



Industrial Automation Ia (Engr. Muhammad Nabeel)



Electronics lab (Engr. Muhammad Shan)



Robotics & Control lab (Engr. Ismail Manssor)



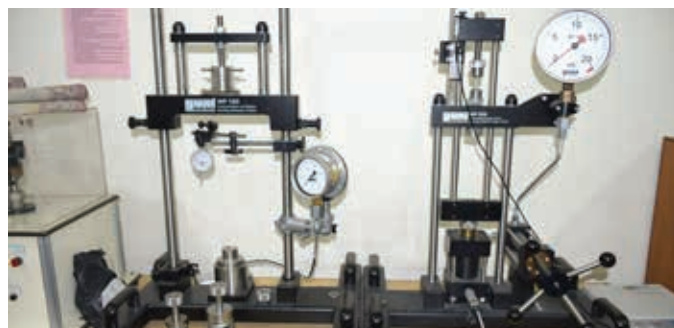
Engineering Drawing lab (Engr. Hamza Baig)



Thermo Fluids lab (Engr. Hakeem Fakhruddin)



Design and Simulation lab (Engr. Khalil ur Rehman)



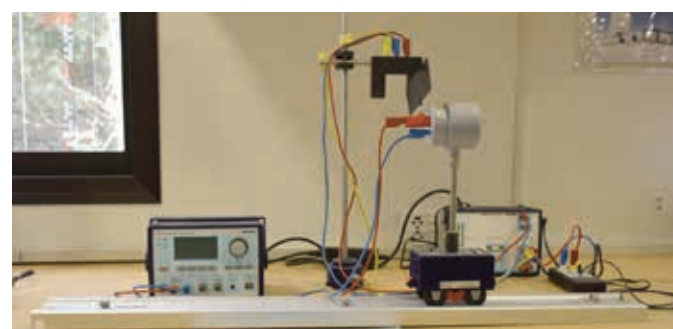
Mechanics lab (Engr. M. Atif Saeed)



Project lab (Engr. Mubeen Ahmed)



Engineering Workshop (Engr. Fahad Ahmed)



Physics lab (Engr. Ahmar Hayat Khan)

**Shaheed Zulfikar Ali Bhutto Institute of Science & Technology**

90 & 100 Clifton, Karachi, Pakistan, Tel: (021)111 922 478, Fax: (021) 35830446, E-mail: info@szabist.edu.pk, www.szabist.edu.pk



Accredited by  
Pakistan Engineering  
Council (PEC)

**Faculty of Computing & Engineering Sciences**

**BE-Mechatronic Engineering**  
**MS-Mechatronic Engineering**

**Mechatronics Philosophy**

Mechatronics is a multidisciplinary field of engineering; it refers to an efficient and effective integration of mechanical and electronic systems.

A mechatronic engineer unites the principles of mechanics, electronics, and computing to generate a simpler, more economical, reliable and versatile system.

**Inventing the Future...**



**SZABIST**



**Shaheed Zulfikar Ali Bhutto Institute of Science & Technology**

# Faculty

## Dean (Computing & Engineering Sciences)

**Dr. M Altaf Mukati**

Ph.D (Computer Engg.),  
Boston/Hamard University.

## Head of Department

**Dr. Faraz Junejo**

Ph.D (Mechatronics Engg.),  
Loughborough University, UK.

## Assistant Professor

**Dr. Raza Akbar**

PhD (Aeronautical Engg.),  
Rensselaer Polytechnic Institute, USA.

## Professor/Director ORIC

**Dr. Ahmed Hussain**

PhD (University Technology, Malaysia)  
Mechanical Engineering

## Assistant Professor

**Engr. Humera Rafique**

MS (Telecommunication Engg.), SSUET, Karachi.

## Assistant Professor/Program Manager

**Engr. Aneel Ahmed**

MS (Telecommunication Engg.),  
NUCES-FAST Lahore

## Assistant Professor

**Engr. Abdul Hussain Saeed**

MS (Electrical Engg.),  
Texas Tech University, USA

## Assistant Professor

**Engr. Tanzila Younas**

MS (Industrial Manufacturing Engineering &  
Management), NUST, Karachi.

## Assistant Professor

**Engr. Moez Ul Hassan**

MS (Electrical Control Engg.),  
NUST, Karachi.

## Lecturer

**Engr. Khurram Amjad**

ME (Mechanical Engg.),  
Sheffield University, UK

## Lecturer

**Engr. Nasreen Bano**

ME (Micro System Design),  
NED University, Karachi.

## Lecturer

**Engr. Farhan Mumtaz**

MS (Hamard University)  
Industrial Control & Automation

## Lecturer

**Engr. Sarmad Hameed**

MS (Industrial Control & Automation),  
UIT, Karachi.

## Mechatronics at SZABIST

This program in Mechatronics provides a structured hands-on approach to understand microcomputer and control technology, coupled with engineering design integration applied to products. For this purpose, the department offers a program that includes various engineering science courses from the relevant fields in addition to a strong foundation in basic sciences and mathematics.

Furthermore, state-of-the-art scientific and technological research laboratories with campus licensing of wide range of commercial developmental software provides an environment unrivaled by majority of reputed universities in Pakistan.

SZABIST is ranked as one of the most reputed university by HEC and Chartered Inspection and Evaluation Committee (CIEC). SZABIST Business School has been rated as "Outstanding" by CIEC and HEC, Pakistan. In addition, all the relevant programs are accredited and recognized by NBEAC, NCEAC, NACTE, PEC, and KHDA Dubai. Since 2012, the SZABIST-QEC has been awarded more than 91% in the quantitative assessment by Quality Assurance Agency (QAA) HEC, Pakistan.

## BE Mechatronics Program Objectives

The objectives of the program are to provide a broad and basic education in multiple disciplines comprised of Mechanical, Electronics, and Computer Engineering, and to ensure that all students in the program are exposed to a wide spectrum of engineering knowledge and practice.

The goal is to educate and train engineers who are proficient in the state-of-the-art as well as emerging technologies in all key areas of the discipline. The students will acquire engineering problems. An important objective of the program is to offer a curriculum that evolves to keep pace with the rapid growth of technology in various areas of Mechanical and Electronics engineering.

## MS Mechatronics Program Objectives

The broad objectives of the Master's program in Mechatronics Engineering are to instill in its students a solid foundation of mathematical, scientific and engineering knowledge in addition to developing the intellectual skills essential for prosperity and success in their careers. The program is structured in such a manner that the students are provided a firm theoretical foundation with opportunity to strengthen their knowledge through research assignments, practical training and projects. The objectives of Masters in Mechatronics Engineering program are to:

Enable students to pursue a rigorous post doctorate / research program in Mechatronics Engineering.  
Improve the marketability of our students in the local industry, public sector and R&D organizations.  
Provide technical confidence and financial guidance needed to start a small-scale industry to graduates interested in self-employment.

## Employment Opportunities

Graduates with a Mechatronic degree can take up careers in a wide spectrum of industries including:

- Robotics
- Aerospace
- Chemical
- Defense
- Automotive and Manufacturing
- Health, Medical and many more

As well as in businesses that requires extensive computer support, such as banking and commerce.

Contributions can be made to these industries in a variety of roles including design engineer, software engineer, project planner, product designer and project manager.

## BE (Mechatronic Engineering) Program

SZABIST offers a 4-years (eight semesters) BE (Mechatronic). The BE Program is essentially a day program and consists of 46 courses (generally five or six courses per semester) with a total of 140 credit hours, and an internship. The maximum time limit to complete the BE degree is 6-years.

## Admission Requirements

The candidate must have completed intermediate (Pre Engineering)/O Levels (minimum 8 passes) & A levels (minimum 3 passes)/equivalent qualification with a combination of (Mathematics, Physics and Chemistry) with minimum 60% marks (those waiting for result can also apply).

Equivalency of grades for the candidates having Cambridge High School Certificate with Mathematics, Physics and Chemistry subjects are obtained as follows:

A-Level Grade	A	B	C	D	E
Equivalent Intermediate %	85	75	65	55	45

- Candidates with DAE (Mechanical/Electronics/Electrical/ Instrumentation/Automation) having at least 60% aggregate marks from an institute recognized by the Government can also apply.
- Minimum 60% aggregate marks each in matriculation and in Intermediate/equivalent exams.
- Please note that no deviation in this regard is allowed.
- Inter Board Committee of Chairmen (IBCC) equivalency is required for O & A Levels/IB Diploma/High School Diploma or equivalent. General Paper (A Levels) will not be counted.

## Scholarships and Financial Assistance

### SZABIST Funded Scholarships

- SZABIST Need-Based Scholarship
- SZABIST Merit-Based Scholarship

### External Donor Funded Scholarships

- Sindh Endowment Fund Scholarships
- Balochistan Endowment Fund Scholarships (BEFS)
- Balochistan Education Endowment Fund Scholarships (BEEFS)
- Chief Minister - SZABIST Merit and Need-Based Scholarships
- Prime Minister's National ICT R&D Fund Scholarships
- National Grass Root ICT Research Initiative (NGIRI)
- Ihsan Trust Qarz-e-Hasna Facility
- Khairpur District Scholarships
- Ministry of Religious Affair & Interfaith Harmony
- NTS- Need-Based Scholarship Program

## Fee Structure\*\*

	For Pakistani Nationals	Foreign Nationals
Admission Fees:	Rs. 20,000	US\$ 500
Security Deposit (refundable):	Rs. 10,000	US\$ 330
Student Activity Charges:	Rs. 1000	US\$ 30
Tuition Fees per Course (BE-Mechatronics)*:	Rs. 15,900	US\$ 375
Tuition Fees per Course (MS-Mechatronics)*:	Rs. 21,000	US\$ 495

Note: \*\*SZABIST reserves the rights to revise the fee/withdraw of scholarship without any prior notice. \*3 Credit Hour fee.

Admissions Start	: May 07, 2018
Last Date to Apply	: July 14, 2018
Admission Test	: July 18-21, 2018
Interviews	: July 28 to August 03, 2018
Classes Commence	: September 3, 2018

## MS (Mechatronic Engineering) Program

SZABIST offers MS (Mechatronic Engineering) degree with two specializations; namely: Robotics & Industrial automation and Smart Electromechanical Systems. The program is of 2-years duration and is offered in the evening. In addition to five core courses, students are required to complete 3 elective courses in their choice of specialization. Although students are encouraged to undertake Thesis/Research Project of 6 credit hours, but they also have an option to undertake two elective courses in lieu of the Thesis/Research Project in their choice of specialization. The maximum time limit to complete the MS degree is 4-years.

## Admission Requirements

For admissions in the MS Mechatronic Engineering program, candidates must possess BE in Mechatronics/Mechanical/ Electronics/Electrical /Telecommunication/Industrial/Manufacturing/Aerospace/Avionics with minimum 55% marks/2.0 CGPA from a university recognized by HEC. Bachelor of Engineering Degree must be accredited by PEC. GAT (General) or HAT relevant is mandatory for MS students with minimum 50% score. Last degree verification from HEC is required.



# Admission Schedule

for queries: mechatronics@szabist.edu.pk

<https://twitter.com/SZABISTKarachi>

<https://www.facebook.com/szabistofficial>

## APPLY ONLINE:

Log on to : <http://admissions.szabist.edu.pk>  
Online applications can also be filled at SZABIST campus

For further information please contact:

F-153, Clifton, Block-5, Karachi, Pakistan. UAN: 111-922-478,  
Tel: 021-35823433 (Ext:147-148-104). Fax: 021-358 21537. [www.szabist.edu.pk](http://www.szabist.edu.pk)