 100.0 Mbps.
- A cutting-edge HP Aruba system powers campus-wide WiFi.

Library Resources:

- Extensive library resources, including over 10,000 volumes and 5000 ebooks in computer science, engineering, and information technology.
- Access to approximately 50 periodicals, including open-access journals in computer science, engineering, and related fields.
- Access to IEEE CSDL



SEMINARS



The Faculty of Engineering and Technology hosts thought-provoking seminars annually, aiming to broaden students' perspectives and deepen comprehension. Covering topics like cyber security, artificial intelligence, nature, and the Ramayana's relevance, these seminars foster holistic learning and creativity. Through engaging lectures and interactive conversations, students explore new trends, vital concerns, and timeless knowledge.

CLUBS



The department offers diverse clubs catering to specific interests and skills. The Cubing Club fosters problem-solving skills and camaraderie among Rubik's Cube enthusiasts. The Google Development Students' Club explores latest Google technologies, fostering innovation. The Coding Club refines coding skills, hosts contests, and encourages collaboration. These groups enhance the academic program and promote creativity and technical prowess among Faculty students.

EDUCATIONAL TRIPS



The department's commitment to holistic student development extends beyond classrooms through educational excursions.

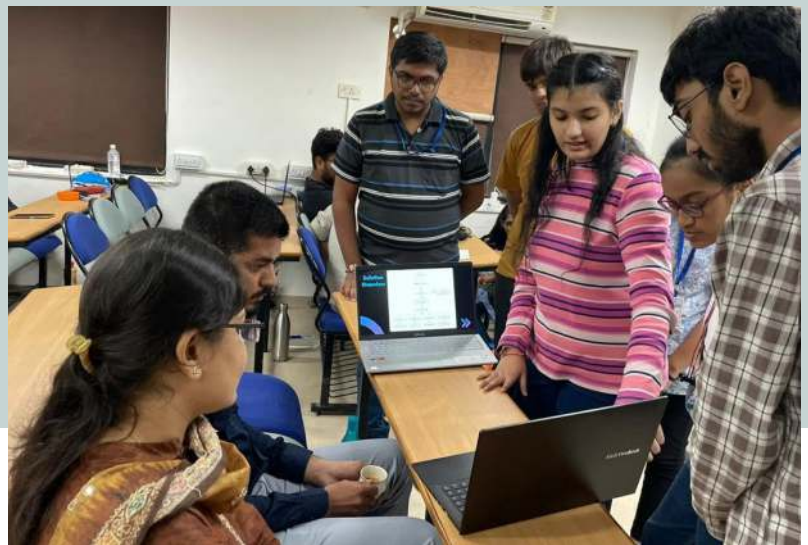
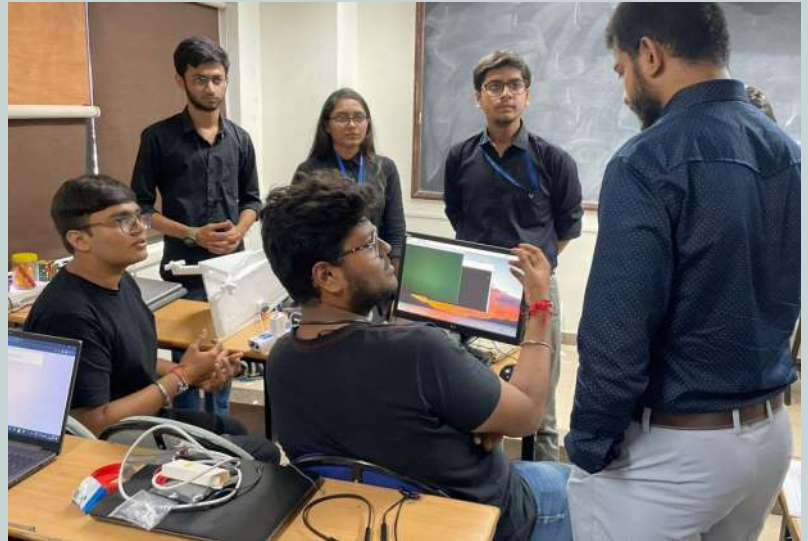
Field trips to institutions like ISRO expose students to cutting-edge technology, inspiring exploration in their fields.



Cultural excursions to places like Gujarat's Kutch Bhuj offer insights into local customs and legacies, fostering cultural understanding. These trips cultivate curiosity, cultural awareness, and interdisciplinary respect among students, broadening their horizons.

Hackathon

The Faculty of Engineering and Technology at GLS University hosts an Internal Hackathon where students participate with immense enthusiasm. The department offers its students a substantial platform to exhibit their skills by addressing SIH problem statements within a limited timeframe. The objective of this initiative was to cultivate creativity, teamwork, presentation, communication, and problem-solving abilities among the participants, gearing them up for future challenges like SIH. The university aimed to empower its students to discover their latent talents. Mentors remain alongside their students, provide guidance and assist them whenever needed. In recognition of their efforts, juries meticulously evaluate the projects with utmost objectivity.



HACKATHON



Brainstorm



Programming



Development



Teamwork



Timing



Goal

STUDENT TESTIMONIALS



KARMANT KHIMASIA



As a 4th-semester B.Tech (CS & E) student at GLS University's Faculty of Engineering & Technology (FET), I'm excited to share my positive experience. From day one, the faculty and staff welcomed me warmly, fostering a supportive environment. Despite being in the first batch of B.Tech, the dedicated professors ensured we received excellent guidance. Their passion for teaching and interactive approach enhanced my critical thinking skills. FET, GLSU offers diverse extracurricular activities like hackathons and techfests, providing opportunities for leadership and networking. I've been involved in various events, even anchoring an orientation. The inclusive atmosphere cultivates a sense of belonging and encourages students to excel. I'm confident that the education and experiences here will prepare me well for my future career.



JADEJA MAITRI



My time at GLS University as a 2nd-year Computer Science Engineering student has been transformative. Beyond academics, GLS emphasizes holistic development through extracurricular activities like the annual youth festival, fostering cultural appreciation and camaraderie. As a CSE student, CYBERSHADEZ, the technical event, particularly captivates me with coding competitions and hackathons. The nurturing environment and dedicated faculty act as mentors, guiding us towards continuous learning and self-improvement. GLS also offers ample industry exposure through workshops and guest lectures, preparing us for future careers. This enriching journey equips me with skills, knowledge, and confidence to thrive in today's dynamic world. Excited for the endless possibilities ahead at GLS.



SHREYAS AGRAWAL



I entered this new college life with my old innocence. GLS provides a comfortable academic-social balance through the activities organized by our most companionable faculties/seniors. The assigned projects connect the students with the external world, exposing their fellow students to the real world. Academically, all the experienced professors make the core of engineering easier. The journey of mine through GLS is tough, rewarding at the end, and fun indeed!



HAYA SACHIN



Joining GLS University's B.Tech program in Computer Science and Engineering was a significant decision, proving to be an exceptional experience. The engaging coursework strikes a balance between core subjects and comprehensive development, delving into programming concepts and data structures for a strong skillset. It emphasizes valuable subjects like value education and communication for holistic learning. Professors, passionate educators, simplify tough concepts and provide ample support. Hands-on labs offer practical application, invaluable for my future career. I eagerly anticipate forthcoming experiences in the program, confident in the foundation it is providing for success in computer science.

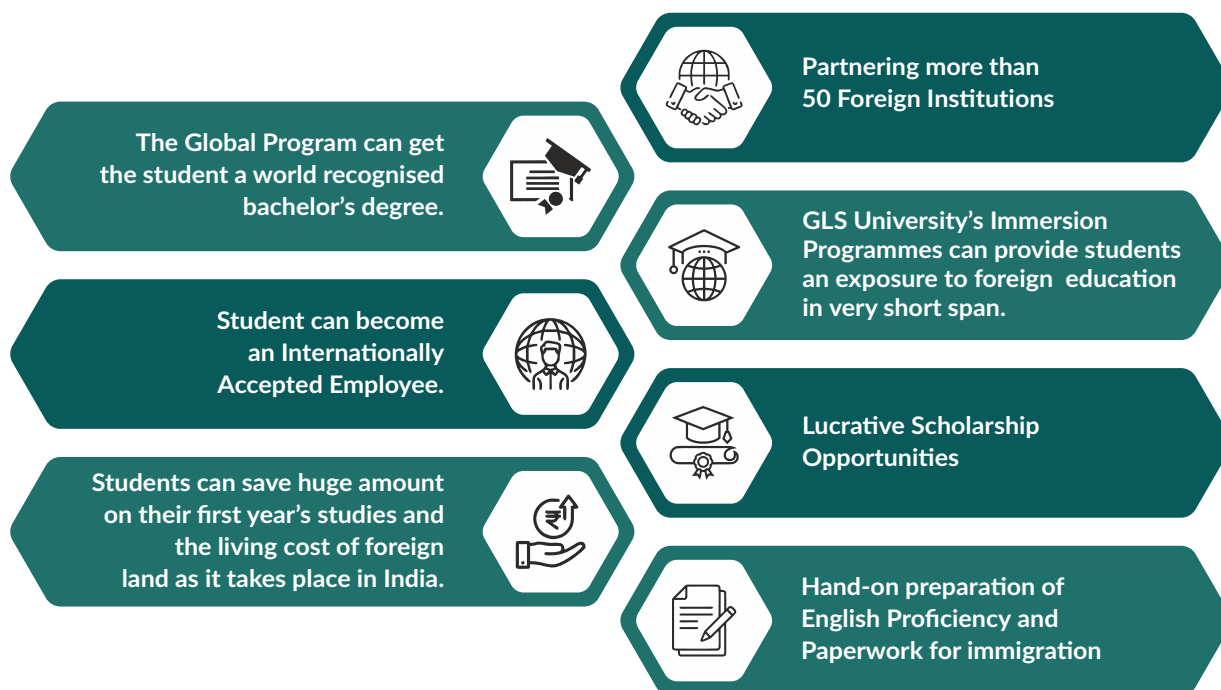


School of International Studies

GLOBAL PROGRAMMES

The Global Programme is a program designed to help students prepare for undergraduate or graduate studies at universities in the worldwide. The program is offered by several Foreign Universities and colleges and aim to provide students with the necessary skills and knowledge to succeed in their academic studies.

Upon successful completion of the Global Programme, students are typically guaranteed admission to the foreign university's undergraduate or graduate programs, provided they meet the academic and language requirements. This can be a great option for students who may not meet the university's admission requirements on their own, but who are otherwise qualified and motivated to succeed in their academic studies.



UNIVERSITY OF TECHNOLOGY SYDNEY



Year	Awarded Degree	Place to Study
1 st	Bachelor in Business/ International Business or Bachelor in IT/ Computer Science from UTS College, Sydney	GLS University, Ahmedabad, India
2 nd & 3 rd	LBU, UK GLS University	UTS, Sydney, Australia or LBU, UK or GLS University, India

INTERNATIONAL COLLABORATIONS



ACCOMMODATION AND EXTENDED FACILITY

At The Hive Hostels, in partnership with GLS University, we take immense pride in offering students an unparalleled standard of accommodation and extended facilities. Our collaborative effort aims to provide students with a holistic living experience that not only meets but exceeds their expectations.



Nestled at the intersection of comfort and convenience, The Hive Hostels is more than just a place to stay – it's a thriving community where students can thrive academically and socially. Our partnership with GLS University underscores our shared commitment to fostering an environment where students feel supported and inspired

From meticulously prepared meals to attentive housekeeping services, every aspect of our accommodations is designed to enhance the student living experience. With spacious rooms, modern amenities, and a range of services tailored to meet the diverse needs of our residents, The Hive Hostels is where students can truly feel at home while pursuing their academic aspirations.



Four Freshly Cooked Meals



Professional Housekeeping



College Pickup and Drop



Community Events



Spacious Rooms



Laundry Service



Bicycle on Demand



24*7 Tea Coffee Machine



CCTV Surveillance



WiFi



Dedicated support Staff



Doctor on call

Contact us today to learn more about our accommodation options and how we can enhance the student living experience at GLS University.

Contact us :

1800-572-0709 (Toll free)

9414830190 / 9662401424 / 9998365202

*GLS University has collaborated with The Hive Hostels for hostel facilities where hostel is not managed and owned by GLS University

STUDENT ACHIEVEMENTS



Bhavya Thakkar - 1st Runner Up in Esports Tournament



Bhumika Tiwari - 1st Prize in Python Charmer



Kairavi Shah - 2nd Runner Up in Elocution Competition



Khush Patadia, Harivadan Thakker, Krish Parmar, & Jay Malaviya - 1st Prize in Idea Presentation - IoT Models



Krishna Lalwani & Kavish Bhavsar
1st Prize in Squash the Bug



Zalak Gondaliya - First Place in Volleyball Tournament



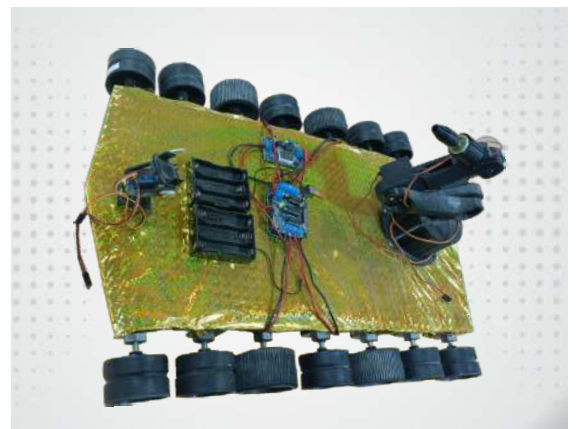
Dhruvit Suthar and Priyanshu Maniar
1st Prize in Code Jigsaw



Kartik Rajput - 2nd Runner Up in 400m Race (Boys)

STUDENT ACHIEVEMENTS

Ms Chittal Dave, Mr Karmant Khimasia, Mr Dev Shah, and Mr. Yatharth Bhavsar, students of BTech Semester-4 participated in the 3D Model Design Mission Chandra organized by SAC ISRO. Out of a total of 69 models submitted, 11 were selected. Happy to Announce that the 3D Model of Rover designed by GLSU-FET students was also one that got selected. The team won a cash prize of Rs. 5000 and qualified for the final round. A working prototype of the model was developed and presented by the students.



RED HAT ACADEMY

GLS University is excited to present an extraordinary partnership with Red Hat Academy. Red Hat Academy partners with academic institutions around the world to provide the next generation of IT talent with free access to a range of Red Hat's training courses and certification exams. By joining GLSU, you gain access to plethora of cost-effective courses.



Red Hat
Academy

Red Hat Academy certification offerings

01 Core system administration

- Red Hat System Administration I (Rh124)
- Red Hat System Administration II (Rh134)
- Red Hat System Administration III: Data Center Services for Red Hat Enterprise Linux 7 (Rh254)
- Red Hat Enterprise Linux Automation with Ansible® (Rh294)

02 Application development

- Red Hat Application Development I: Programming in Java™ EE (Ad183)
- Python Programming with Red Hat (Ad141)

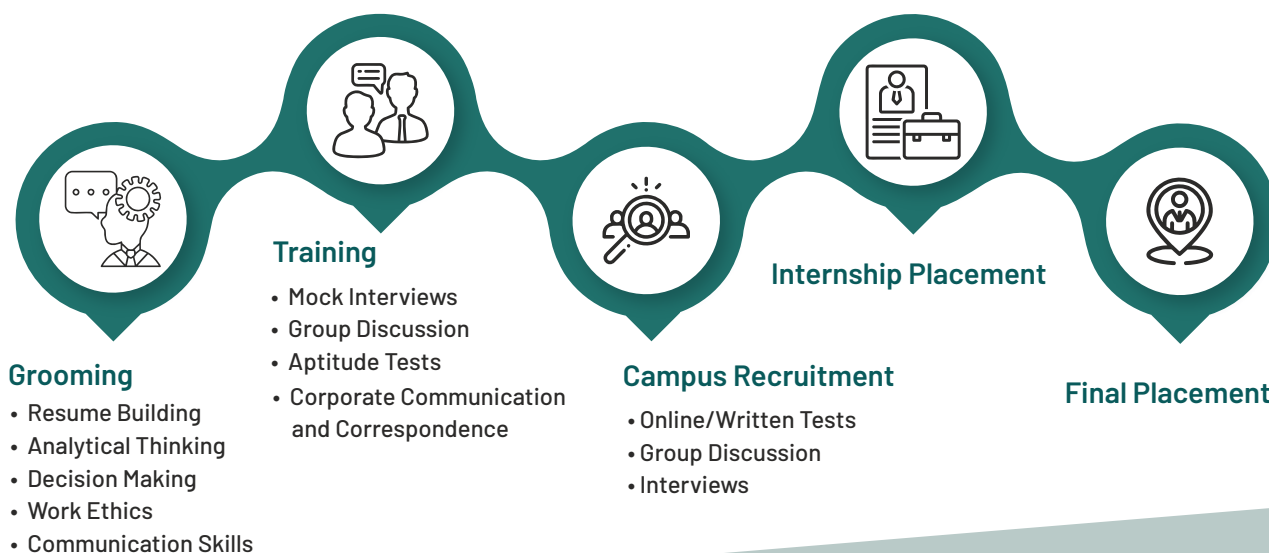
03 Cloud computing

- Red Hat OpenStack Administration I: Core Operations for Domain Operators (Cl110)
- Red Hat OpenShift I: Containers & Kubernetes (Do180)
- Introduction to OpenShift Applications (Do101)
- Red Hat Enterprise Linux Automation with Ansible® (Rh294)



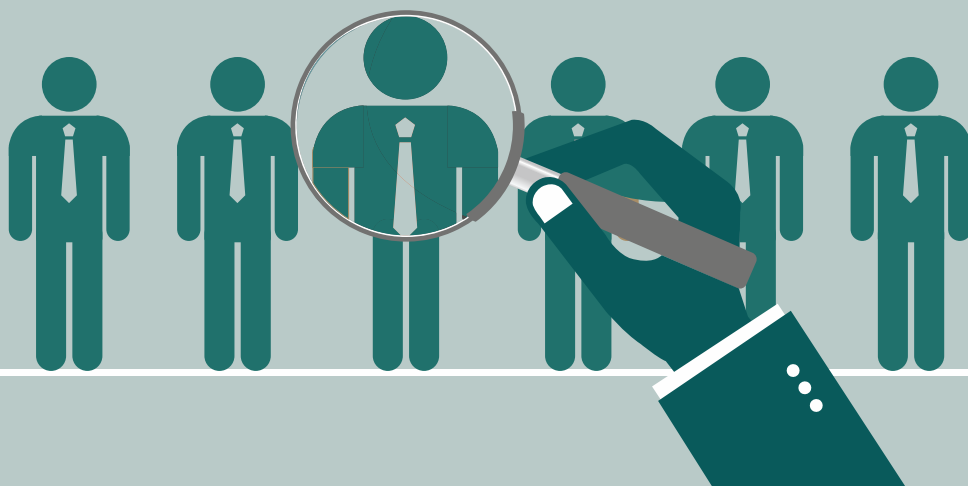
PLACEMENTS @ IT COURSES

The placement department comprises a collaborative team of faculty and students dedicated to overseeing the entire process, from inviting companies to coordinating campus drives and conducting final interviews. The placement initiatives for postgraduate students commence with bridge sessions, providing an initial boost for preparing various subjects pertinent to forthcoming placements. Additionally, the placement cell offers training to students in various essential areas.



Some of the companies that have visited the campus for placements are:

- 4C Consulting Pvt. Ltd.
- Acty System India. Pvt. Ltd.
- Akshar Softweb Pvt. Ltd.
- Argusoft India Ltd.
- BinTech Services
- BizzAppDev Systems Pvt. Ltd.
- BuildBear Labs
- Cybercom Creation Inc.
- Elision Technologies Pvt. Ltd.
- Elluminati Inc.
- Elsner Technologies Pvt. Ltd.
- Engage
- eSparkBiz Technologies Pvt. Ltd.
- Hyperlink InfoSystem
- Infosense Global
- iView Labs Pvt. Ltd.
- Karet Consultancy
- Knovos India Pvt. Ltd.
- KrishiMandir
- Learniphi Technology Pvt. Ltd.
- Medkart Pharmacy Pvt. Ltd.
- NeoGen InfoTech
- NSIQ INFOTECH Pvt. Ltd.
- Polyxer Systems Pvt. Ltd.
- Sarjen Systems Pvt. Ltd.
- Satva Solutions
- Squad Technologies Pvt. Ltd.
- Stackss Services
- Streebo Inc.
- Surekha Technologies
- Synoptek India Pvt. Ltd.
- TatvaSoft
- Tech Holding
- Techuz InfoWeb Pvt. Ltd.
- TST Technology
- WebCodeGenie Technology Pvt. Ltd.
- WebOccult Technologies



ELIGIBILITY CRITERIA

- Passed 10+2 examination from a recognized board with Physics and Mathematics as compulsory subjects along with one of the Chemistry / Computer Science / Electronics / Information Technology / Biology / Informatics Practices / Biotechnology / Technical Vocational subject / Agriculture / Engineering Graphics / Business Studies / Entrepreneurship. (Any one of the subjects as per GoG*)
- Obtained at least 45% marks (40% marks in case of candidates belonging to reserved category) in the above subjects taken together.

OR

- Passed min. 3 years Diploma examination with at least 45% marks (40% marks in case of candidates belonging to reserved category) subject to vacancies in the First Year, in case the vacancies at lateral entry are exhausted.
- Student should have appeared in GUJCET/JEE.

ADMISSION PROCEDURE

- As decided by ADMISSION COMMITTEE FOR PROFESSIONAL COURSES [ACPC] GUJARAT STATE.
- Provision of 50% Management Quota seats as per the rules & regulations.
- The allocation for the seats of reserved categories will be as per the rules of the GLS University and State Government of Gujarat prevailing at the time of admissions.
- For more details please visit: <https://gujacpc.admissions.nic.in/>



For Further Information Contact



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