



# INSTITUTE OF SCIENCE & TECHNOLOGY FOR ADVANCED STUDIES & RESEARCH THE CHARUTAR VIDYA MANDAL (CVM) UNIVERSITY

Top Ranked College listed between 101-150 (2022), 151-200 (2021, 2023) and 201-250 (2024) in NIRF (National Institutional Ranking Framework) by MHRD (Ministry of Human Resource Development), Government of India, New Delhi

1<sup>st</sup> Rank (2020, 2021, 2022) & 3<sup>rd</sup> Rank (2019, 2023) College among all Colleges of Gujarat in GSIRF (Gujarat Institutional Rating Framework) by KCG (Knowledge Consortium of Gujarat), Department of Education, Government of Gujarat



## COMPUTER SCIENCE (MCA / M.Sc. IT Programme)

### About Master of Computer Application (MCA) : Course Designed based on Full Stack Development Theme

MCA programme of The CVM University is theme based programme that meets the IT industries demand and prepare qualified professionals. MCA Programme always emphasis concept oriented and practical based pedagogies approach for their learners.

**Course Duration:** 2 Years

**Eligibility:** As per AICTE/ACPC/CVMU Norms

A candidate shall have passed the qualifying examination of B.C.A. / B.Sc. (Computer Science) / B.Sc. (IT) / B.E. (CSE) / B.Tech. (CSE) / B.E. (IT) / B.Tech. (IT) or equivalent Degree or passed any graduation degree (e.g.: B.E. / B.Tech. / B.Sc. / B.Com. / B.A. / B.Voc. / etc.) preferably with Mathematics, Business Mathematics or Statistics at 10+2 level or Graduate level. Passing Criteria: Minimum 50% (45% for SC / ST / SEBC/EWS)

### About M.Sc. (Information Technology) : Course Designed based on Data Science Theme

Information Technology is the most captivating sector of the modern world. Every people and each of the organization are been fascinated by the technique of it. The objective of this course is to "Produce Master of Science (IT) students with technological and skilled abilities to work on real challenges of the industries and societal needs."

**Course Duration:** 2 Years

**Eligibility:** As per UGC/CVMU Norms

Who passed, B.Sc. (IT) | BCA | BBA(ISM / ITM) | BE (IT, EC, CE) | any Science Graduate who studied one theory course in Computer Science / Information Science from recognized University.

#### Course Contents: MCA

##### Sem-1

- Advanced Java Technologies
- Python Programming
- Machine Learning for Artificial Intelligence
- Current Trends in Web Programming

##### Sem-2

- Advanced Database Management Systems
- Full Stack Web Technologies
- Software Testing and Quality Assurance
- PHP Framework

##### Sem-3

- Mobile Application Development
- Advanced Concepts of Data Structure
- Cloud Computing
- Responsive Framework

##### Sem-4

- Internship(Project Work)

#### Course Contents: M. Sc. (IT)

##### Sem-1

- Java Programming and Application Development
- Python Programming for Data Applications
- Cloud Computing Essentials
- Data Analytics and Visualization

##### Sem-2

- Databases Systems and Management
- Data Mining Techniques and Applications
- Internet of Things (IoT) and Applications
- Web Development using Python Frameworks

##### Sem-3

- Cross-Platform Mobile Application Development
- Data Science with Machine Learning
- Deep Learning
- Data Structures and Algorithms

##### Sem-4

- Internship (Project Work)

#### Unique Features:

- Both courses are designed as per the current industry requirements. • Two year postgraduate programme affiliated to The CVM University. • Two course provides the knowledge, technical skill and solid background not only in the field of computer science but also would make them compatible with industrial standards. • Highly skilled and qualified pool of faculty members. • Seminars, Industrial visit, Study Tips, Expert Talks, Webinar, Summer Training, Bridge Course, hands on workshop and sport week for the overall student development. • Enriched library facility with latest edition books and periodical journals. • Majority of our students are employed in industries, consultancies and research organizations in several parts of our country and abroad also. • Well Equipped Laboratory & smart Classrooms.

**Program Outcomes:** Provide a platform to the students to interact with leading teachers, scientist, and industry practitioners.

- Technical Proficiency:** Post Graduates in computer science should possess a strong understanding of various programming languages, databases, software engineering principles, algorithms, data structures, and other technical aspects relevant to computer applications.
- Advanced Technology:** Students get the knowledge of latest technology which is currently required in industries.
- Problem-Solving Skills:** Post graduates in computer science should be adept at analyzing complex problems and devising efficient solutions using computational techniques and software development methodologies.
- Project Management:** Post programs often emphasize project management skills, including planning, scheduling, budgeting, resource allocation, risk management, and coordination, to ensure successful completion of software projects.
- Continuous Learning:** Given the rapidly evolving nature of technology, Post graduates should demonstrate a commitment to lifelong learning and professional development, staying updated with the latest trends, tools, and techniques in the field of computer applications.
- Career Readiness:** Ultimately, the goal of an MCA program is to prepare graduates for successful careers in various sectors such as software development, IT consulting, system analysis, database administration, project management, research, and academia. Graduates should possess the skills, knowledge, and mindset required to excel in their chosen career paths and make meaningful contributions to the field of computer applications.

ADMISSION

FOR NEXT ACADEMIC YEAR WILL START

FROM MAY

I S T A R

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