Department of Computer Science and Internet of Things

A new program called Computer Science and Internet of Things was launched in the academic year 2022–2023 with an intake of 50 students in order to satisfy the needs of the global community and prepare students to enter the engineering workforce. A distinct department called the “Department of Computer Science IoT” was established to carry out the program’s academic and research operations. Students in this programme will learn how to create smart applications that use microcontroller-based development boards, sensors, actuators, interface modules, and more to execute cloud operations through mobile apps, simulation tools, prototype devices, etc.

The curriculum is specially designed to satisfy the demands of students who must understand the fundamental functional and procedural features of this specialism and develop their careers to meet the demands of the global marketplace.

The course’s theme contains topics including software design, hardware design, networking, and holistic subjects. The application of many technologies, including software programming, embedded systems, ad hoc sensor networks, communication protocols, cloud computing, web services, big data analytics, etc., is taken into consideration in this curriculum.

Vision&Mission

Vision:

The Department of Computer Science and Internet of Things Vision is to provide students with a quality education, foster professionalism, and improve their problem-solving abilities in the fields of computer science and IoT with the goal of preparing them for careers in the industry and involving them in potential areas of research that they can engage in to pursue and continue their professional development.

Mission:

- To deliver high-quality education by utilizing available resources, infrastructure, and technology in the Internet of Things Sector.
- To provide students with cutting-edge research, creativity, and entrepreneurial facilities so they can develop moral solutions for the good of society
- To collaborate with the industry to keep pace with fast evolving g learning.

CoursesOffered

Courses Offered B.Sc. Computer Science and Internet of Things (3 years)

- Arduino, Raspberry Pi, IoT Architecuture.
- Sensors and Actuators, IoT Applications, Strategies in Industry 5.0
- C, Java and Python Programming DBMS , Machine Learning
- Artificial Intelligence, Cloud Computing, Big Data Analysis, Natural Language Processing.

Uniqueness of our program

- Hands-on Learning & Real-World Projects Practical exposure to IoT device prototyping, sensor integration, and real-time data processing.
- Industry Collaboration & Internships – Partnerships with leading tech firms, providing students with industry-relevant experience.
- Focus on Emerging Technologies – Integration of AI, 5G, edge computing, and blockchain for advanced IoT applications.
- Comprehensive IoT Security Training – Strong emphasis on cybersecurity, ethical hacking, and data privacy for IoT networks.

Career Opportunities

- IoT Developer/Engineer
- Embedded Systems Engineer
- IoT Security Analyst
- Smart Systems Engineer
- Automation & Smart Systems Engineer

Higher Education Prospects

- MSc in IoT & Embedded Systems
- MSc in Internet of Things (IoT)
- MSc in AI & Machine Learning
- MSc in Cybersecurity for IoT
- MSc in Wireless Communication & Networking

Admission Guidelines

Candidates must have completed 10+2 (Intermediate) with a minimum of 60% in MPC/MEC.

WhyLoyola Academy?

NAAC Accredited and recognized for academic excellence.

Strong industry connections ensuring top-notch placements. Innovation-driven approach with a focus on emerging technologies.

B.Sc.(Computer Science and Internet of Things)

SEM1 → SEM2 → SEM3 → SEM4 → SEM5 → SEM6

SEM1	SEM2	SEM3	SEM4	SEM5	SEM6
SUBJECTS	SUBJECTS	SUBJECTS	SUBJECTS	SUBJECTS	SUBJECTS
• GENERALENGLISH- • 1VALUE EDUCATION &PERSONALITYDEVELOPMENT • FUNDAMENTALS OF IOT • AND ROBOTICS MATRICES AND VECTOR CALCULUS PROBLEM SOLVING AND • PROGRAMMING IN 'C' • BASIC ELECTRONICS & CIRCUITS	GENERALENGLISH- • INDIAN HERITAGE AND • CULTURE DATA STRUCTURES • WITH C DISCRETE • MATHEMATICS • DIGITAL LOGIC DESIGN • COMPUTER ORGANIZATION	• GENERICELECTIVE • ENVIRONMENTALST UDIES&GENDERSE NSITIZATION • INTRODUCTION TO IOT • RASPBERRY PI PICO W • COMPUTER NETWORKS • PROBABILITY AND STATISTICS • SENSORS AND ACTUATORS • PYTHON PROGRAMMING	• JAVA PROGRAMMING • DISTRIBUTED COMPUTING DATA ANALYTICS FOR • IOT • MOBILE APPLICATION DEVELOPMENT FOR • IOT • ARTIFICIAL • INTELLIGENCE MICROPROCESSOR AND MICROCONTROLLER	• MACHINE LEARNING EMBEDDED SYSTEM DESIGN • IOT CLOUD SECURITY • DEEP LEARNING • BIG DATA • IOT ARCHITECTURE AND ITS PROTOCOL • ADHOC WIRELESS SESOR NETWORKS	• NATURAL LANGUAGE • PROCESSING PARALLEL PROGRAMMING • IOT ENABLED WEB • TECHNOLOGY APPLICATION OF IOT STRATEGIES IN INDUSTRY 5.0

EXTRA CURRICULAR ACTIVITIES	STUDENTSUPPORT	NON-CGPA COURSES	STUDENTCENTRIC METHODS
• SPORTS • AICUF • MAGIC YOUTH • RESONANCE • NCC • NSS	• ACADEMIC COUNSELING • MENTORING • GENERICELECTIVE • BRIDGE COURSE • SELF STUDY COURSE • ADDONCOURSE	• PLANET • NPTEL • CERTIFICATE COURSE	• MINOR PROJRCTS • INTERNSHIPS • RESEARCH PAPERS • POSTER PRESENTATIONS • GROUP DISCUSSIONS/ SEMINARS/DEBATES