Yarmouk University

Hijjawi Faculty for Engineering Technology

Computer Engineering Department

Bachelor of Internet of Things (IoT)

Program Overview

Brief introduction

The Internet of Things (IoT) program is designed to equip students with the skills and knowledge needed to develop and implement interconnected systems and devices that communicate through the internet. The program covers a range of topics, including embedded systems, wireless communication, cloud computing, and artificial intelligence, enabling students to create innovative IoT solutions for various applications.

Academic and practical goals

• Provide students with a strong foundation in IoT concepts, such as sensor networks, data communication, and system design.

• Equip students with practical experience in developing and deploying IoT systems in real-world environments.

• Foster problem-solving skills and innovation in designing IoT applications for various industries.

• Prepare students for leadership roles in the rapidly growing IoT sector by enhancing their technical and managerial abilities.

Importance of the program and its role in the job market

The IoT program plays a crucial role in meeting the growing demand for professionals who can design and implement smart, connected devices and systems. With applications spanning industries such as healthcare, transportation, and manufacturing, the IoT field offers significant career opportunities. As smart cities, automated industries, and healthcare innovations continue to rise, the program prepares students for a key role in these transformative fields, making it a highly valuable and sought-after discipline in the job market.

Career Opportunities

Available job opportunities

• IoT Engineer

• Embedded Systems Developer

• IoT Solutions Architect

• Data Analyst for IoT

• Cloud Computing Engineer

• IoT Security Specialist

• Smart Home Developer

• Industrial IoT Engineer

Sectors where graduates can work

- Smart Cities and Urban Development
- Healthcare and Medical Technology
- Transportation and Logistics
- Agriculture (Smart Farming)
- Manufacturing and Industry 4.0
- Information Technology and Software Development
- Telecommunications and Networking

Learning Environment and Facilities

Laboratories and facilities

The IoT program offers a good learning environment with specialized laboratories equipped with advanced tools and technologies including: IoT system development labs, featuring microcontrollers, sensors, and actuators. Wireless communication labs for learning about network protocols and communication technologies. Cloud computing labs to simulate and deploy IoT applications in cloud environments. Security labs for understanding and implementing IoT security protocols.

Overview of the Study Plan

The study plan for the IoT program is structured to provide both foundational and specialized knowledge. Initially, students take courses in mathematics, computer science, and electronics. As they progress, they study more advanced topics, including embedded systems, IoT architecture, and cloud computing. Practical skills are emphasized through laboratory work, projects, and internships that simulate real-world IoT applications. The program ensures students are well-prepared to contribute to the design and implementation of smart systems across various industries.

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