



**WALJAT COLLEGE OF APPLIED
SCIENCES**
In academic partnership with
BIRLA INSTITUTE OF TECHNOLOGY



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

PROGRAMME STRUCTURE APPLICABLE FROM 2015

Subject Code	Subject Title	Credits
Semester I		
HU1101	Technical English	3
PH1201	Physics	4
MA1201	Engineering Mathematics	4
EE2201	Principles of Electrical Engineering	4
CH1401	Engineering Chemistry	3
ME1202	Engineering Graphics	3
CS1302	Fundamental of Unix & C Programming	3
PE1202	Workshop Practice	2
PH1202	Physics Lab	2
GA1002/GA1004/ GA1006/GA1008	NCC/NSS/ PT & Games/ Creative Art	1
Sub-Total		29
Semester II		
EC2001	Principles of Electronics Engineering	3
MA2201	Advance Engineering Mathematics	4
CH2303	Environmental Science	3
CS2301	Fundamental of Data Structure	4
ME2001	Principles of Mechanical Engineering	3
AM1201	Engineering Mechanics	4
CH1402	Chemistry Lab	2
EE3202	Basic Electrical Engineering Lab	2
EC2002	Basic Electronics Engineering Lab	2
CS2302	Data Structure Lab	2
GA2002/GA2004 GA2006/GA2008	NCC/NSS/ PT & Games/Creative Art	1
Sub-Total		30
First Year Total Credit		59

Semester III		
EC3201	Digital Electronics	4
EC3203	Modern Instruments and Measurements	3
EC3205	Semiconductor Devices	3
EE 3205	Network Theory	4
BT3001/ HU4001/HU4002	Biological Science/Language(German/French)	3
EC3202	Digital Electronics Lab	2
EC3204	Modern Instruments and Measurements Lab	2
AM2202	Engineering Mechanics Lab	2
GA3002/GA3004	NCC/ NSS/	1
GA3006/GA3008	PT & Games/ Creative Art	
Sub-Total		24
Semester IV		
EC4201	VLSI Design	3
EC4203	Analog Communication System	4
EC4205	Microprocessor and Microcontroller	3
EC4207	Electromagnetic Theory	3
HU4001/	Biological science/	3
BT3001	Language(German/French)	
EC4202	VLSI Design Lab	2
EC4204	Analog Communication Lab	2
EC4206	Microprocessor and Microcontroller Lab	2
GA4002/GA4004	NCC/NSS/	1
GA4006/GA4008	PT & Games/Creative Art	
Sub-Total		23
Second Year Total Credit		47
Total Credit for the Award of Diploma (Electronics & Communication) Engineering Certificate		106
Semester V		
EC5201	Digital Communication system	3
EC5203	Microwave Engineering	3
EC5205	Data Communication	3
EE4207	Digital Signal Processing	4
Breadth Elective V		3
EC5202	Digital Communication Lab	2
EC5204	Microwave Lab	2

EE4208	Digital Signal Processing Lab	2
Sub-Total		22
Semester VI		
EC6201	Intelligent Instrumentation	3
EC6203	Fiber Optics Communication system	3
EC6205	Computer Networking	3
EE6201	Control Theory	3
Breadth Elective VI		3
EC6202	Industrial Instrumentation Lab	2
EC6204	Fiber Optics Communication Lab	2
EC6206	Wireless Communication & Networking Lab	2
Sub-Total		21
Third Year Total Credit		43
Total Credit for the Award of Advance Diploma (Electronics & Communication) Engineering Certificate		149
Semester VII		
EC 7201	Mobile and Cellular Communication	3
EC7203	Antennas and Propagation for Wireless Communication	3
Elective I		3
Elective II		3
Breadth Elective VII		3
EC7202	Advanced Comm. Lab/	2
EC7204	Embedded System Lab.	2
EC7206	Project	4
Sub-Total		21
List of Elective I		
EC7205	Telecommunication Switching Systems & Networks	3
MEC1011	Probability Models & Stochastic Processes	3
MEC1019	Microelectronic Devices and Circuits	3
MEC1047	Sensors and Transducers	3
MEC1149	Applied Bioelectronics Instrumentation	3
MEC2113	Real Time Embedded System Design	3
CS 7107	Digital Image Processing	3
List of Elective II		

EC7207	Satellite Communication System	3
EC7209	Digital Video Signal Coding	3
MEC1125	Information Theory and Coding	3
MEC2015	Optical Networking and DWDM	3
MEC2019	Micro-Electro Mechanical System	3
CS 8111	Natural Language Processing	3
CS 8121	Pattern Recognition	3
Semester VIII		
EC8202	Project & Comprehensive Viva	6
	Elective III	3
Sub-Total		9
Fourth Year Total Credit		30
Total Credit for the Award of Degree BE-(Electronics & Communication) Engineering		179
List of Elective III		
EC8201	Digital Signal Processing Architecture	3
MEC1137	Radar Signal Analysis	3
MEC 2075	Multi-Dimensional Signal Processing	3
MEC2163	Speech Processing and Recognition	3
EC8203	Neural Networks and Fuzzy System	3
MEC 2067	VHDL & Verilog	3
MEC2137	Wireless Networks	3
List of Breadth Elective V		
MSH 1131	Principles of Management	3
MSH 1125	Organisation Behavior	3
MSH 1113	Environmental Psychology	3
PE 5021	Industrial Organization and Management for Oman	3
PE 5011	Project Engineering	3
List of Breadth Elective VI		
MSH 1137	Economics	3
PE 6009	Engineering Economy	3
MSH1117	Financial Management	3
List of Breadth Elective VII		
MSH 1159	IPR in Oman	3

MSH 1163	Entrepreneurship and Small Business Management in Oman	3
MSH 1161	Business Ethics in Oman	3