

Director

Prof. Dr. S. Riaz Akbar Shah Ph.D (USA)

Associate Professor

Dr. Muhammad Tahir Khan Ph.D. (Canada)

Assistant Professors

Dr. haji Faridullah Khan	Ph.D. (Canada)
Dr. Izhar-ul-Haq	Ph.D. (UK)
Dr. Kamran Shah	Ph.D. (UK)
Dr. Shahzad Anwar	Ph.D. (UK)
Engr. Muhammad Akmal	M.Sc (USA)
Engr. Sheraz Ali Khan	M.Sc (Pak)

Lecturers

Engr. Hamid Khan	B.Sc (Pak)
Engr. Sikandar Khan	M.Sc (Pak)
Engr. Zubair Ahmad	M.Sc (Pak)
Engr. Ms. Nayyar Fazal	M.Sc (Pak)
Engr. Ms. Anam Abid	B.Sc (Pak)
Engr. Ms. Sadaf Sardar	B.Sc (Pak)
Engr. Ms. Gulbadan Sikandar	B.Sc (Pak)
Engr. Muhammad Tufail	M.Sc (Bangkok)
Engr. Bilal Ahmad	M.Sc (UK)

Lab Engineer

Engr. Faiz Muhammad M.Sc (Pak)

Institute of Mechatronics Engineering

Modern day machines increasingly incorporate electronics and microprocessors for intelligent control and increased efficiency such as electronic control of engines, computer control of machine tools, Robots, medical equipment and items of our daily life including automobiles, digital cameras, smart phones, tablets, DVD players and kitchen appliances. Design, production and operation of these machines require engineers with a knowledge base acquired from multi-engineering disciplines. Mechatronics Engineering is a relatively new but very exciting field that combines knowledge from the disciplines of Mechanical, Electronic and Computer Engineering.

The Institute has a very good number of PhD faculty members who have specialized knowledge in the field of Mechatronics Engineering thus enabling it to offer MS and PhD degree programs of its own. The Undergraduate program of the Institute of Mechatronics Engineering not only draws upon the expertise of its PhD faculty members but also has at its disposal, highly talented faculty members who hold Master degrees in engineering from reputed universities across the country and abroad.

The Undergraduate degree program in Mechatronics Engineering is constantly reviewed and upgraded through the help and guidance of eminent academicians and experts from Pakistan and abroad, making it a cutting edge program that best meets the requirements of our industry.

The Institute of Mechatronics Engineering has

been setup by the University as a state of the art facility with all amenities required for a modern higher education institute in engineering. The campus is situated in Hayatabad Peshawar, and is spread over an area of 45 kanals. A regular shuttle bus service is provided to connect it with the main campus.

The Institute of Mechatronics has a host of laboratory facilities to help hone the practical and hands-on skills of its students. Recently through funding from the Higher Education Commission of Pakistan, a state of the art PLC Training Laboratory has been setup that features twelve Siemens S7-1200 PLC training modules. Besides the laboratories mentioned below, students of this institute also avail the lab facilities of other departments of the university.

Laboratories

- > Electrical & Electronics Laboratory
- > Microcontroller and Microprocessor Laboratory
- > Mechatronics Design Laboratory
- > Fabrication Shop
- > Robotics Laboratory
- > Instrumentation & Control Laboratory
- > Manufacturing Automation Laboratory
- > Computational Laboratory
- > PLC Training Laboratory

Degree Programs

- > B.Sc Mechatronics Engineering
- > M.Sc Mechatronics Engineering
- > Ph.D Mechatronics Engineering



Scheme of Studies

Semester 1		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
BSI-173	Calculus & Analytic Geometry	3	0	3
BSI-143	Communication Skills	3	0	3
MtE-101	Engineering Statics	3	0	3
BSI-101	Islamic Studies	2	0	2
BSI-110	Pakistan Studies	2	0	2
MtE-103	Workshop Practice	0	2	2
MtE-105	Electric Circuits	2	1	3
Total Credit Hours		15	3	18
Cummulative Credits		18		

Semester 3		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
BSI-112	Vector Calculus	3	0	3
MtE-201	Dynamics	3	0	3
MtE-205	Electronic Principles & Devices	3	1	4
MtE-221	Materials & Manufacturing Processes	3	0	3
MtE-203	Thermodynamics & Heat Transfer	3	1	4
MtE-233	Digital Logic Design	2	1	3
Total Credit Hours		17	3	20
Cummulative Credits		56		

Semester 5		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
MtE-350	Numerical Methods	2	1	3
MtE-311	Fluid Mechanics, Hydraulics & Pneumatics	3	1	4
MtE-316	Microprocessor & Microcontrollers	3	1	4
MtE-317	Transducers and Instrumentation	3	1	4
MtE-321	Mechanical Vibrations	2	1	3
MtE-323	Theory of Machines	2	1	3
Total Credit Hours		15	6	21
Cummulative Credits		97		

Semester 7		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
MtE-405	Robotics	3	1	4
MtE-422	Industrial Automation	2	1	3
MtE-451	Management Sciences Elective	3	0	3
MtE-453	Engineering Economics	3	0	3
MtE-441	Senior Design Project	0	3	3
Total Credit Hours		11	5	16
Cummulative Credits		131		

Total Credit Hours = 140

Semester 2		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
BSI-232	ODE & Linear Algebra	3	0	3
BSI-181	Applied Physics	3	0	3
MtE-104	Engineering Drawing	0	2	2
MtE-111	Network Analysis	2	1	3
MtE-131	Computer Programming	3	1	4
MtE-158	Technical Report Writing	3	0	3
Total Credit Hours		14	4	18
Cummulative Credits		36		

Semester 4		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
BSI-362	Transforms & Complex Analysis	3	0	3
MtE-211	Electronic Circuits Design	3	1	4
MtE-254	Professional Ethics	2	0	2
MtE-222	Mechanics of Materials	2	1	3
MtE-225	Electromechanical Systems	3	1	4
MtE-231	Data Structures & Object Oriented Prog.	3	1	4
Total Credit Hours		16	4	20
Cummulative Credits		76		

Semester 6		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
MtE-351	Probability Methods in Engg	3	0	3
MtE-313	Power Electronics	3	1	4
MtE-322	Design Mech Elem & CAD/CAM	2	1	3
MtE-325	Mechatronics System Design	2	2	4
MtE-328	Control Systems	3	1	4
Total Credit Hours		13	5	18
Cummulative Credits		115		

Semester 8		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
MtE-423	Engineering Elective I	3	0	3
MtE-424	Engineering Elective II	3	0	3
MtE-441	Senior Design Project	0	3	3
Total Credit Hours		6	3	9
Cummulative Credits		140		