



Sultan Qaboos University

Academic Degree and Degree Plan of Postgraduate Studies Program

College	Engineering		
Department	Electrical and Computer Engineering	Degree	Master of Science
Program- Major	Electrical and Computer Engineering	Cohort	2020
Specialization	Electronic Instrumentation & Control	Mode of Study	☐ Full time ☐ Part time ☒ Both

Credit Required for Graduation	30	
Core Courses	Thesis	Elective Courses
9	6	15

Program Option		
☒ Courses and thesis	☐ Thesis Only	☐ Courses Only
☐ Courses & Examination		

Core Courses		
Course Code	Course Title	Credits
ECCE6400	Optimization Techniques in Engineering	3
ECCE6132	Linear System Theory	3
ECCE6315	Power System Analysis	3
ECCE6316	Power System Stability and Control	3
ECCE6122	Digital Signal Processing	3
ECCE6124	Digital Transmission	3
ECCE6261	Advanced Modeling and Simulation	3
ECCE6242	Advanced Computer Networks	3
ENGR6911	Advanced Engineering Management	3
ENGR6913	Advanced Engineering Mathematics	3
Total		9

Elective Courses		
ECCE6450	Advanced Robot Manipulation	3
ECCE6424	Computer Control of Dynamic Systems	3
ECCE6440	Intelligent Sensor Systems	3
ECCE6431	Control of Electrical Drives	3
ECCE6430	Advanced Power Electronics	3
ECCE6423	Optimal Control Systems	3
ECCE6492	Special Topics in Control	3
ECCE6325	Integrated Resource Planning for Electric Utilities	3
ECCE6346	High Voltage Technology	3
ECCE6355	Distributed Generation	3
ECCE6367	New Trends in Electrical Machines Technology	3
ECCE6150	Microwave Remote Sensing	3
ECCE6127	Information Theory and Coding	3
ECCE6128	Antenna Theory and Design	3
ECCE6133	Optical communication Systems	3
ECCE6162	Radio wave Propagation and Radio Spectrum Management	3
ECCE6232	Advanced Computer Architecture	3
ECCE6244	Network Analysis: Theory and Applications	3
ECCE6275	Neural Networks and Intelligent System	3
ECCE6161	High Speed Digital Design	3
ECCE6282	Advanced Network Security	3
ECCE6284	Reliability and Fault-Tolerant Systems	3
ECCE6250	Digital Image Processing	3
ECCE6262	Real Time Systems	3
ECCE6510	Advanced Spectral Analysis for Biomedical Signals	3
ECCE6213	Directed Studies	3
ENGR6910	Advanced Engineering Probability & Statistics	3
ENGR6920	Renewable Energy Systems	3
ECCE6425	Nonlinear systems and Engineering Applications	3
ECCE6426	Modelling and Control of Renewable energy systems	3
ECCE6317	Economic Operations of Power Systems	3
ECCE6318	Power System Operation and Control	3
ECCE6319	Microgrids and Smart Grid	3
ECCE6320	Advanced Power Systems Protection	3
Total		15
Thesis		
Course Code	Course Title	Credits
ECCE7001	Master Thesis	6
Total		6

Approval and Signatures		
Program Coordinator:	Head of Department:	Assistant Dean for Postgraduate Studies and Research:
Dr. Mostefa Mesbah	Dr. Mohammed Al-Badi	Dr. Nasser Al-Azri

Note: - New courses can be added.

- Please seal all pages when adding new pages.