



# **M.O.P. Vaishnav College for Women (Autonomous)**

## **Chennai - 600 034.**

(College affiliated to University of Madras and Re-accredited at 'A++' Grade by NAAC)

### **Department of Information Technology**

#### **B.Sc. Computer Science**

#### **Information Brochure**

#### **About us**

B.Sc. Computer Science had its inception in the year 1994. From its inception, the Programme strives to produce competent IT professionals, with its innovative broad and flexible curriculum. The Programme offers blended learning by combining in-class and online activities. It emphasizes communication among peers with classroom seminars. It also encourages students to participate in paper presentation, projects development and research activities with the latest tools and technology.

#### **USP**

Formulation and Application of Computational approaches to script the next generation Computer Professionals.

#### **Eligibility Criteria**

Pass in the Higher Secondary Examination with Mathematics.

#### **Programme Outcomes, Programme Specific Outcomes and Course Outcomes**

For POs, PSOs and COs refer College Website:

<https://mopvc.edu.in/pos-psos-cos/>

## Curriculum

The Undergraduate programme offers courses which provide knowledge of software, hardware organization, operating systems, theory of computation and principles of programming languages. The flexible, updated curriculum and intensive hands-on training enables the students to gain-in-depth understanding, develop strong computational thinking, problem solving capability and programming skills, sculpting them to be the most sought after professional in the Information Technology arena.

## SUBJECTS OFFERED IN B.Sc. COMPUTER SCIENCE

### Core Courses

- C Programming and Visual Graphics
- Digital Logic Fundamentals
- Database Management Systems
- Computer Architecture and Microprocessor
- Programming in C++ and Data Structures
- Design and Analysis of Algorithm with Python
- Operating Systems with Linux
- Java and JSP Programming
- Computer Networks and Wireshark
- Data Mining and Data Warehousing
- Web Technology
- Data Analytics using Python
- Internet of Things and Digital Forensics
- Agile Software Engineering and Development
- Cloud Computing

### Allied Courses

- Statistics Using R
- Discrete Mathematics for Computer Science
- Resource Management Techniques
- Mathematics for Computer Science

## **Electives**

- HyperText Preprocessor and MySQL
- Software Testing

## **Interdisciplinary Elective offered by the Programme**

- Web Design using Open Source Technology

## **Non-Major Elective offered by the Programme**

- Data Visualization using Tableau I & II

## **Best Practices**

- Periodic updation of curriculum to be in par with industry requirements.
- Inculcating research practices amongst students and faculty through the conduct of International Conferences and Symposium.
- The inherent knowledge seeking nature of the students is showcased through innovative curricular activities.

## **Teaching Methodology**

The methodology and instructional techniques followed by the programme, enable students to shift progressively towards stronger understanding and greater independence in the learning process. Some of the teaching methods include.

- Experiential Learning through Open Source Code
- Web Video Learning
- Concept Simulator
- Supervised Learning & Peer Teaching
- Convergence Learning Method
- Language Parser for in-depth knowledge in Programming
- Teacher as Facilitator

## **Infrastructure and Laboratories**

The Department has state of the art computing facilities with three well equipped computer Laboratories.

## **Academic Achievements**

### **Pass Percentage of Students**

<b>Batch</b>	<b>B.Sc.(Computer Science)</b>
2019 – 2022	<b>100</b>
2018 – 2021	<b>100</b>
2017 – 2020	<b>100</b>
2016 – 2019	<b>100</b>
2015 – 2018	<b>100</b>

## **Students Achievements**

Students are encouraged to excel even beyond their classroom, by participating in intercollegiate activities. The students compete at regional level amongst various city colleges and have won several overall trophies and prizes.

## **Prominent Activities**

The Programme organizes a series of activities which aim at building a free knowledge sharing and learning platform by leveraging the powerful online tools.

## **Guest Lectures & Workshops**

The curriculum is supplemented with guest lectures and Workshops. Eminent personalities from diverse fields of prominent IT organisations and the Alumni students are invited to share their experience with the students, as part of industry institute interface.

### **Seminars/Webinars, Panel Discussions & Online Quiz**

Seminars, Panel Discussions, Online Quiz Programs, International Level Webinars are organized for faculty members and students.

### **Internships**

The students take up internships for a minimum period of one month to get acquainted with the working environment of an organization.

### **Prominent Placements**

Students of the Programme have taken up top positions in Software Development, Software testing, IT Management and Services, System and Data Analytics. Prominent recruiters include.

Deloitte

Indium Software

Infosys

Cognizant

Wipro

Virtusa

TCS

Intellect Design

### **Intramural and Intercollegiate Activities**

Competition is the way of life in the IT industry starting from the entry into the industry right up to the appraisals. The students are trained to face these challenges by participating and conducting competitions at Intercollegiate and Intramural level through the Programme Club-TECHGEN.

### **Journal**

The Programme journal 'TECHINFO' is a compendium of theme based articles on latest technologies contributed by the students. Theme based instructional method is followed to develop language skills and hone the writing skills of the students.



## **Projects**

The explicit model 'I Do you Watch' changes to 'You do I watch' which brings a fundamental shift in the way “The Learning Process” is viewed. Students are transformed from passive consumers into active producers by developing real time application projects.

## **Research Initiatives**

The Undergraduate Students are guided to explore the research areas of Information Technology and present their findings through publications. Students are motivated by faculty members to actively take part in International and National Conferences to present and publish research papers in peer reviewed and refereed journals.

## **Computer Fair**

Computer Fair is organised by the Department of Information Technology to showcase the students' software and hardware projects. This motivates the students to assimilate the theoretical concepts and apply them practically to develop real time projects.

## **International Conference**

The Department of Information Technology has organized five International Conferences on Communication, Computing and Information Technology (ICCCMIT) to provide a platform for academic research scholars, professionals and students to discuss, share and disseminate innovative and pioneering views on recent trends in computing.

## **Extension Activities**

Students Participate in Extension Activities to impart Revenue Generating Skills and basic Computer Skills for special and girl children through various knowledge sharing activities.

## **Alumni**

After completing the course, the students get placed in Top notch Multinational Companies and pursue higher studies. The Alumni excel in the respective fields and bring laurels to the college. The Alumni Contribute their knowledge to the Alma mater through various platforms.

<b>Name of the Alumni</b>	<b>Designation &amp; Company</b>
Ms. Deepika C	Business development Executive, Fresh Work
Ms. S S Ishwarya Lakshmi	BI Developer, Visual BI Solutions
Ms. Mathangi Ganesan	Software Engineer, Astrazeneca
Ms. Srivalli R	Analyst Programmer, Ramco Systems.

## **Careers after B.Sc. Computer Science Degree**

### **Higher Education**

- M.C.A
- M.Sc. Data Analytics
- M.B.A
- M.Sc. Software Engineering
- M.Sc. IT
- M.Sc. Computer Science
- M.Sc. Information Security & Digital Forensics

### **IT Positions**

- Developers
- Software Testers
- Programmers
- Software Analysts
- Team Leaders
- Data Analysts



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