

UNIVERSITY OF ENGINEERING AND TECHNOLOGY, TAXILA



Department of Electronics Engineering PhD. Curriculum (2014-19)

(All Courses carry 3 credit hours except Research Thesis)

Course No.	Course Title
Core Courses	
EN-6001	Advanced Engineering Mathematics
EN-6002	Random Processes and Statistics
EN-6003	Numerical Analysis
Elective Courses	
Automation and Control	
EN-6101	Large Scale Systems and Control
EN-6102	Multi-Agent Systems and Control
EN-6103	Robot Motion Planning and Control
EN-6104	Networked Control Systems
EN-6105	Distributed Parameter Systems
EN-6106	Vehicle Dynamics and Control
EN-6107	Automation Theory
EN-6108	Discrete-Event Systems and Control
EN-6109	Hybrid Control Systems
EN-6110	Recursive Estimation
EN-6111	Stochastic Estimation and Control-I
EN-6112	Stochastic Estimation and Control-II
EN-6100	Research Thesis
Biomedical Systems	
EN-6201	Identification and Parameter Estimation for Physiological Systems
EN-6202	Bioinformatics and Bio-signal Processing
EN-6203	Analysis and Qualification of Medical Images
EN-6204	Computational Modeling of Physiological Systems
EN-6205	Methods of Computational Neuroscience
EN-6206	Advanced Biomedical Imaging
EN-6207	Analog Electronics in Biomedical Instrumentation
EN-6208	Advanced Topics in Biomedical Engineering
EN-6200	Research Thesis
Electronic System Design	
EN-6301	Compound Semiconductor Devices
EN-6302	Logic and Quantum Devices
EN-6303	Low-Power and Thermal Modeling Methodology
EN-6304	MEMS Design and Micro-machining
EN-6305	MEMS Sensors and Actuators

EN-6306	Optoelectronic Devices
EN-6307	Organic Electronic Devices
EN-6308	Semiconductor Material Characterization
EN-6309	IC Fabrication Processes
EN-6310	Special Topics in Electronics System Design
EN-6300	Research Thesis
Signal Processing	
EN-6401	Digital Signal Processing Applications
EN-6402	Advanced Digital Signal Processing
EN-6403	Estimation Theory
EN-6404	Detection Theory
EN-6405	Adaptive Filters
EN-6406	Modelling and Optimum Filters
EN-6407	Recursive Estimation and Optimal Filtering
EN-6400	Research Thesis