

## BS Robotics

The Robotics BS program prepares undergraduates for work and advanced study in Robotics—the combination of sensing, computation and actuation in the real world. Robotics is on the verge of rapid growth, driven by both supply and demand. The supply side is driven by decreasing cost and increasing availability of sensors, computing devices, and actuators. The demand side is driven by national needs for defense and security, elder care, automation of household tasks, customized manufacturing, and interactive entertainment.

### SEMESTER 1

Personal Computer Concepts: Software and Hardware, English-I, Islamic Studies/Ethics (For Non-Muslim Students), Applied Calculus, Introduction to Artificial Intelligence, Computer Systems and C Programming

### SEMESTER 2

Computer Architecture, Universal Access: Disability, Technology and Society, Applied Physics, Linear Algebra, English-II, Introduction to Robotics

### SEMESTER 3

Applied Discrete Mathematics, Introduction to Statics Dynamics & Biomechanics, Ubiquitous and Mobile Computing, Logic Design, Probability and Statistics for Engineers, Computer Systems and Assembly Language

### SEMESTER 4

Robot Automation: Intelligence through Feedback Control, Data Compression, Parallel and Concurrent Programming, Introduction to Solid Mechanics, Introduction to Mechatronics, Microprocessor System Design

### PROGRAM HIGHLIGHTS

- 4 years degree program
- Enhances employability & assimilation factor in the market
- State-of-the-art academic system
- Saves valuable time, to manage work and studies together
- Transfer credits considered
- Entire program offered in all campuses
- Aims to make students competent professionals
- Free Transport facility available for main campus
- Scholarships and financial assistance provided.

### SEMESTER 5

Human-Computer Interaction, Introduction to Computer Networks, Digital Signal Processing, Sensing and Sensor Technologies, Software Engineering, Pakistan Studies

### SEMESTER 6

Image Analysis and Computer Vision, Graph Algorithms, Sensor Networks, Information Security, VLSI Computer-Aided Design, Human Factors

### SEMESTER 7

Error-Control Coding, Applied Feedback Control, Virtual Reality, Arithmetic Processors, Linear Dynamical Systems

### SEMESTER 8

Field-Programmable Gate Arrays Computer-Assisted Design, Advanced Topics in VLSI Computer-Aided Design, Advanced Topics in Visual Computing, Senior Design Project

### DISCLAIMER

All courses may not necessarily be offered every year. Alternate courses may be substituted as and when needed.

### ADMISSION REQUIREMENTS

For admission to the BS Robotics program, the candidate must have completed Intermediate with minimum 45% / A Levels (Minimum three Papers) or equivalent from a recognized institution.

### FACULTY

Most Biztek faculty have PhDs and postgraduate degree with years of experience in the academics and corporate world. Detail of faculty qualifications and experience can be found on the Biztek website.



**Institute of  
Business & Technology**

#### Shara-e-Faisal Campus (EDC)

Direct: 021-34301087

Cell: 0332-2277763

0332-2273358

Pabx: 021-34301085-8

#### Gulshan Campus

Direct: 021-34969987

Cell: 0332-2291994

0332-9964656

Pabx: 021-34969984-7

#### Nazimabad Campus

Direct: 021-36617948

Cell: 0332-2641371

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Pabx: 021-36617946-49

#### Main Campus

Direct: 021-35120461

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