K.L.N. COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Course Outcomes, PO & PSO Mapping – Regulation 2013

ANNA UNIVERSITY, CHENNAI - AFFILIATED INSTITUTIONS

B. E. ELECTRONICS AND COMMUNICATION ENGINEERING

I TO VIII SEMESTERS CURRICULUM

Year	Course Name	Course	Attainment Level of Program Outcome											
HS6151		Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
	HS6151 Technical English – I	C101	-	1	-	-	-	-	1	-	2	2	-	1
	MA6151 Mathematics - I	C102	2	2	-	-	2	-	-	-	-	-	-	1
	PH6151 Engineering Physics– I	C103	2	2	-	-	-	-	-	-	-	-	-	1
	CY6151 Engineering Chemistry-I	C104	2	2	-	-	-	-	-	-	-	-	-	1
	GE6151 Computer Programming	C105	2	3	-	-	1	-	-	-	-	-	-	1
	GE6152 Engineering Graphics	C106	1	2	-	-	-	1	-	-	-	1	-	-
I	GE6161 Computer Practices Laboratory	C107	1	3	-	-	-	-	-	-	1	-	-	1
	GE6162 Engineering Practices Laboratory	C108	1	1	1	-	1	-	-	-	1	-	-	1
	GE6163 Physics and Chemistry Laboratory - I	C109	3	1	-	-	-	-	-	-	-	-	-	-
	HS6251 Technical English – II	C110	-	1	-	-	-	-	1	-	2	2	-	1
	MA6251 Mathematics–II	C111	2	-	-	2	-	-	-	-	2	-	-	1
	PH6251 Engineering Physics-II	C112	2	2	-	-	-	-	-	-	-	-	-	1
	CY6251 Engineering Chemistry – II	C113	2	2	-	-	-	-	-	-	-	-	-	1

	Course Name	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
	EC6201 Electronic Devices	C114	3	2	2	1	-	2	1	1	-	-	-	1
	EE6201 Circuit Theory	C115	3	2	1	1	1	-	-	-	-	-	-	-
	GE6262 Physics and Chemistry Laboratory - II	C116	3	-	-	-	-	-	-	-	-	-	-	-
	EC6211 Circuits and Devices Laboratory	C117	3	1	2	-	1	1	-	-	2	-	-	-
	MA6351 Transforms and Partial Differential Equations	C201	2	2	-	1	-	-	-	-	-	-	-	-
	EE6352 Electrical Engineering and Instrumentation	C202	1	3	-	-	-	1	1	-	-	-	-	1
	EC6301 Object Oriented Programming and Data Structures	C203	3	2	2	2	-	1	1	1	-	-	-	-
	EC6302 Digital Electronics	C204	3	2	2	2	1	1	1	1	-	-	1	-
II	EC6303 Signals and Systems	C205	3	2	2	2	2	1	1	1	1	-	1	1
	EC6304 Electronic Circuits-I	C206	3	2	2	3	2	1	1	1	1	-	1	1
	EC6311 Analog and Digital Circuits Laboratory	C207	3	2	2	3	1	1	2	1	2	-	2	-
	EC6312 OOPS and Data Structures Laboratory	C208	3	2	2	3	-	1	1	1	1	1	-	-
	Course Name	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
	MA6451 Probability and Random Processes	C209	3	3	3	-	-	-	-	-	-	-	-	-

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	EC6401 Electronic Circuits - II	C210	3	2	2	3	2	1	1	1	1	1	1	1
	EC6402 Communication Theory	C211	3	3	3	1	-	1	1	2	1	-	-	1
	EC6403 Electromagnetic Fields	C212	3	3	1	-	-	1	1	1	2	-	-	-
	EC6404 Linear Integrated Circuits	C213	3	2	2	2	2	1	1	1	1	-	1	1
	EC6405 Control System Engineering	C214	3	3	1	-	1	1	1	1	1	-	-	-
	EC6411 Circuit and Simulation Integrated Laboratory	C215	3	3	2	3	2	1	2	1	1	-	-	1
	EC6412 Linear Integrated Circuits Laboratory	C216	3	2	3	3	2	1	1	1	1	-	1	1
	EE6461 Electrical Engineering and Control System Laboratory	C217	1	-	-	2	-	-	-	3	-	-	-	-
	EC6501 Digital Communication	C301	3	3	2	1	-	1	1	1	1	-	-	1
	EC6502 Principle of Digital Signal Processing	C302	3	2	1	1	-	1	1	1	1	-	-	-
III	EC6503 Transmission Lines and Wave Guides	C303	2	2	1	1	-	2	2	2	1	-	2	2
	Course Name	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
	GE6351 Environmental Science and Engineering	C304	3	2	2	2	2	1	1	1	1	-	-	1
	EC6504 Microprocessor and Microcontroller	C305	3	2	1	1	1	1	1	-	1	-	-	1
	EC6511	C306	2	1	2	3	3	1	1	1	1	-	1	1

IV	EC6702 Optical Communication	C402	3	1	2	2	1	2	1	1	1	-	1	1
	EC6701 RF and Microwave Engineering	C401	2	2	2	2	1	2	2	1	-	1	1	2
	GE6674 Communication and Soft Skills Laboratory	C317	-	-	-	-	-	1	3	-	-	-	1	-
	Course Name	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
	EC6612 VLSI Design Laboratory	C316	3	3	1	1	-	1	1	1	-	1	1	1
	EC6611 Computer Networks Laboratory	C315	2	2	2	2	2	1	1	1	2	-	-	1
	EC6001 Medical Electronics	C3E1	3	1	2	-	-	2	1	-	-	-	-	1
	EC6602 Antenna and Wave Propagation	C313	3	3	3	3	3	2	1	1	1	-	-	1
	EC6601 VLSI Design	C312	2	3	2	-	3	2	1	1	1	-	1	1
	CS6551 Computer Networks	C311	1	2	2	1	2	1	1	-	-	-	-	-
	CS6303 Computer Architecture	C310	1	1	2	-	-	2	1	1	-	-	-	1
	MG6851 Principles of Management	C309	1	1	2	1	1	2	1	3	2	2	3	1
	EC6513 Microprocessor and Microcontroller Laboratory	C308	3	3	1	3	3	1	1	1	1	-	1	1
	EC6512 Communication Systems Laboratory	C307	3	3	3	3	1	1	1	2	2	-	-	1
	Digital Signal Processing Laboratory													

EC6703 Embedded and Real Time Systems	C403	2	2	3	2	1	1	2	1	-	1	1	2
IT6005 Digital Image Processing	C4E1	3	3	3	1	1	-	1	-	1	-	1	1
EC6009 Advanced Computer Architecture	C4E2	3	2	1	1	1	1	1	-	1	-	-	1
EC6013 Advanced Microprocessor and Microcontrolle		3	2	1	1	1	1	1	-	1	-	-	1
EC6711 Embedded Laboratory	C407	3	3	1	2	_	2	1	1	-	1	1	1
EC6712 Optical and Microwave Laboratory	C408	3	2	1	2	-	1	1	1	2	-	1	-
EC6801 Wireless Communication	C409	3	2	1	1	1	1	1	-	-	-	1	-
EC6802 Wireless Networks	C410	3	3	3	2	1	1	1	-	1	-	-	1
GE6075 Professional Ethics in Engineering	C4E4	1	1	3	1	-	3	3	3	-	3	-	1
Course Name	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
GE6751 Total Quality Management	C4E5	2	2	1	-	-	2	1	1	-	-	-	1
EC6811 Project Work	C4P1	2	2	1	2	2	2	2	1	1	1	2	2

Program level Course-PSO matrix of all courses INCLUDING first year courses Mapping of Courses (Anna University Regulation 2013) and PSOs

Year	Course Name	Course	Program Specific Outcomes					
1 ear	Course Ivame	Code	PSO1	PSO2	PSO3			
I	HS6151 Technical English – I	C101	-	-	1			
	MA6151	C102	1	1	-			

EC6211 Circuits and Devices Laboratory	C117	2	1	-
Course Name	Course Code	PSO1	PSO2	PSO3
GE6262 Physics and Chemistry Laboratory - II	C116	1	-	-
EE6201 Circuit Theory	C115	2	-	-
EC6201 Electronic Devices	C114	2	-	-
CY6251 Engineering Chemistry – II	C113	1	-	-
PH6251 Engineering Physics-II	C112	1	-	-
MA6251 Mathematics–II	C111	1	-	1
HS6251 Technical English – II	C110	-	-	1
GE6163 Physics and Chemistry Laboratory - I	C109	1	-	-
GE6162 Engineering Practices Laboratory	C108	1	-	-
GE6161 Computer Practices Laboratory	C107	1	-	-
GE6152 Engineering Graphics	C106	1	-	-
GE6151 Computer Programming	C105	1	-	-
CY6151 Engineering Chemistry-I	C104	1	-	-
PH6151 Engineering Physics– I	C103	1	-	-
Mathematics - I				

	EC6405 Control System Engineering	C214	2	1	-
	EC6404 Linear Integrated Circuits	C213	2	1	1
	EC6403 Electromagnetic Fields	C212	2	1	1
	Course Name	Course Code	PSO1	PSO2	PSO3
	EC6402 Communication Theory	C211	3	1	1
	EC6401 Electronic Circuits - II	C210	3	1	1
	MA6451 Probability and Random Processes	C209	1	-	-
11	EC6312 OOPS and Data Structures Laboratory	C208	3	1	1
II	EC6311 Analog and Digital Circuits Laboratory	C207	3	1	1
	EC6304 Electronic Circuits-I	C206	3	1	1
	EC6303 Signals and Systems	C205	2	1	1
	EC6302 Digital Electronics	C204	2	1	-
	EC6301 Object Oriented Programming and Data Structures	C203	2	1	-
	EE6352 Electrical Engineering and Instrumentation	C202	1	1	-
	MA6351 Transforms and Partial Differential Equations	C201	1	-	-

	EC6411 Circuit and Simulation Integrated Laboratory	C215	3	2	1
	EC6412 Linear Integrated Circuits Laboratory	C216	3	1	1
	EE6461 Electrical Engineering and Control System Laboratory	C217	1	-	1
	EC6501 Digital Communication	C301	2	1	1
	EC6502 Principle of Digital Signal Processing	C302	2	1	-
	EC6503 Transmission Lines and Wave Guides	C303	2	1	1
	GE6351 Environmental Science and Engineering	C304	2	1	1
III	EC6504 Microprocessor and Microcontroller	C305	2	1	-
	Course Name	Course Code	PSO1	PSO2	PSO3
	EC6511 Digital Signal Processing Laboratory	C306	2	2	1
	EC6512 Communication Systems Laboratory	C307	3	1	1
	EC6513 Microprocessor and Microcontroller Laboratory	C308	3	2	1
	MG6851 Principles of	C309	1	1	2

	Management				
	CS6303				
	Computer	C310	1	1	-
	Architecture				
	CS6551				
	Computer	C311	2	1	-
	Networks				
	EC6601	C312	2	2	1
	VLSI Design	0312	2		1
	EC6602				
	Antenna	C313	3	2	1
	and Wave	6313	3	2	-
	Propagation				
	EC6001				
	Medical	C3E1	2	1	-
	Electronics				
	EC6611				
	Computer Networks	C315	2	2	1
	Laboratory				
	EC6612				
	VLSI Design	C316	2	2	1
	Laboratory	0000	_	_	_
	GE6674				
	Communication	C317	1	2	1
	and Soft Skills	C317	1	2	1
	Laboratory				
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	EC6701				
	EC6701 RF and	C401	2	2	1
	EC6701 RF and Microwave	C401	2	2	1
	EC6701 RF and Microwave Engineering				
	EC6701 RF and Microwave	C401 Course Code	2 PSO1	2 PSO2	1 PSO3
	EC6701 RF and Microwave Engineering Course Name EC6702	Course			
	EC6701 RF and Microwave Engineering Course Name EC6702 Optical	Course Code	PSO1	PSO2	PSO3
	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication	Course			
	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks	Course Code	PSO1	PSO2	PSO3
	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703	Course Code	PSO1	PSO2	PSO3
	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and	Course Code	PSO1	PSO2	PSO3
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time	Course Code C402	PSO1 2	PSO2	PSO3
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time Systems	Course Code C402	PSO1 2	PSO2	PSO3
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time Systems IT6005	Course Code C402	PSO1 2	PSO2	PSO3
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time Systems	Course Code C402	PSO1 2	PSO2 1	PSO3 1
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time Systems IT6005 Digital Image	Course Code C402	PSO1 2	PSO2 1	PSO3 1
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time Systems IT6005 Digital Image Processing EC6009 Advanced	Course Code C402 C403	2 2 2	PSO2 1 1	PSO3 1
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time Systems IT6005 Digital Image Processing EC6009 Advanced Computer	Course Code C402	PSO1 2	PSO2 1	PSO3 1
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time Systems IT6005 Digital Image Processing EC6009 Advanced Computer Architecture	Course Code C402 C403	2 2 2	PSO2 1 1	PSO3 1
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time Systems IT6005 Digital Image Processing EC6009 Advanced Computer Architecture EC6013	Course Code C402 C403	2 2 2	PSO2 1 1	PSO3 1
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time Systems IT6005 Digital Image Processing EC6009 Advanced Computer Architecture EC6013 Advanced	Course Code C402 C403 C4E1	2 2 2	PSO2 1 1 1	PSO3 1
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time Systems IT6005 Digital Image Processing EC6009 Advanced Computer Architecture EC6013 Advanced Microprocessor	Course Code C402 C403	2 2 2	PSO2 1 1	PSO3 1
IV	EC6701 RF and Microwave Engineering Course Name EC6702 Optical Communication and Networks EC6703 Embedded and Real Time Systems IT6005 Digital Image Processing EC6009 Advanced Computer Architecture EC6013 Advanced	Course Code C402 C403 C4E1	2 2 2	PSO2 1 1 1	PSO3 1

EC6711 Embedded Laboratory	C407	2	1	1
EC6712 Optical and Microwave Laboratory	C408	2	1	1
EC6801 Wireless Communication	C409	2	1	-
EC6802 Wireless Networks	C410	3	1	-
GE6075 Professional Ethics in Engineering	C4E4	2	2	1
GE6751 Total Quality Management	C4E5	1	1	-
EC6811 Project Work	C4P1	2	2	1