

BEng (Hons) in Electronic and Information Engineering (42470)

Streams of Study

Circuits and Systems

Specialize in the electronic circuits and systems areas; learn in-depth knowledge about analog digital circuits and their modern design methods, high frequency circuit design, database systems, various applications in energy conversion, Very Large Scale Integration (VLSI) ICs; gain knowledge in communications and electronics aspects of avionics.

Telecommunication and Mobile

Specialize in areas of wireless and mobile communication, optical communication and communication network; acquire solid foundation knowledge about communication and the various applications in mobile computer system and networking, optical networks, Internet Protocol (IP) network technology.

Information Security

Specialize in areas related to information security; build up a good foundation about database, wireless and mobile systems as well as network management and security; able to apply the knowledge acquired to digital forensics for crime investigation, intrusion detection and prevention, as well as surveillance studies and technologies.

Information Technology and Multimedia

Specialize in IT-related areas such as database, networking, network security, cloud technologies, IT management, and areas related to signals and systems, and related applications in multimedia etc.; acquire solid foundation knowledge about the various multimedia technologies used in audio, image, speech and video processing; be competent to develop web-based applications and mobile applications.

Year 4

EIE4110 Introduction to VLSI and Computer-Aided Circuit Design
EIE4112 Avionics Systems
EIE4402 Power Electronics
EIE574 High Frequency Circuit Design

EIE4102 IP Networks
EIE4103 Mobile Computer System Architecture
EIE4104 Mobile Networking
EIE4449 Optical Communication Systems and Networks
EIE531 Mobile Radio Communications

EIE4106 Network Management and Security
EIE4113 Wireless and Mobile Systems
EIE4114 Digital Forensics for Crime Investigation
EIE4115 Intrusion Detection and Prevention
EIE4116 Surveillance Studies and Technologies

EIE4100 Computer Vision and Pattern Recognition
EIE4103 Mobile Computer System Architecture
EIE4105 Multimodal Human Computer Interaction Technology
EIE4108 Distributed Systems and Cloud Computing
EIE4432 Web Systems and Technologies
EIE4435 Image and Audio Processing

Year 3

EIE3112 Database Systems
EIE3305 Integrated Analogue and Digital Circuits

EIE3112 Database Systems

EIE3112 Database Systems

EIE3109 Mobile Systems and Application Development
EIE3112 Database System
EIE3320 Object-Oriented Design and Programming

General Guidelines:

1. In order to specialize in a stream, students are advised to plan their subject selection early.
2. Study at least 3 EIE technical electives belonging to a stream in order to specialise in that particular stream.
3. Students are advised to choose the Honours Project which is related to the stream of study.

