

## Faculty of Computer Applications and Information Technology

TWO YEARS POST GRADUATE  
MSc (IT) PROGRAMME

# GLS University

GLS University is a statutory state private university established by the act of Gujarat State Assembly. GLS University is set up with the vision to benchmark global standards of education and create path breaking programmes in the area of strategic importance not only to the country but also across the world.

The university has initiated various innovative programmes in diverse areas of Management, Information Technology, Design, Communications, Social Sciences, Commerce etc. It already offers programmes like MCA, MBA, MSc (IT), iMSc (IT), BCA, BBA, iMBA, BCom, MCom, B. Design, M. Design, PGDCA, LLM and PhD. With a view to providing an impetus to research, the University intends to have research focus in its under graduate and postgraduate programmes.

GLS University, with its rich legacy of Gujarat Law Society that has been in the field education for over a period of nine decades is now poised to become Gujarat's first globally relevant university, delivering quality education at affordable costs.

## MSc (IT) Programme

The M. Sc. (Information Technology) is a full time, two year course, intended for students who are seeking a professional career in the IT industry.

This course introduces you to the modern theories and skills used to design, develop and manage IT systems, processes and technologies. You learn how to apply your IT knowledge and skills to the development and management of software and web systems.

The course has been specifically designed so as to offer specialization in five different tracks a student can choose from to suit the requirements of the IT industry. The graduates are intended to get employment in many roles, including computer programmers, technical authors and research associates.

# FROM THE PRESIDENT'S DESK

Dear Prospective Student,  
Greetings from GLS University!

At GLS University, we believe that it is not a crisis, but our response to it that defines us.

The COVID-19 global pandemic represents the most serious public health challenge that our country and the world have faced in a century. At the outset, I would like to take this opportunity to thank all the doctors, nurses, technicians, pharmacists, sanitation workers, emergency services workers, teachers, and everyone who is rising to the occasion and caring for our society at large. Your dedication, commitment, and courage deserve our deepest gratitude and admiration. Your service to our society is touching countless lives and making thousands of differences.

GLS University has been working tirelessly not only to help mitigate the effects of this crisis on the university community but also to alleviate the suffering of the most vulnerable members of society.

Our constant concern from the beginning of the crisis has been the health, welfare, and safety of the entire GLS University community. Apart from taking the precautionary steps to curb the spread of the virus, we have successfully completed our vaccination drive and more than 500 staff members of GLS University have been duly vaccinated. As even the darkest night ends with the crack of dawn, we are hopeful that the measures taken will lead us through these difficult times and take us forward to a better future.

To this end, we have also taken a number of significant operational decisions. Whilst we all are adapting to new norms of maintaining social distancing; GLS University is investing heavily into world-class ONLINE platforms and Learning Technologies that will ensure that the education delivery continues uninterrupted. This initiative would put our university at par with the leading global universities that have adopted high-tech educational innovations enabling us in doing all academic tasks ONLINE such as:

- 1) Conduct and Record Online Virtual Video Lectures
- 2) Arranging Online Exams, Presentations, Quizzes and Assignments
- 3) Enabling Online Group or Collaborative work
- 4) Online Query resolution
- 5) Online Grading, Feedback, and Announcement of Results

GLS University and on behalf of my staff members, we ensure a smooth educational journey during your programme tenure at GLS University.



As one of the most respected and long-standing institutions in Gujarat, GLS University has taken its responsibility very seriously. From contributing to the CM's Relief Fund, a comprehensive student benefit scheme/ scholarship for all deserving and needy students to reduce their financial hardship, special scholarship for COVID-19 affected students, GLS University is doing its bit in line with our motto of "Learn, Love, Serve".

While there is still a lot of uncertainty about the coming months, our plans for the next academic year are based on two principles that remain completely certain:

- 1) First and foremost, to protect the health of our students to the best extent possible
- 2) To provide all of our students with an excellent academic experience

I want to provide a strong assurance that we shall be doing everything possible to safeguard the health of our community through the fulfillment of all norms & safeguards at our campus and to maintain our high standards of excellence in teaching and learning.

No matter what, we are committed to educating all of our students in the upcoming new academic year, in VIRTUAL classrooms, and beyond the classroom. We are committed to a safe and enriching educational experience. We are committed to you.

**Sudhir Nanavati**  
President  
GLS University

# SYLLABUS STRUCTURE

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

## Semester – I

- 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 – II

- 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 – III

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 – IV

- Industry Internship

## Semester -III Elective Track Subjects

### Web Programming

- SemanticWeb
- 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 Ruby on Rails
- 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.

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

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.

Student centric learning pedagogy systems.

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

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.

## CAPSTONE PROJECT

In Semester 1 and 2, the students of MSc (IT) are given a self-learning capstone project on innovative topics of recent advances in Computer Science. The students have to research the topic and prepare a report and presentation. Few of the topics assigned to the students are:

■ Solution for Book Sellers (Online Book selling Platform)

■ Smart Shopping Cart (Direct Billing App)

■ MedTrade (Online Medicine Distribution System)

■ Smart Society (Society Management System)

■ Smart Billing (Smart Water Metering System)

■ Recycle and Park (Plastic Waste Collection and Recycle System)

■ CoupON (Coupon Distribution for Retail Business)

■ Grafico (A platform for Graphics Designer)

■ Wagging Tails (Temporary Accommodation Facility for Pets)

■ GiftLia (Customized Gift Selling System)

■ E-Grocery Mart (Online Grocery Store)

■ GreenThrive (Online Nursery For selling of Plants & Fertilizers)

*"In true open source development, there's lots of visibility all the way through the development process" - Brian Behlendorf*



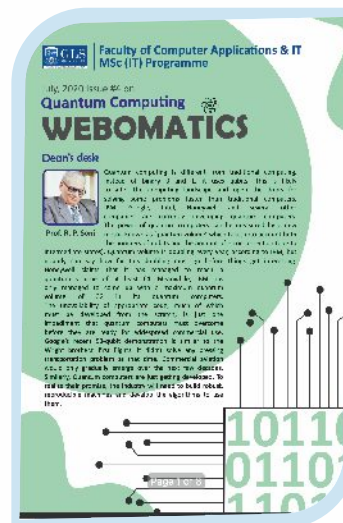
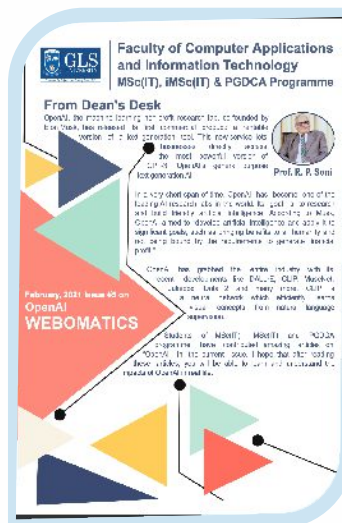
# HACKATHON

Students of FCAIT MSc(IT) programme participate in State level programming competition, Hackathon. Gujarat Hackathon is an annual flagship programme where young students can leverage their technical skills to solve real life challenges posed by various stake holders. Society Management Application, Voice based Form Filling System, Virtual Room for Apparel Trail, Resume Ranking Policy and Human Emotion Detection are some of the real-life issues suggested by the stake holders across the state. Students participating in the hackathon work back-to-back for 24 hours to identify the solution to such issues through the development of applications/website/prototype. Students get an opportunity to interact with the experts from the industry. Every year around five to six teams participate in this event.



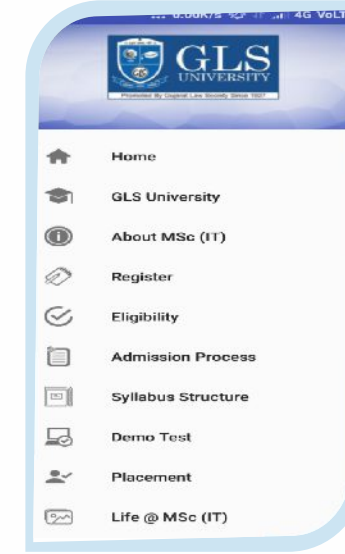
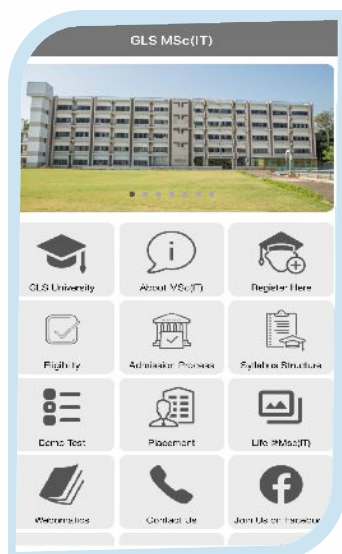
# WEBOMATICS

Webomatics is an in-house technical magazine designed and published by the students of MSc(IT) Programme. It is a platform which highlights the literary skills, creativity and achievements of the students. Apart from article writing, students even participate in creation of technical riddles, crossword and quotes for the magazine. The department has successfully published five issues of Webomatics on themes like OpenAI, Quantum Computing, DevOps, Deep Learning and Robotic Process Automation till date.



# APP DEVELOPMENT

When you are at MSc(IT) you not only learn to develop an application but also how make it live on the store. Our students get an indepth knowledge of various mobile technologies during the course of study. Students in co-ordination with the faculty have created several applications in Android and iOS technologies which are live and very much in use. Official MSc(IT) App, Cyber Shadez App, QR Code Generator and Scanner App, GLSU Youth Festival App, Tech Scoop App, GLSU Annual Sports Meet, English Gueta App are available on Android store. iOS version of our official MSc(IT) App is also available on Apple Store.

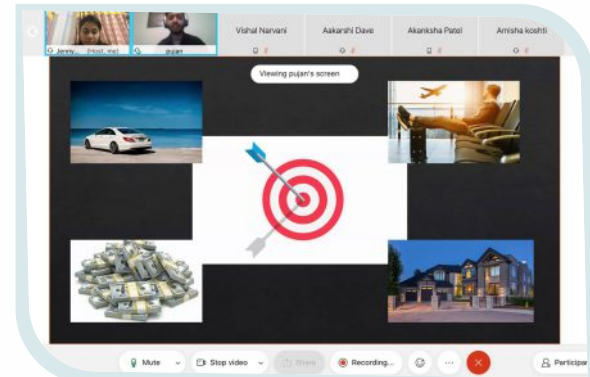
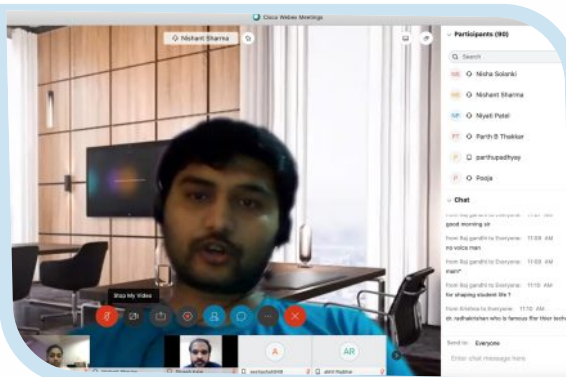
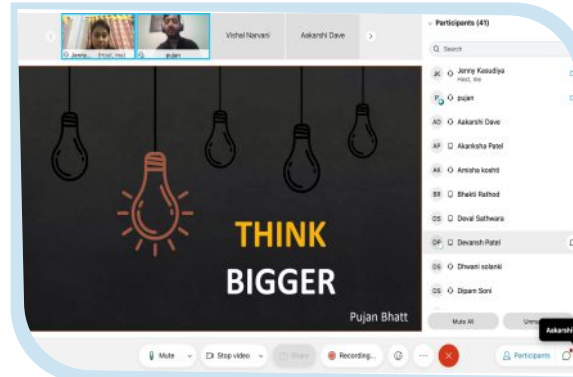


*"Programming is the art of algorithm design and the craft of debugging errant code" -Ellen Ullman*



# PEDAGOGY

Pedagogy like Lecture, Presentation, Webinars, Practical, Workshop, MOOC, i-Talk, Study Tour and Industry project are used to develop conceptual, analytical, knowledge gathering and decision making skills of the students and to prepare them to face the challenges of the organizational environment. Due to the COVID19 pandemic, all the academic activities are conducted in the hybrid mode. Teaching activities are done in offline mode following the strict social distancing norms and in a well sanitized classrooms and labs.





# UNINTERRUPTED EDUCATION

The COVID-19 pandemic which struck the entire world gave rise to various innovative ways of teaching. The new methodologies of learning were adopted to give an extra edge to bring closer the geographically spread students. Faculties made efforts to keep the students in touch with the subject and give them a classroom like environment virtually. The institute also conducts lab sessions through the use of open source software, Anydesk wherein each student is allocated a dedicated machine for practice. Webinars, coding competitions, expert sessions, farewell as well as orientation programme for welcoming the new students have been organized through the online medium to keep the students in touch with the various institutional activities.

**IN HOUSE PROJECT**

Optical Character Recognition

Image Path:  Output Format:

Language:

Click to select other languages

Contact Us: Pujan\_Shett@yahoo.com

**Understanding Behavior Patterns**

3 Basic Types

AGGRESSIVE

ASSERTIVE

NON ASSERTIVE

**VIDHI TRIVEDI**

Senior Quality Assurance Engineer

**CAREER HISTORY**

**SENIOR QUALITY ASSURANCE**

Cignex Datamatics Technologies Ltd 2012 - Till Present ,Ahmedabad

- Successful Execution of the project , Quality deliverable with 0 defect
- Adhering to all the processes of the CMMI level 3 for testing
- End to End Testing Lifecycle Implementation
- Providing Estimates
- Leading and executing end to end projects
- Testing Methodologies Agile as well as Waterfall
- Analysing the Requirements and suggesting for improvements and enhancements
- Performing Internal Audits for Testing Related Activities for different projects

**PERSONAL PROFILE**

A professional and self-motivated Tester with 9+years of experience in implementing effective testing processes and testing strategies along with using the project coordinator and business analyst skills and aiming at delivering successful quality projects

**ACADEMIC HISTORY**

**MASTERS IN COMPUTER APPLICATIONS (MCA) , JUN**

WICM , GUJARAT UNIVERSITY

- Secured 70%

**BACHELORS IN COMMERCE (BCOM) , MAY 2007**

SMPATEL Institute of Commerce, Ahmedabad

- Secured 69.67%

**SKILLS**

**During Personal Interview**

- \* Mannerism
- \* Physical Setup
- \* Presence of Mind
- \* Satisfying Ego
- \* Facial / Verbal Expressions
- \* How do you ask your questions

**RESUME VS CURRICULUM VITAE**

**Resume**

- Short and brief
- Highlighted summary of academics and professional career
- Selected content related to a specific job
- 1 or 2 pages for entry level candidates
- 2-3 pages for experienced

**CV**

- Detailed and comprehensive
- Detailed summary of academics and professional career
- Complete content of a person's career
- Minimum 2 pages

**CAREER HISTORY**

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**SKILLS**

*“Any fool can write code that a computer can understand. Good programmers write code that humans can understand.” — Martin Fowler*

# CAMPUS RESOURCES

- Full furnished AC classrooms and tutorial rooms.
- Library with more than 11000 Computer Science books.
- Subscription to 50 journals and E-resources such as EBSCO and open access journals.
- Access to 150+ computers with Ubuntu 18.04 LTS and 60 computers with MAC OS.
- Experimental Laboratory for hands-on unscheduled experiments.
- Secured network having Ubuntu 18.04 LTS servers with necessary software and firewall.
- Dedicated multiple high speed Internet connection of 100.0 Mbps.
- Campus wide WiFi facility provided through state of art HP Aruba solution.
- World class gymnasium and auditorium.
- Covid'19 proof residences with fully furnished AC/Non-AC rooms (for boys/girls) at Stanza Living.



Classroom



Computer Lab



Amphi Theatre



Hostel Facility



Library



Auditorium



Canteen



Gym

# FOSTERING ENTREPRENEURSHIP

At FCAIT we have realized the emerging need for entrepreneurs in today's world, and therefore the institute strives towards implanting a seed of entrepreneurship in the minds of young IT graduates. Continuous efforts are made to make the students aware of avenues in self-employment.

## Some Highlights

- Within five years, GLS MSc(IT) programme has been successful in mentoring more than five 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 and Mr. Satish Devnani are some of the successful entrepreneurs.



**Mr. Kartik Joshi**  
TechSamvaad Pvt Ltd



**Mr. Satish Devnani**  
Funky Developers



**Mr. Sahil Acchava**  
Phase Infotech



**Mr. Kanish Patel**  
Innovartz IT Services Pvt. Ltd



# INTERNATIONAL COLLABORATIONS

GLS University aims to develop globally aware graduates with competitive skills well-matched to the international jobs and assignments of today and future. The prime focus to bring internationalization is by fostering globally connected research and scholastic interactions.

At present, the University has entered into foreign collaborations with leading academic institutions from across the globe. Every year the students visit California Baptist University, USA or Georgian College, Canada under international immersion programme. They receive 6 credits for completing this program.





# CAMPUS LIFE

FCAIT provides a healthy environment to its student during their stay in campus. Students of MSc (IT) programme take part in various activities like Sports Meet, Youth Festival, Garba Celebration, Hackathon, Industry Visit, Picnic, etc. These activities keep them rejuvenated and provide opportunities to interact with their counterparts.



# PLACEMENT @ FCAIT

For students of the M.Sc. (IT) programme, placements are a vital culmination to their academic pursuits. The placement process allows an organization to visit the institute and witness the efforts that have gone into grooming the young computer science aspirants.

At our institute, the placement process is a team effort. The Placement Committee consisting of the Director, the Placement Coordinator and the faculty member work alongside the students in all the stages right from conceptualizing and designing the brochure to invite companies for the campus recruitment.

## FCAIT Placement cell trains the students in the following areas:

### Grooming

: Resume Building, Analytical Thinking, Decision Making, Work Ethics, and Communication Skills.

### Training

: Mock Interviews, Group Discussion, Presentation Skill, Aptitude Tests, Corporate Communication and Correspondence.

### Campus Recruitment

: Online Test, Written Test, Group Discussion, Interviews.

## A glimpse of our recruiters

- Gateway Corp
- Xmplify
- Streebo Solutions Pvt Ltd.
- Yudiz Solutions Pvt. Ltd
- Cybercom Creation
- Third Rock Techno
- Tatavsoft
- Infosense Global
- Hidden Brains InfoTech Pvt. Ltd.
- Surekha Technologies
- I-Link Infosoft Pvt. Ltd.
- Knovos
- Sarjen Systems Pvt. Ltd.
- Radixweb
- Hyperlink Infosystem
- 4C InfoEngg
- WebOccult
- BizzAppDev
- Creole Studios
- Biztech
- The One Technologies
- Innvonix Tech Solutions
- Learniphi Technology Pvt. Ltd.
- SQUAD Technologies Pvt. Ltd.

More than

# 90%

**Placements  
over the years**

# 75+

**Organizations  
visited campus  
last year**

# ADMISSION PROCESS

- Admissions will be given based on score obtained in graduation, online test 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 will 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.

For more details download our Apps :



# 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
- Engineering or Technology
- Science

- **Post Graduate Diploma in Computer Applications.**



**Faculty of Computer Applications  
and Information Technology  
MSc (IT) Programme**

**GLS University**

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**Web** : [www.glsmscit.org](http://www.glsmscit.org), [www.glsuniversity.ac.in/msc-it.html](http://www.glsuniversity.ac.in/msc-it.html)

“

*Open Source is a  
Development Methodology;  
Free Software  
is a Social Movement.*

”

*- Richard Stallman*