

Coordinator

Dr. Imran Khan Ph.D. (Thailand)

Chairman

Dr. Shahbaz Khan Ph.D. (UK)

Semester Coordinator

Miss. Naznina Hakim Khan M.A (Pak)

Assistant Professors

Dr. Imran Khan	Ph.D. (Thailand)
Dr. Akhtar Khalil	Ph.D (UK)
Dr. Shoaib Khan	Ph.D (UK)
Dr. Naveed Mufti	Ph.D (UK)
Dr. M. Abbas Mahmood	Ph.D (Thailand)
Dr. Murtaza Ali Bangash	Ph.D (Pak)
Dr. Akhtar Nawaz Khan	Ph.D (Thailand)
Engr. Aziz Ahmad Khan	M.Sc (UK)
Engr. Jalal Khan	M.Sc (UK)
Engr. Shagufta Naz	M.Sc (Pak)

Lecturers

Engr. Sajjad Ali	M.Sc (Pak)
Engr. Zawar Hussain	M.Sc (USA)
Engr. Nagina Zareen	B.Sc (Pak)
Mr. Mushtaq Ahmad Khan	M.Sc (Pak)
Miss. Shazia Habib	M.Sc (Pak)
Miss. Naznina Hakim Khan	M.A (Pak)

Lab-Engineers

Engr. Usman Ali	B.Sc (Pak)
Engr. Saida Jabeen	B.Sc (Pak)
Engr. Marina Karim	B.Sc (Pak)
Engr. Gul Rukh	B.Sc (Pak)
Engr. Usman Ali	B.Sc (Pak)

Department of Telecommunication Engineering Mardan Campus

The world of Telecommunication is evolving so rapidly that the devices and techniques that are new today will be tools you are expected to understand and use by the time you graduate. Because of the relentless drive of the technological evolution, you need to understand the fundamental principles underlying the technologies, be skilled in their application and be able to adapt rapidly to technological changes throughout your career.

The department currently offers B.Sc. Telecommunication Engineering programme which is in conformance with the guidelines of the Higher Education Commission of Pakistan. The B.Sc. programme is a broad-based course which aims to produce well-rounded engineers with high level of analytical and engineering design skills. Graduates will develop a sound knowledge of all aspects of Telecommunication Engineering and related areas.

Research

The department provides a research friendly environment. Our laboratories have state of the art testing equipment and software simulators.

Research Output

- Research Journals: 20
- Research Conferences papers: 42
- Book Chapters: 03

Research Projects

The department of Telecommunication Engineering is at the forefront of innovation and excellence in Engineering through consistent and expanding research. Our faculty members have successfully collaborated with the local and international Industry to design Engineering solutions for our local problems. The department recently received a research grant of Rs. 25.5 million from the ICT R&D Fund Islamabad, for research and development under the project called 'Crop Estimation and Geographic Mapping System (CEGMaS)'.

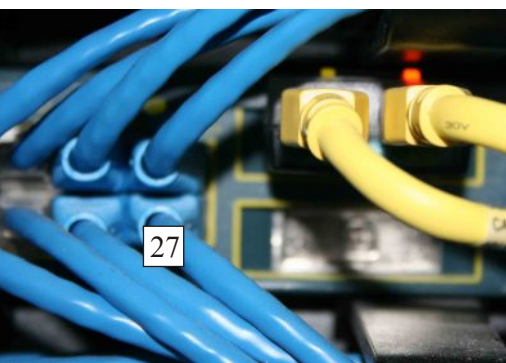
Project CEGMaS will focus on identification and classification of tobacco crop and its seven species through the use of advance

image processing techniques over Hyperspectral satellite imagery providing tobacco crop yield estimates to various stakeholders of the Tobacco Industry and the Government's regulatory bodies. CEGMaS will include the pilot regions of Shergarh (District Mardan) and Sawabi – both regions contribute to over 75% of the total tobacco grown in Khyber Pakhtunkhwa. To enhance the accuracy of the estimation, CEGMaS will use GPS enabled smart phone applications developed during the project to collect 'ground-truth data'. The geographically mapped information will be available through a GIS for analysis by various stakeholders.

CEGMaS is a collaborative research project of UET, Peshawar and the Pakistan Space & Upper Atmosphere Research Commission (SUPARCO) and would last for 3 years. Among many other benefits of the project, the project also provides funding for two Ph.D. studentships. It is hoped that the project will help in capacity building of UET in areas including Remote Sensing and GIS.

Laboratories

- Fibre Optics
- Control Systems
- Basic Electronics
- Applied Physics
- Wireless Communication
- Antenna design
- Microwave Engineering
- Communication Electronics
- Radar and Digital Communication
- Principles of Communication
- Final Year Project Laboratory



Scheme of Studies

Semester 1		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
BSI-122	Calculus	3	0	3
BSI-142	English Composition and Comprehension	3	0	3
BSI-181	Applied Physics	3	0	3
BSI-181L	Applied Physics Lab	0	3	1
TE-101	Introduction to Computing	2	0	2
TE-101L	Introduction to Computing Lab	0	3	1
BSI-101	Islamic Studies	2	0	2
TE-102L	Computer Aided Engineering Drawing	0	3	1
Total Contact Hours		13	9	
Total Credit Hours		13	3	16

Semester 3		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
BSI-362	Complex Variables & Fourier Series	3	0	3
TE-201	OOP and Data Structures	3	0	3
TE-201L	OOP and Data Structures Lab	0	3	1
TE-202	Circuit Analysis	3	0	3
TE-202L	Circuit Analysis Lab	0	3	1
TE-203	Electronic Devices & Circuits	3	0	3
TE-203L	Electronic Devices & Circuits Lab	0	3	1
TE-204	Engineering Economics	3	0	3
Total Contact Hours		15	9	
Total Credit Hours		15	3	18

Semester 5		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
TE-301	Electromagnetic Fields	3	0	3
TE-301L	Electromagnetic Fields Lab	0	3	1
TE-302	Communication Systems	3	0	3
TE-302L	Communication Systems Lab	0	3	1
TE-303	Digital Signal Processing	3	0	3
TE-303L	Digital Signal Processing Lab	0	3	1
TE-304	Technical Report Writing	3	0	3
TE-310	Probability Methods in Engineering	3	0	3
Total Contact Hours		15	9	
Total Credit Hours		15	3	18

Semester 7		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
TE-401L	Final Year Project-I	0	9	3
TE-402	Computer Communication & Networks	3	0	3
TE-402L	Computer Communication & Networks Lab	0	3	1
TE-403	Control Systems	3	0	3
TE-403L	Control Systems Lab	0	3	1
TE-404	MBC Depth Elective I	3	0	3
TE-405	RF & Microwave Engineering	3	0	3
TE-405L	RF & Microwave Engineering Lab	0	3	1
Total Contact Hours		12	18	
Total Credit Hours		12	6	18

Total Credit Hours = 136

Semester 2		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
BSI-111	Linear Algebra	3	0	3
TE-103	Basic Electrical Engineering	3	0	3
TE-103L	Basic Electrical Engineering Lab	0	3	1
TE-104	Computer Programming	3	0	3
TE-104L	Computer Programming Lab	0	3	1
BSI-143	Communication and Presentation Skills	3	0	3
BSI-110	Pakistan Studies	2	0	2
BSI-120	Professional Ethics	2	0	2
Total Contact Hours		16	6	
Total Credit Hours		16	2	18

Semester 4		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
BSI-231	Differential Equations	3	0	3
TE-205	Signals & Systems	3	0	3
TE-206	Amplifiers & Oscillators	3	0	3
TE-206L	Amplifiers & Oscillators Lab	0	3	1
TE-207	Digital Logic Design	3	0	3
TE-207L	Digital Logic Design Lab	0	3	1
TE-208	Measurements and Instrumentation	3	0	3
TE-208L	Measurements and Instrumentation Lab	0	3	1
Total Contact Hours		15	9	
Total Credit Hours		15	3	18

Semester 6		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
TE-305	Digital Communication	3	0	3
TE-305L	Digital Communication Lab	0	3	1
TE-306	Wireless & Mobile Communications	3	0	3
TE-307	Antennas and wave Propagation	3	0	3
TE-307L	Antennas and wave Propagation Lab	0	3	1
TE-308	Microprocessors and Interfacing Techniques	3	0	3
TE-308L	Microprocessors & Interfacing Techniques Lab	0	3	1
TE-309	Engineering Management	3	0	3
Total Contact Hours		15	9	
Total Credit Hours		15	3	18

Semester 8		Contact hours		Credit hours
No.	Course	Theory	Lab.	Total
TE-401L	Final Year Project-II	0	9	3
BSI-242	Numerical Analysis	3	0	3
TE-406	MBC Depth Elective II	3	0	3
TE-407	Social Science Elective I	3	0	3
Total Contact Hours		9	9	
Total Credit Hours		9	3	12