

# Department of Computer Science

Gujarat University, Navrangpura, Ahmedabad - 380 009.

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**New Extension Building "ARYABHATT" of Department of Computer Science**

## **Brief History:**

The Department of Computer Science of Gujarat University is housed at Rollwala Computer Centre. The Rollwala Computer Centre was founded in 1973. This Centre was the first to begin the Computerization of a University in Gujarat. A major research CIDA-UGC spanning over three years was completed in joint collaboration with University of Regina, Canada, Gujarat University along with some other participating Universities. Department of Computer Science, Gujarat University campus has the reputation of being the best Computer Science Department in the state. Getting education in department is considered to be a matter of pride, because of the quality of education imparted and standards maintained. The various functions and the responsibilities in the Department are coordinated as a team with excellent understanding and commitment. Over a period, it has built a versatile system to train IT professional and entrepreneurs who have succeeded in today's exceedingly competitive and rapidly changing environment.

The Department also takes the responsibility to the fullest of training the educators. It has organized in recent past UGC short courses and international workshops imparting theoretical and practical training to various colleges and universities teachers at state level and national level. The Department provides the following courses:

- Doctor of Philosophy ([Ph.D.](#)) since 1982
- Post Graduate Diploma in Computer Science and Applications ([PGDCSA](#)) since 1982
- Master of Computer Applications ([MCA](#)) since 1988
- Master of Technology with specialization in Web technologies ([M. Tech. \(WT\)](#)) since 2010
- Master of Technology with specialization in Networking and Communications ([M. Tech. \(NT\)](#)) since 2010
- Post Graduate Diploma in Network Administration ([PGDNA](#)) since 2010

## **The Culture:**

The Culture is in harmony to principal ideologies of Gujarat University to educate, encourage, promote and develop individuals for a technology of future. The department only imparts education but also inculcates in its students a culture characterized by integrity, mutual respect, enthusiasm, and hard work. The students co-operate and compete to acquire a thorough knowledge of today's computer technology and to carve a niche in the IT industry. The family of students and teachers work in a perfect camaraderie to achieve this goal. To meet the challenges of the present and the future, the department constantly fine tunes its academic excellence by strengthening its infrastructure and upgrading the course. Within a short span of time, the center has emerged as a major professional provider of IT industry. The future is aimed at further strengthening it to play role model in IT arena.

## **The Alumni:**

The Alumni of the institute are very well placed in India and abroad. Many hold senior and prominent positions in major corporations whereas some are also successful entrepreneurs. They have contributed significantly in all the areas of the Information Technology and have proved to be an invaluable asset to their organizations. They offer their insights and experiences to students of the department and share career advice through formal and informal exchanges.

## **Faculty Contribution:**

The faculties consist of highly qualified academicians and professional from IT world. They lay emphasis on the development of critical thinking, communication skills and teamwork. The visiting faculty has a deep involvement with the course in terms of their commitment and evaluation. Students come in direct contact with professional who bring contemporary computing techniques and practices to the classroom, thus giving a practical perspective.

## **Teaching Methodology:**

Diversity and flexibility in teaching methods is the key strength of our department. Our teaching and training philosophies utilizes the “hands on” and team work approach to computer education. Each faculty member employs the appropriate instruction methods consistent with the course content. The curriculum lays great emphasis on teamwork and participation, resulting in active interaction in the learning process. The varieties of teaching methods are designed to impart the subject matter. This includes team projects, assignments, case studies, group discussions, and presentations. At the same time, students also gain valuable knowledge by undertaking field projects and interaction with the IT world. Classroom teaching is supported by the live demonstration with projectors. The research aptitude of students is developed through dissertations in MCA and M. Tech. courses.

## **Performance Evaluation:**

The students are evaluated on basis of their class participation, class assignments, projects, periodic tests and semester examinations.

## **Laboratory:**

The laboratory at the Department functions in fully networked environment providing the students every software and hardware facility over a computing power that ranges from PC's to Minicomputers. The students have free access to high speed internet connection throughout the day.

## **Hardware Infrastructure**

- DECALPHA 2100
- 20DEC ALPHA VAX WORKSTATIONS
- DEC ALPHA 3000/600
- DEC ALPHA 3000/300
- LAYERED-2 MANAGED SWITCHES
- CORE CHASIS SWITCHES
- OPTICAL FIBRE BACKBONE 1 GBPS
- 3 IBM XEON 2000, 2003 SERVERS
- (WINDOWS 2000/ WEB)
- 2 DELL XEON SERVERS
- LINUX PROXY/MAIL SERVER
- WORKSTATIONS
- 20 P III WINDOWS NT WORKSTATIONS

- 45 IBM 65 DELL DUAL CORE COMPUTERS
- CISCO ROUTERS
- RAID MODEMS
- SWITCHESUSAT ERNET 512 KBPS

### **Software Infrastructure**

- OPEN INGRES
- ORACLE 8i/9i
- VISUAL STUDIO 6.0
- VISUAL STUDIO .NET EXPRESS EDITION
- ADOBE PHOTOSHOP 5.0
- MS OFFICE 2003
- ADOBE FLASH 4.0
- DREAM WEAVER
- JDK 1.6
- VISUAL PROLOG
- TURBO C (TC)
- TASM
- COBOL 9
- SPSS
- IBM DB2 EXPRESS EDITION
- WEKA 3.6
- TOMCAT 6.0
- CORAL DRAW 10.0
- VM WARE
- ANTI-VIRUS MICROSOFT FORE FRONT END
- POINT PROTECTION 2010)
- NOTEPAD++
- FOXIT READER
- AltovaXMLSpy 2008
- Virtual Box 4.0.4
- Packet Tracer 5.11
- NMAP 5.51
- WIRE SHARK 1.5
- PROLOG
- ADOBE FLASH PLAYER 11.0

## Operating Systems

- OSF/CDEC/UNIX
- OPEN VMS
- WINDOWS 2000/2003/2008 SERVER
- LINUX FEDORA CORE 12/CENTOS
- WINDOWS XP

## Library:

The students have access to a well-stocked library, which comprises of extensive collection of computer related books and periodicals over and above the Central Library of the University. The collection of books is updated regularly, as and when required.

## E-Governance Practices:

E-Sampark is an initiative towards automation of various academic activities of department so as to provide transparency between students and administration while easing the paper work at the same time.

## Courses Offered:

### Master Of Computer Applications

Course Type: Grant in Aid

Intake: 30

Eligibility: Graduate (Eligibility norms are governed by state government GR)

Duration: 3 years (divided into 6 semesters)

Course Commencement July-August

Selection Process: On the basis of score obtained at Entrance Test “GCET”. Details are available on website <http://www.gtu.ac.in/gcet>

Fees:

Semester	Boys	Girls
I	Rs.3450	Rs.1700*
II to VI	Rs.3140	Rs.1390*

\* No tuition fees for girls

Future Career opportunity: The MCA program prepares the student to take up high profile positions in the IT industry as analysts, system designers, developers and project managers in any area of computer applications as well as prepares student for research and academics. This course also grooms students to become entrepreneurs.

Syllabus: The detailed syllabus of all semesters can be viewed at <http://www.gujaratuniversity.org.in/web/WebSyllabus.asp>



## Post Graduate Diploma in Computer Science & Applications (PGDCSA)

Course Type: Grant in Aid

Intake: 33

Eligibility: 2<sup>nd</sup> class graduate in any discipline

Duration: 1 year (divided into 2 semesters) + 2 month system development project at the industry

Course Commencement: July

Selection Process: Through merit rank generated on the basis of entrance test conducted by Gujarat University.

Fees:

Boys	Girls
Rs.3500 per semester	Rs.1500 per semester*

\*(No tuition fee for female students)

Future Career opportunity: The PGDCSA program prepares the student to take up positions as programmer, web designer and lab administrator.

## M.Tech.(Web Technologies)

Course Type: Self-finance

Intake: 25

Eligibility: B.E. / B.Tech (Computer Science, Information Technology), M.C.A., M.Sc. (Information Technology, Computer Applications, Computer Science) or equivalent from any University recognized by the Association of Indian Universities. The students of Universities other than Gujarat University will be required to obtain eligibility certificate according to Gujarat University rules.

Duration: 2 years (divided into 4 semesters)

Course Commencement: July-August

Selection Process: Through merit rank generated on the basis of Entrance Test conducted by Gujarat University.

Fees: Rs.25,000 per semester

Future Career opportunity: Apart from research and academics, this course is designed to build IT consultants, system specialists, web developers and project managers.

Syllabus: The detailed syllabus of all semesters can be viewed at <http://www.gujaratuniversity.org.in/web/WebSyllabus.asp>

## **M.Tech. (Networking and Communications)**

Course Type: Self-finance

Intake: 25

Eligibility B.E. / B.Tech (Computer Science, Information Technology, Electronics & Communication), M.C.A., M.Sc. (Information Technology, Computer Applications, Computer Science) or equivalent from any University recognized by the Association of Indian Universities. The students of Universities other than Gujarat University will be required to obtain eligibility certificate according to Gujarat University rules.

Duration: 2 years (divided into 4 semesters)

Course Commencement: July-August

Selection Process: Through merit rank generated on the basis of entrance test

Fees: Rs.25, 000 per semester

Future Career opportunity: Apart from Research and Academics, this course is designed to build network analysts, network architects and network/security consultants.

Syllabus: The detailed syllabus of all semesters can be viewed at <http://www.gujaratuniversity.org.in/web/WebSyllabus.asp>

## **Post Graduate Diploma in Network Administration (PGDNA)**

Course Type: Self Finance

Intake: 30

Eligibility: B.C.A. B.Sc. (Computer Science, Information Technology, Computer Applications, Electronics), B.E. / B.Tech (Computer Science, Information Technology, Electronics & Communication), P.G.D.C.S.A. (one year), M.C.A., M.Sc. (Information Technology, Computer Applications, Computer Science) or equivalent from any University recognized by the Association of Indian Universities.

Duration: 1 year (divided into 2 semesters)

Course Commencement: August

Selection Process: Through merit rank generated on the basis of Entrance Test conducted by Gujarat University.

Fees: Rs.10, 000 per semester

Future Career opportunity: The PGDNA program prepares the student to take up positions as N/W admin, N/W technician, Technical supporter, System Admin and Lab Administrator.

Syllabus: The detailed syllabus of all semesters can be viewed at <http://www.gujaratuniversity.org.in/web/WebSyllabus.asp>

## Doctor Of Philosophy (Ph.D.)

Department of Computer Science, Gujarat University is one of the earliest in Gujarat to introduce Ph.D Programme. Currently there are two recognized Ph.D. Guides in Gujarat University in the subject of Computer Science. Both the guides are from the Department of Computer Science, Gujarat University.

Dr. Savita R. Gandhi, Professor and Head

Dr. Jyoti S. Pareek , Associate Professor

Many scholars are pursuing research under them.

For rules and other information visit  
<http://www.gujaratuniversity.org.in/web/WebCoursesDoctorate.asp>



## Faculty:

### Dr. Savita Gandhi, Professor and Head



**Ph.D.** (Mathematics)

**M.Sc.** (Mathematics)

**A.A.S.I** (By virtue of competition of A-groups Exams  
Conducted by Institute of Actuaries – London)

**Phone:** +91-79-26300877

**Email:** <mailto:srgandhi@gujratuniversity.ac.in>

### Research Interests

MANET (Mobile Adhoc Network), Data Compression, Image Processing, Cryptography, Data Mining.

[Publications](#)

### Subjects taught

Discrete Mathematical Structures, Linear Algebra, Numerical Methods, Statistical Methods, Optimization Models, Design and Analysis of Algorithms, Theory of Computation, Computer Graphics, Artificial Intelligence, Parallel Programming, Client Server architecture and Interfaces, Data Warehousing and Data Mining.

### Dr. Jyoti Pareek, Associate Professor



**Ph.D.** (Computer Science)

**M.Sc.** (Computer Science)

**B.Sc.** (Computer Science)

**Phone:** +91-79-26300877

**Email:** <mailto:jspareek@gujratuniversity.ac.in>

### Research Interests

Natural Language Processor, E-Learning, Semantic Web, Programming Language Paradigms.

[Publications](#)

### Subjects taught

Structured and Object Oriented Programming, Object Oriented Analysis and Design, System Software, Software Construction, Data Structures, Design and Analysis of Algorithms.

## Dr. Hiren Joshi, Assistant Professor



**Ph.D.** (Computer Science)

**M.Sc.** (IT&CA)

**B.Sc.** (Computer Science)

**Phone:** +91-79-26300877

**Email:** <mailto:hdjoshi@gujratuniversity.ac.in>

### Research Interests

Relational Data Base Management, Biometric Authentication System

[Publications](#)

### Subjects taught

Data Base Management System, Web Application Development, Client Server Architecture and Interfaces, .NET

## Mr. Hardik Joshi, Assistant Professor



**M.Phil** (Computer science)

**MCA**

**B.Sc. (Mathematics)**

**Phone:** +91-79-26300877

**Email:** <mailto:hjjoshi@gujratuniversity.ac.in>

### Research Interest

Information Retrieval, Networking, Yoga and Ayurveda

[Publications](#)

### Subjects taught

Operating Systems, Linux, Networking, Distributed Computing, Parallel Processing, Computer Graphics, Data Structures

### Ms. Suchit Purohit, Lecturer



**MCA**

**B.Sc. (Computer Science)**

**Phone:** +91-79-26300877

**Email:** [suchitpurohit@gmail.com](mailto:suchitpurohit@gmail.com)

### Research Interests

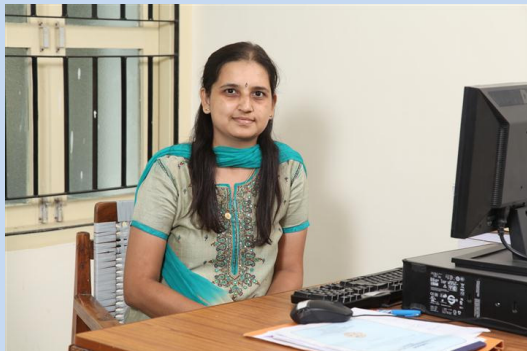
Image Processing, Wireless Networks, Data Mining, Machine Vision

[Publications](#)

### Subjects taught

Data Structures, Computer Organization, Network Security, Software Engineering. Computer Graphics and Multimedia, Wireless Networks and Mobile Phone Technology, Android Application Development

### Ms. Bhumika Shah, Lecturer



**MCA**

**B.Com.**

ADSE(H), MCSD Certified, Brainbench Certified in .Net and Oracle

**Phone:** +91-79-26300877

**Email:** [bhumikags@yahoo.co.in](mailto:bhumikags@yahoo.co.in)

### Research Interests

Data Base Management System

[Publications](#)

### Subjects taught

Data Base Management System, .NET, LINUX, UNIX, SQL, PL/SQL, Networking

## Ms. Sangeeta Premani, Lecturer



**MCA**

**M.A. (Economics)**

**B.A. (Economics)**

**Phone: +91-79-26300877**

**Email: [sang.premani@gmail.com](mailto:sang.premani@gmail.com)**

### Research Interests

Data Mining

### Subjects taught

Data Structure, DBMS, Web Technologies, Software Engineering, C language, Network Security

## Ms. Nirali Gandhi, Lecturer



**MCA**

**B.Sc. (Electronics)**

**Phone: +91-79-26300877**

**Email: [niraligandhi2710@gmail.com](mailto:niraligandhi2710@gmail.com)**

### Research Interests

Networking, Programming

### Subjects taught

Networking, Interconnecting Network devices, Fundamentals of Computer Organization, C languages, Shell scripting, Socket Programming

## Ms. Jigna Satani, Lecturer



**MCA**

**B.Sc. (Microbiology)**

**PGCSA**

**Phone:** +91-79-26300877

**Email:** [jignasatani@gmail.com](mailto:jignasatani@gmail.com)

## Research Interests

Bioinformatics

## Subjects taught

Software Lab, Fundamentals of Programming, Wireless Communications and Mobile Phone Technology

## Ms. Jinali Shah, Network Administrator



**M.Com.**

**B.Com.**

**PGDCSA**

**Phone:** +91-79-26300877

**Email:** [jinali20@gmail.com](mailto:jinali20@gmail.com)

## Visiting Faculties:

- Mr. M. J. Joshi, Ahmedabad Arts & Commerce College
- Dr. M. N. Patel, Department Of Statistics, Gujarat University
- Mr. Maulik Desai, K. S. School Of Management, Gujarat University
- Ms. Hiteishi Diwanji, L. D. College of Engineering, Ahmedabad
- Mr. Kaushal Bhavsar, Pratikar
- Ms. Priyanka Arora, K. S. School Of Business Management, Gujarat University
- Ms Kinnari kotak, K. S. School Of Business Management, Gujarat University
- Mr. Hardik Thakkar
- Ms. Alpa Sandesara
- Mr. Ankit Shah, ASITE Solutions Pvt. Ltd.
- Ms. Jinali Shah
- Mr. Chirag Thakker, L. D. College of Engineering, Ahmedabad
- Mr. Pathik Shah, TCS
- Ms. Madhvi Sadhwani, L.D. Engineering College
- Mrs Malti Mehta, EMRC, Ahmedabad
- Mrs. Smiriti Dagur
- Mr. Devendranath Sanyanasi, K. S. School Of Management, Gujarat University

## Placement Facility:

The placement activities at the institute are coordinated by a placement committee comprising of representative from amongst the students and placement coordinator of the Department. This committee acts as an interface between the organization and the students. The recruiters are renowned industries and companies like TCS, EliteCore etc. The e-Brochure for the current academic year can be downloaded from <http://www.mediafire.com/download.php?yb2eqa2gytte9yn>

Current Year (2012-13) Placement Detail:

MCA (Batch 2010-13) Strength: 30

Name of Organization / Company	Number of Candidates Selected
TCS	10
Elitecore Technologies Ltd.	02
Vyapar.com	02
Quipmnt limited	02
Evosys	02

M.Tech (Batch 2011-13) Strength: 40

Name of Organization/Company	Number of Candidates Selected
TCS	03



Previous Year (2011-12) Placement Detail:

MCA (Batch 2009-12) Strength: 30

Name of Organization / Company	Number of Candidates Selected
<b>TCS</b>	<b>05</b>
<b>Elitecore Technologies Ltd.</b>	<b>06</b>
<b>eInfochips Ltd.</b>	<b>02</b>
<b>Indusa</b>	<b>01</b>
<b>Evosys</b>	<b>01</b>
<b>Net4Nuts</b>	<b>01</b>
<b>Evolutionary systems private Ltd.</b>	<b>01</b>

M.Tech (Batch 2010-12) Strength: 40

Name of Organization/Company	Number of Candidates Selected
<b>TCS</b>	<b>03</b>
<b>Elitecore Technologies Ltd.</b>	<b>07</b>
<b>Academics</b>	<b>09</b>
<b>e-clinicalWorks</b>	<b>01</b>

Previous Year (2010-11) Placement Detail:

MCA (Batch 2008-11) Strength: 30

Name of Organization/Company	Number of Candidates Selected
<b>Argusoft India Ltd</b>	<b>04</b>
<b>Elitecore Technologies Ltd</b>	<b>06</b>
<b>eInfochips Ltd</b>	<b>02</b>
<b>IndiaNIC Ltd</b>	<b>06</b>
<b>Thomson Reuters Ltd</b>	<b>01</b>
<b>Compubits Solution Ltd</b>	<b>03</b>
<b>TinyERP</b>	<b>02</b>
<b>Silvertouch</b>	<b>01</b>
<b>Prensil Technologies Ltd</b>	<b>02</b>
<b>Archirayn Infotech</b>	<b>01</b>
<b>Zaptech Solution Ltd.</b>	<b>02</b>

## Events:

A one-day UGC sponsored workshop was organized on 31<sup>st</sup> March 2012. The workshop was graced by renowned speakers from different sectors like academics, civic administration and ICT industry who enriched the participants by their ideas and knowledge regarding impact of ICT on government activities.





## Student Activities:

[TOP](#)

To enrich the collegiate experience, the students organize, get involve and enjoy different sports, cultural and intellectual activities in a harmonious and homely environment.

