SELF - ASSESSMENT REPORT FOR AUN-QA

HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY AND EDUCATION
FACULTY OF ELECTRICAL AND ELECTRONICS ENGINEERING

HCMUTE

BACHELOR OF ENGINEERING

IN ELECTRONICS COMMUNICATION ENGINEERING TECHNOLOGY

AUN-QA
A Touch of Quality

The XY[th] AUN Quality Assessment at Programme Level
November 07 - 09, 2017

Objectives:

PEO-01	Excel in their engineering careers and/or postgraduate education by utilizing the fundamental mathematical, scientific, and engineering technology principles in formulating and solving electronics and communication engineering problems
PEO-02	Communicate and work effectively in multidisciplinary teams and continue career-long professional development through engagement in lifelong learning
PEO-03	Fulfill the needs of society in solving technical problems using engineering principles, tools and practices, in an ethical and professional manner
PEO-04	Make technical contributions to design, development, and manufacturing in their practice of electronics and communication engineering technology

Expected Learning Outcomes:

ELO-01	An ability to apply knowledge of mathematics, science, computer fundamentals, and engineering
ELO-02	An ability to identify, formulate and solve engineering problems and to design a system, component, or process to meet desired needs
ELO-03	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
ELO-04	An ability to apply written, oral, and graphical communication in both technical and non-technical environments
ELO-05	An ability to communicate in English
ELO-06	An ability to work effectively as a member and leader in teams, preferably in a multi-disciplinary setting
ELO-07	A recognition of the need for continuous learning, and an ability to engage in life-long learning
ELO-08	An ability to understand the tenants of professional codes of ethics and to apply ethical considerations to realistic problems
ELO-09	Recognize the importance of the global, economic, environmental and societal context in engineering practice
ELO-10	An ability to conduct standard tests and measurements, and to conduct, analyze, and interpret experiments related to electronics and communication engineering technology
ELO-11	Demonstrate the application of circuit analysis and design, computer programming, associated software, analog and digital electronics, and microcomputers, and engineering technology standards to the building, testing, operation, and maintenance of electronics/ communication systems

A3. Mapping of courses to programme outcomes

A3.1: Mapping of ELOs to PEOs

PLOs \ ELOs			Student Expected Learning Outcomes										
			ELO-01	ELO-02	ELO-03	ELO-04	ELO-05	ELO-06	ELO-07	ELO-08	ELO-09	ELO-10	ELO-11
Programme Education Objectives		PEO-01	x	x	x								
		PEO-02				x	x	x	x				
		PEO-03								x	x		
		PEO-04										x	x

A3.2: Skill matrix of courses

Type	Course Prefix	Course Title	Student Expected Learning Outcomes										
			1	2	3	4	5	6	7	8	9	10	11
General knowledge													
Compulsory Courses													
LEC	LLCT150	Basic Principles of Marxist-									H		
LEC	LLCT120	Ho Chi Minh's Theory									H		
LEC	LLCT230	VN Communist Party Policy of									H		
LEC	GELA220	General Law								H	H		
OTH	CPRL130	C Programming Language	H	M	H				M				
LEC	ENGL130	English 1					H						
LEC	ENGL230	English 2					H						
LEC	ENGL330	English 3					H						
LEC	MATH13	Advanced Mathematics 1	H										
LEC	MATH13	Advanced Mathematics 2	H										
LEC	MATH13	Advanced Mathematics 3	H										
LEC	MATH13	Applied Statistics Probability	H										
LEC	PHYS130	General Physics A1	H										
LEC	PHYS120	General Physics A2	H										
LAB	PHYS110	Physics Experiment	M								H		
LEC	MATH12	Complex Variables and Laplace	H										
LEC	GCHE130	General Chemistry A1	H										
Free electives													
LEC	GEEC220	General Economics									H		
LEC	PLSK320	Planning Skill							H				
LEC	INMA220	Introduction to Management									H		
LEC	INSO321	Introduction to Sociology									H		
LEC	IQMA220	Introduction to Quality									H		
LEC	INLO220	Introduction to Logic							H				
LEC	PRSK320	Presentation Skills					H						
LEC	SYTH220	Systems Thinking			H								
LEC	ULTE121	University Learning Method							H				
LEC	IVNC320	Vietnamese Culture									H		
LEC	TDTS320	Technical Writing					H						
Electrical and Electronics Core													

Type	Code	Course												
OTH	INMA133	Introduction to ECET	M	M	M	M		M	M				L	L
LEC	ELCI1401	Electric Circuit	H	H	L				H					
LEC	BAEL340	Basic Electronics	H	H				M	H					
LEC	DIGI3301	Digital Systems	H	H				M	H					
LEC	EMIN330	Electrical measurement and	H	M					M				M	
LEC	MICR330	Microprocessor	H	H				M	H					
LEC	ELSA320	Electrical Safety	H	M				L	H					
LAB	ELPR320	Electronics Lab	H	H				M	H					
LAB	PMEM31	Measurement Engineering Lab	H		H			M	L					M
LAB	PRDI3202	Digital Systems Lab	H	H	H			M	L					H
LAB	PRMI320	Microprocessor Lab	M	H	H			L	M					H
Electrical and Electronics Advanced Core														
LEC	SISY3301	Signals and Systems	H	M	L				M					
LEC	COEL330	Communication Electronics	H	M					M					
LEC	DACO43	Data communication	H	M					M					
LEC	DSPR431	Digital Signal Processing	H	H	M				M					L
DES	DSIC3305	Digital Systems Design w/HDL	H	M				M	M					
LEC	EMSY427	Embedded Systems	H	M	H				M					M
LAB	LDAT411	Data Communication Lab	M	M	H			H	M	H	L	H		M
LAB	PRDS320	Digital System Design with	M	H	H			M	M					H
LAB	ESPR427	Embedded Systems Lab	M	M	H			H	M	H	L	H		M
Integrated-Circuits and Communications Area														
Compulsory Courses														
LEC	ELFI2203	Electromagnetic Field	H						M					
LEC	MIEN330	Microwave Engineering	H	M					M					
LEC	COSY330	Communication Systems	H	M	L				M					
LEC	AWPR33	Antennas and Propagation	H	M	L				M					M
LEC	WCSY43	Wireless Communication	H	M	M				M					M
LEC	DICD436	Digital Integrated Circuits Design	H	M	M				M				L	H
LAB	LDSP412	Digital Signal Processing Lab	M	M	H	M	M	H	M	H	L	H		M
LAB	COSL420	Communication Systems Lab	M	M	H	M	M	H	M	H	L	H		M
LAB	WCSL422	Wireless Communication	M	M	H	M	M	H	M	H	L	H		M
OTH	PRTE411	Project 1	H	H	H	H	M	H	H	H	M	H		H
OTH	PRTE411	Project 2	H	H	H	H	M	H	H	H	H	H		H
Elective Courses														
LEC	MOCO43	Mobile Communication	H	M	M				M				L	H
LEC	MICI4319	Microwave Circuits	H	M	M				M				L	H
LEC	FOCO432	Optical Communication	H	M	M				M				L	H
LEC	INTH422	Information Theory	H	M	H				M				L	H
LEC	DICO432	Digital Communication	H	M	M				M				L	H
LEC	IMPR432	Image Processing	H	M	M				M				L	H
LEC	AUVI321	Audio and Video Engineering	H	M	M				M				L	H
LEC	TETM423 164	Advanced Topics in Communication	H	M	M				M				L	H
LEC	ITFA4360	IoTs: Foundations and	H	M	M				M				L	H
LEC	AICD433	Analog Integrated Circuit Design	H	M	M				M				L	H
DES	CONE337	Computer and Communication	H	M	M				M				L	H
Industrial Electronics Area Core														
Compulsory Courses														
LEC	POEL330	Power Electronics	H	H				M		H				

Type	Code	Name											
LEC	ACSY330	Automatic Control Systems	H	H			L		L				
LEC	ELEQ220	Electrical Equipment	H	H			M		H				
LEC	PLCS330	Programmable Logic Controller	H	H			M	M	H				
LEC	ELPS330	Electrical power supply	H	H			L		M				
LEC	IMPR432	Image Processing	H	H			M	M	H				
LAB	ELPR210	Electric Lab	H	H	H				M	L			
LAB	POEP320	Power Electronics Lab	M	H	H		L						H
LAB	PPLC321	Programmable Logic Controller	M	H	H		M						H
OTH	ELPR310	Project 1	H	H	H	H	M	H	H	H	M	H	H
OTH	ELPR310	Project 2	H	H	H	H	M	H	H	H	H	H	H
Elective Courses													
LEC	RFID3213	RFID Technology	H	M	M				M			L	H
LEC	ADMI320	Advanced Microprocessor	H	M	M				M			L	H
LEC	INCO321	Intelligent control	H	M	M				M			L	H
LEC	SCDA420	SCADA System	H	M				H	M				H
LEC	IDMA322	Industry management	H	M	M				M			L	H
LEC	NANO32	Nano Technology	H	M	M				M			L	H
LEC	PLCN422	Industrial Communication	H	M	M				M			L	H
LEC	NETT321	Research in Modern Electronics	H	M	M				M			L	H
LEC	ELDA323	Electric Drive and Application	H	M	M				M			L	H
LEC	AUVI321	Audio and Video Engineering	H	M	M				M			L	H
LEC	MALE33	Machine Learning	H	M	M				M			L	H
LEC	BISI3318	Bio-Signal and -Image Processing	H	M	M				M			L	H
LEC	SETE331	Sensor Technology	H	M	M				M			L	H
Thesis													
OTH	GRPR423	Internship (ICET)	M	L	H	H	H	H	H	H	H	H	L
OTH	GRPR403	Thesis (ICET)	H	H	H	H	H	H	H	H	H	H	H
OTH	GRPR324	Internship (IEET)	M	L	H	H	H	H	H	H	H	H	L
OTH	GRAD40	Thesis (IEET)	H	H	H	H	H	H	H	H	H	H	H
Number of courses contributing strongly to each programme outcome			67	25	23	10	07	14	21	14	15	14	36

Legend	LEC -Lecture course	H- High contribution
	LAB - Laboratory course	**M- Medium Contribution**
	DES - Design course	**L- Low contribution**
	OTH - Other	

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