



M.O.P. Vaishnav College for Women (Autonomous)
(College affiliated to University of Madras and Re-accredited at 'A++' Grade by NAAC)
Chennai - 600 034.

B.Sc. COMPUTER SCIENCE
3-Year Under Graduate Programme



GENESIS OF THE DEPARTMENT

Established in 1994, the Bachelor of Science in Computer Science is a 3 year undergraduate programme spread over 6 semesters. It has successfully completed 30 years of excellence and innovation in developing highly skilled IT professionals. Designed with a comprehensive and forward-thinking curriculum, the program incorporates a blended learning approach, seamlessly integrating classroom instruction with online activities.



USP

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

ELIGIBILITY CRITERIA

- (10+2) pass (Any Board) with Mathematics as compulsory subject
- Computer Science in Class XII is preferable.

PROGRAMME OUTCOMES, PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES

For POs, PSOs and COs refer
College Website:
<https://mopvc.edu.in/pos-psos-cos/>

COURSE CURRICULUM

The Undergraduate programme offers courses which provide knowledge of software, hardware organization, operating systems, theory of computation and principles of programming languages.

Courses focusing on Employability

- Python Programming Fundamentals
- Database Management Systems
- Design and Analysis of Algorithm with C
- Programming in C++ and Data Structures
- Java and JSP Programming
- Data Mining and Artificial Intelligence
- Web Technology
- Machine Learning and Deep Learning
- Agile Software Engineering and Development
- Software Testing
- Capstone Project



Courses focusing on Skill - Development

- Computer Architecture and Microprocessor
- Operating Systems with Linux
- Computer Networks and Wireshark
- Statistics for Data Analysis
- Resource Management Techniques
- Robotic Process Automation
- Data Visualization using Tableau I & II
- Mathematics and Fuzzy Logic
- Discrete Mathematics for Computer Science

Courses focusing on Entrepreneurship

- Computer Architecture and Microprocessor
- Digital Logic Fundamentals
- HyperText Preprocessor and MySQL
- Full Stack Development
- Web Design using Open Source Technology
- Internet of Things and Cloud Computing



Course Curriculum is subject to revision as per the university guide lines

INFRASTRUCTURE AND LABORATORIES

The Programme has state of the art computing facilities featuring 4 well equipped computer Laboratories with latest software, Digital lab and Super smart Class rooms



TEACHING METHODOLOGY

The methodology and instructional techniques followed, 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

ACADEMIC ACHIEVEMENTS

Pass Percentage of Students

BATCH	B.Sc.(COMPUTER SCIENCE)
2021 – 2024	100%
2020 – 2023	98%
2019 – 2022	100%
2018 – 2021	100%
2017 – 2020	100%

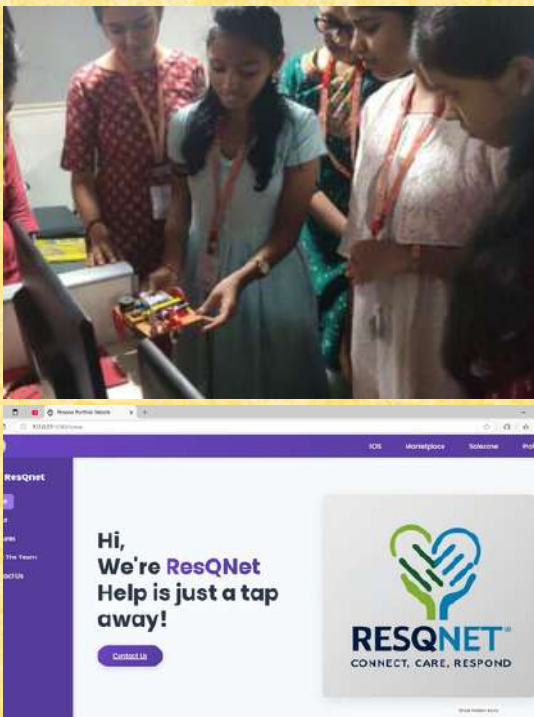
ACTIVITIES OF THE PROGRAMME

COMPUTER FAIR

Computer Fair is organized to showcase the students' software and hardware projects which motivates the students to assimilate the theoretical concepts and apply them practically to develop real time projects.



**Awarded First Place
Computer Fair (Science Division)**



PROJECTS

The learning process is redefined as students transition from passive learners to active creators. By developing real-time application projects, they gain hands-on experience, enhance problem-solving skills, and apply theoretical knowledge to practical scenarios. These projects provide a comprehensive understanding of the entire product development lifecycle—from ideation and design to implementation and deployment.

INTERNSHIP

Students are sent on internship for a minimum of one month to gain hands-on experience and familiarize themselves with the professional work environment. These internships help them apply theoretical knowledge to real-world scenarios, develop technical and soft skills, and build industry connections, enhancing their career prospects.

INTERNATIONAL CONFERENCE

The Department of Computer Science and Information Technology has organized Six 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.



Panel Discussion



Blockchain for Financial Transactions

Dr. Padmasini CS – Faculty, M.O.P Vaishnav College for Women

Sauri S – Student, M.O.P Vaishnav College for Women

Abstract — Blockchain technology, a decentralized and immutable digital ledger, is transforming financial systems, particularly in cross-border payments, by addressing challenges such as high fees, slow processing, and security vulnerabilities. Cryptography, the foundation of blockchain, employs techniques like encryption and hashing to secure transaction data, authenticate participants, and ensure data integrity. Such as fraud and money laundering add to the concerns surrounding traditional payment systems.

1.2 Blockchain Technology: Addressing Payment Challenges and Research Objectives

Blockchain technology offers a promising solution to the challenges of traditional cross-border payment systems. As a

Human Computer Interaction and Psychology

"Enhancing Human-Computer Interaction: A Cognitive Psychology Approach to User-Centric Design in Real-World Applications"

Ms. Geetha V

Department of Computer Science and Information Technology
M.O.P Vaishnav College for Women
Chennai, India

Email: geethav@opvaishnavcollege.com
Student, M.O.P Vaishnav College for Women

Abstract: Human-computer interaction (HCI) is the study of how people interact with computers and electronic devices, with the goal of improving the design and usability of these systems. HCI is a multidisciplinary field that draws on psychology, computer science, and design to create user-centered systems that are easy to use and effective.

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.

INTRAMURAL AND INTERCOLLEGIATE ACTIVITIES

In the dynamic IT industry, competition is a key to success, from securing a job to career growth. To prepare students for these challenges, they actively participate in and organize various intramural and intercollegiate competitions through the Programme Clubs – **TECHGEN** and **ONLINE**, honing their skills and fostering a spirit of excellence.



HACKATHON

The programme organizes hackathons to foster innovation, problem-solving, and teamwork. Students tackle real-world challenges, promoting collaboration, hands-on learning, and time-bound project development. Winners receive certifications, prizes, and internship opportunities, enhancing their skills, portfolios, and career prospects.



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.

STUDENTS' ACHIEVEMENTS AT INTER COLLEGIATE LEVEL

Students competing against top city colleges at various levels for the academic year 2024-25 have proudly secured:

3 overall trophies

1 runner-up

25 first places

15 second places

13 third places

cash prizes worth ₹ 18,600





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.

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:



PROMINENT INSTITUTIONS OF HIGHER STUDIES

Some of the universities that are proud host of our graduates.

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.



PROMINENT ALUMNI



Ms. J K Uthra
Test Automation Senior Analyst
Accenture - United Kingdom



JAYA VANDHANA S
Sr. Quality Assurance Engineer
LUMEL TECHNOLOGY
SOLUTIONS



Ms. Preethi
Senior Software Engineer
Hennes & Mauritz AB, SE
(Sweden)



Ms. Likitha
Senior SDET
Verizon Data Services Pvt
Limited, Chennai



Manju Geetha Raju
Associate General Manager - HR
HCL Tech



Prathiba MLK
Associate Director
Cognizant Technology



SHWETHA C
Web Developer
The Hindu



J.Arulmozhi Alamelu
Senior Project Manager
Innova Solutions



Aishwaria C
Data Analyst
LatentView Analytics



Ishverya Srinivasan
Senior Lead Quality
Analyst

CAREER PROSPECTS

After completing the B.Sc. Computer Science Degree, students can seek careers as

- Developers
- Software Testers
- Programmers
- Software Analysts
- Team Leaders
- Data Analysts
- Full stack Developer
- Database Analyst

HIGHER EDUCATION

Students can pursue the following Masters

- M.C.A
- M.Sc. Data Analytics
- M.Sc. Software Engineering
- M.Sc. IT
- M.Sc. Computer Science
- M.Sc. Information Security & Digital Forensics
- Masters in AI and Data Analysis
- M.B.A

Faculty Team



Dr. Sunitha Rani T

M.Sc. M.C.A. M.Phil., Ph.D.

Associate Professor & Head

Experience: 24 Years

Specialization - Cloud Computing

Areas of Interest: Fuzzy Mathematics, Internet of Things, Machine Learning



Dr. Padmasini C S

M.C.A. M.Phil., Ph.D

Assistant Professor

Experience: 24 Years

Specialization - Data Mining and Machine Learning

Areas of Interest: Agile Project Management, Java and JSP Programming and Data Visualization



Dr. Anusha R

M.C.A, M.Phil., Ph.D., (UGC-SET)

Assistant Professor

Experience: 19 Years

Specialization - Data Mining

Areas of Interest: Web Technologies, User Interface Technologies, Distributed Operating Systems



Dr. Surekha R

M.Sc., M.Phil., PhD.

Assistant Professor

Experience: 8 Years

Specialization - Image Processing

Areas of Interest: Cloud Computing, Internet of Things, Digital Forensics

CONTACT



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B.Sc. Computer Science

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