

TWO YEARS POST GRADUATE



FACULTY OF COMPUTER APPLICATIONS AND INFORMATION 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

# MSc (IT) Programme

The MSc (Information Technology) is a full-time, two-year program designed for individuals aspiring to pursue a professional career within the IT industry. This curriculum introduces students to contemporary theories and techniques essential for designing, developing, and overseeing IT systems, processes, and technologies. Through this program, you'll acquire the skills needed to apply IT knowledge effectively in the creation and management of software and web systems.

Moreover, this course offers specialization in one of five distinct tracks tailored to align with the diverse needs of the IT sector. Upon completion, graduates are expected to secure employment in roles such as computer programmers, web developers, data analysts, and similar positions.



## **CAREER PROSPECTS**

"Programming is the art of algorithm design and the craft of debugging errant code" -Ellen Ullman

## COURSE OUTLINE

At FCAIT we believe in holistic development and thus focus on concepts, practical implementation, self-learning and industry experience.

#### Semester-1

- NoSQL Databases
- Design and Analysis of Algorithms
- Cloud Computing and Virtualization
- Object Oriented Analysis and Design
- Practical 1: NoSQL Labs
- Practical 2: Object Oriented Programming with Python
- Capstone Project I

#### Semester-2

- Artificial Intelligence and Machine Learning
- Computer Communication and Networking
- Cyber Security
- Web Services
- Practical 1: Machine Learning with Python
- Practical 2: App Programming using Flutter
- Practical 3: Web Programming with PHP Framework
- Capstone Project II

#### Semester-3

The student will be offered 2 core subjects + 1 Entrepreneurship and Soft Skill subject and 4 subjects based on the elective track

#### **Compulsory Subjects:**

- Software Engineering
- Distributed Ledger Technology Blockchain
- Entrepreneurship and Soft Skills
- Elective Track

#### Semester-4

Industry Internship

## Semester - III Elective Track Subjects

#### Web Programming

- Semantic Web
- Principles of Web Designing
- Practical 1: Web Programming using Ruby on Rails
- Practical 2: Web Programming using Java

#### **Mobile Computing**

- Mobile Communication & Networking
- Mobile Computing Fundamentals
- Practical 1: App Programming using Android
- Practical 2: App Programming using iOS

#### **Network and Cyber Security**

- Intrusion Detection and Ethical Hacking
- Cryptography and Network Security
- Practical 1: Working with Network Analysis Tools
- Practical 2: Vulnerability Testing

#### **Data Analytics**

- Statistics for Data Science
- Analytical Database Models and Design
- Practical 1: Big Data Analytics using Hadoop
- Practical 2: Data Analytics and Visualization

#### **Internet of Things**

- Embedded Systems
- Wireless Sensor Network and IoT Fundamentals
- Practical 1: Programming using Raspberry pi & Arduino
- Practical 2: Programming Using Python

## UNIQUE FEATURES



Two years Masters programme designed to offer domain specialization.



Industry association with 100+ reputed IT companies.



International Immersion programme that provides global experience to students.



Programme designed using Open Source Technologies as a delivery platform.



Five specialization tracks Data Analytics, Network and Cyber Security, Internet of Things, Mobile Computing and Web Programming to choose from.



Student centric learning pedagogy systems.



A Capstone Project spread across two semesters for real life application learning.



Full time Industry Internship of 4 months in current area of Computer Applications.



A University with high success rate and excellent student support.



Expert Faculty team comprising of experienced academicians, experienced IT Managers and Consultants.

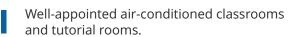
## **Capstone Project**

During Semester 1 and 2, MSc (IT) students are assigned a self-learning capstone project focusing on innovative topics reflecting recent advancements in Computer Science. Students are tasked with researching their chosen topic and presenting their findings through a report and presentation. Some examples of topics assigned to students include:



## CAMPUS RESOURCES

# GLS SOUVENIR SHOP



Library stocked with over 11,000 books on Computer Science.

Collection of 50 journals, including open-access publications in Computer Science & Engineering and related fields.

Access to 150+ computers equipped with Ubuntu 22.04 LTS, and 60 computers running MAC OS.

Experimental Laboratory available for hands-on, unscheduled experiments.

- Multiple dedicated high-speed Internet connections, each offering 100.0 Mbps.
- Campus-wide WiFi coverage provided through cutting-edge HP Aruba technology.

Secure network infrastructure featuring Ubuntu 22.04 LTS servers with essential software and firewall protection.

- State-of-the-art gymnasium and auditorium facilities.
- Residential accommodations with fully furnished AC/Non-AC rooms available for both male and female students.



# HACKATHON

A hackathon serves as a platform for young students to apply their technical skills in addressing real-world challenges proposed by various industry experts. These challenges encompass a range of issues, such as NFT-based solutions for museums, detecting fake profiles on social media, speech and language recognition, creating automated attendance systems for anganwadi centers, and designing wearable devices for women's safety, among others, suggested by stakeholders throughout the state. Participants in the hackathon dedicate 36 consecutive hours to devising solutions to these challenges through the development of applications, websites, or prototypes. This event also offers students the opportunity to engage directly with industry experts.



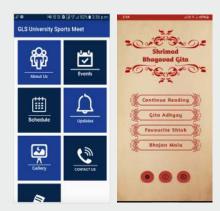






# **APP DEVELOPMENT**

When pursuing an MSc (IT) degree at GLS University, you not only learn how to design and develop applications but also how to publish them on the Play Store. Throughout the program, students acquire in-depth knowledge of various mobile technologies. Collaborating with faculty, students have developed numerous applications using both Android and iOS technologies, which are currently active and in use. Examples include the Official MSc (IT) App, Expense Tracker App, Smart Calculator App, She Secure App, Sarathi App, Cyber Shadez App, GLSU Youth Festival App, GLSU Annual Sports Meet App, English Gueta App, among others, all accessible on the Android store. Additionally, the iOS version of the Official MSc (IT) App is also accessible on the Apple Store.



# **RED HAT ACADEMY**

### Bridging the gap between education and industry



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 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 JavaTM EE (Ad183)
- Python Programming with Red Hat (Ad141)

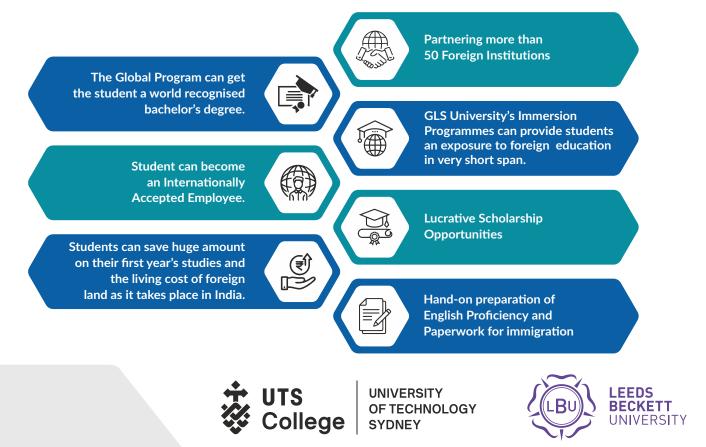
#### 03 Cloud computing

- Red Hat OpenStack Administration I: Core Operations for Domain Operators (Cl110)
- Red Hat OpenShift I: Containers & Kubernetes (Do180)
- Introduction to OpenShift Applicationas (Do101)
- Red Hat EnRed Hat OpenShift Development I: Introduction to Containers with Podman (Do188) terprise Linux Automation with Ansible® (Rh294)

## **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.



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

## **INTERNATIONAL COLLABORATIONS**



"The free sharing and teaching of open source is incompatible with the notion of the solitary genius" - Golan Levin

## 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.





**CCTV** Surveillance



WiFi



**Dedicated support Staff** 



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

## CAMPUS LIFE

FCAIT fosters a nurturing environment for its students during their time on campus. Participants in the MSc (IT) program engage in a variety of activities such as sports meets, youth festivals, technical events, garba celebrations, industry visits, picnics, and more. These activities serve to rejuvenate them and offer opportunities for interaction with their peers.

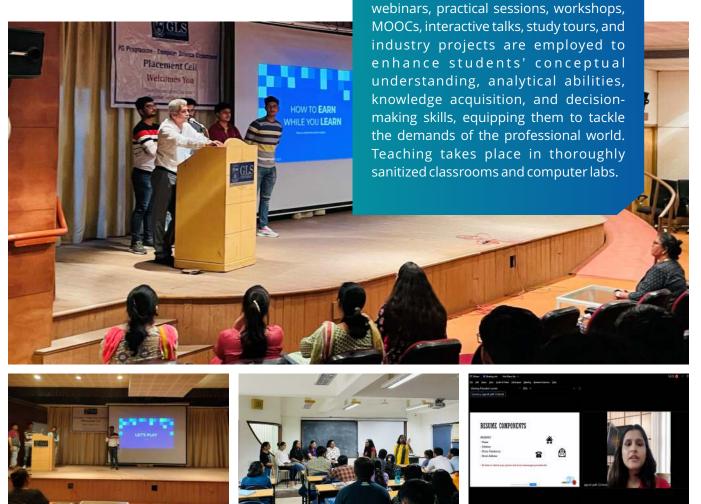


## **TECH FEST : CYBER SHADEZ 2024**

The institute hosted the National Techfest - CyberShadez 2024 with the theme of 'Computational Intelligence'. The event attracted over 1100 participants from 90+ institutions and 19 states across India."







Methods such as lectures, presentations,

## **FOSTERING ENTREPRENEURSHIP**

At FCAIT, we recognize the growing demand for entrepreneurs in contemporary society, prompting the institute to foster an entrepreneurial mindset among young IT graduates. We consistently endeavor to educate students about opportunities for self-employment.

In last seven years, the institute has been successful in mentoring a number of students to become entrepreneurs.

Mr. Kartik Joshi alumnus of first batch of MSc (IT) programme spearheads Techsamvaad Pvt. Ltd. a startup recognized under DIPP and funded by Government of Gujarat.

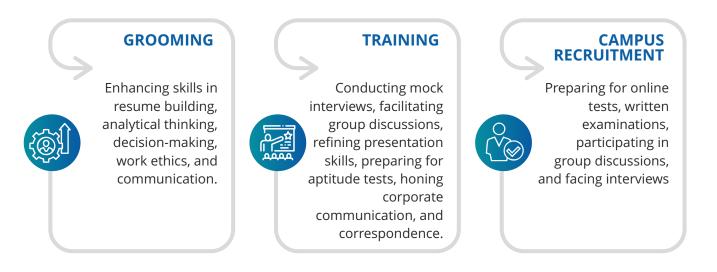
Mr. Kanish Patel, Mr. Sahil Acchva, Mr. Harsh Gandhi and Mr. Satish Devnani are some of our successful entrepreneurs.

## PLACEMENTS @ FCAIT

Placements hold significant importance for students enrolled in the MSc (IT) program as they mark a pivotal stage in their academic journey. Through the placement process, organizations have the opportunity to visit the institute and observe the dedication put into nurturing aspiring computer science professionals.

At our institute, the placement process is a collaborative endeavour. The Placement Committee, composed of the Head, the Placement Coordinator, and faculty members, actively engages with students at every stage, starting from conceptualizing and designing recruitment brochures to extending invitations to companies for campus recruitment.

The Placement Cell at FCAIT provides training to students in the following domains:



Placements exceeding 90% over the years 40+ IT Companies visited campus last year

## A GLIMPSE OF OUR RECRUITERS

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

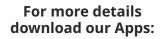
- 4C Consulting Pvt. Ltd.
- Acty System India. Pvt. Ltd.
- Akshar Softweb Pvt. Ltd.
- Argusoft India Ltd.
- BinTech Services
- BizzAppDev Systems Pvt. Ltd.
- BuildBear Labs
- Cybercom Creation Inc.
- Elision Technologies Pvt. Ltd.
- Elluminati Inc.
- Elsner Technologies Pvt. Ltd.
- Emgage
- eSparkBiz 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

# **ADMISSION PROCESS**

- Admissions will be given based on score obtained in graduation and personal interview.
- Candidates who have appeared in the final year examination can also apply.
- GLS University reserves the right to make any exception in the above rules without any notice. However, in case of any doubt regarding interpretation of any clause, the decision of the University authorities shall be final.
- Allocation for SC, ST, SEBC etc. categories will be as per the rules of the University and State Government of Gujarat prevailing at the time of admissions.







# ELIGIBILITY

The candidate should have passed any of the qualifying examination as mentioned during the current year.

- Bachelor's Degree in Computer Science | Computer Applications | Information Technology or Equivalent
- Bachelor's Degree in Engineering or Technology
- Bachelor's Degree in Science (Maths | Statistics | Physics | Chemistry | Electronics )
- Any Bachelor's Degree + Post Graduate Diploma in Computer Applications from UGC recognized University.



# Faculty of Computer Applications and Information Technology

#### MSc (IT) Programme

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