Waljat College of Applied Sciences
(In academic partnership with BIT)

BACHELOR OF ENGINEERING (ELECTRONICS AND COMMUN ICATION)
COURSE STRUCTURE

SEMESTER I

SUBJECT CODE	SUBJECT NAME	UNIT	PERIODS/WEEK
HU1101	Technical English	1.0	3
PH1101	Physics I	1.0	3
CH1301	Engineering Chemistry	1.0	3
MA1101	Mathematics I	1.0	3
ME1101	Engineering Mechanics	1.0	3
ME1102	Engineering Graphics	1.0	3
CS1202	Unix & C Programming	1.0	3
CH1202	Chemistry Lab	0.5	3
PE1102	Work Shop Practice – I	0.5	3
GA1002	Creative Arts	0.5	3

SEMESTER II

SUBJECT CODE	SUBJECT NAME	UNIT	PERIODS/WEEK
MA2101	Mathematics II	1.0	3
EE2101	Basic Electrical Engineering	1.0	3
CS2201	Data Structure	1.0	3
CH2203	Environmental Science	1.0	3
PH2103	Physics II	1.0	3
ME2102	Computer Aided Drafting	1.0	3
PH1102	Physics Lab	0.5	3
ME2104	Engg. Mechanics Lab	0.5	3
CS2102	Data Structure Lab.	0.5	3
PE2102	Workshop Practice II	0.5	3
GA2002	Creative Arts	0.5	3

SEMESTER III

SUBJECT CODE	SUBJECT NAME	UNIT	PERIODS/WEEK
EC3101	Basic Electronics	1.0	3
EC4101	Digital Electronics	1.0	3
EC4107	Semiconductor Devices	1.0	3
EC4111	Analogue Communication Systems	1.0	3
EC3103	Electronics Instruments & Measurement	1.0	3
ME3207	Principle of Mechanical Engg.	1.0	3
EC3102	Basic Electronics Lab.	0.5	3

EE3102	Basic Electrical Engg Lab	0.5	3
EC4102	Digital Electronics Lab.	0.5	3
EC3104	Electronics Instruments & Measurement Lab	0.5	3
EC4112	Analogue Communication Lab	0.5	3

SEMESTER IV

SUBJECT CODE	SUBJECT NAME	UNIT	PERIODS/WEEK
EC4105	Discrete & Integrated Analogue Circuits	1.0	3
EC5101	Microprocessor & Interfacing	1.0	3
EC5103	Electromagnetic Theory	1.0	3
EC5105	Digital Communication System	1.0	3
EE5109	Principles of Electrical Machine	1.0	3
EC6101	Industrial Electronics	1.0	3
EC6102	Instrumentation Lab	0.5	3
EC4106	Discrete & Integrated Analogue Circuits Lab.	0.5	3
EC5102	Microprocessor Application Lab	0.5	3
EC5106	Digital Communication Lab.	0.5	3
GA3002	Creative Arts	0.5	3

SEMESTER V

SUBJECT CODE	SUBJECT NAME	UNIT	PERIODS/WEEK
EC7105	Microwave Engineering	1.0	3
EC8101	Intelligent Instrumentation	1.0	3
MA3101	Mathematics III	1.0	3
EE4105	Network Theory	1.0	3
EE3101	Introduction to System Theory	1.0	3
EC5107	Data Communication	1.0	3
CS4105	Data Base Management System (NC)	1.0	3
EC8102	Industrial Instrumentation Lab	0.5	3
CS4106	Data Base Management System Lab	0.5	3
EC7106	Microwave Lab.	0.5	3
GA4002	Creative Arts	0.5	3

SEMESTER VI

SUBJECT CODE	SUBJECT NAME	UNIT	PERIODS/WEEK
EC7101	Telecommunication Switching Circuits & Networks	1.0	3

EC6103	Computer Networking	1.0	3
EC6107	Fiber Optics Communication System	1.0	3
EC6111	VLSI Design	1.0	3
CP4107	Operating Systems	1.0	3
EE5107	Digital Signal Processing	1.0	3
EC7102	Wireless Communication & Networking Lab	0.5	3
EC6108	Fiber Optics Comm. Lab	0.5	3
EC6112	VLSI Design Lab	0.5	3
EE5108	Digital Signal Processing Lab	0.5	3

SEMESTER VII

SUBJECT CODE	SUBJECT NAME	UNIT	PERIODS/WEEK
EC7103	Antenna & Wave Propagation	1.0	3
PH3101	Material Science	1.0	3
EE6105	Linear Control Theory	1.0	3
EC7113	Mobile & Cellular Communication	1.0	3
	Elective-I	1.0	3
	Elective-II	1.0	3
PH3102	Material Science Lab	0.5	3
EE6106	Control Systems Lab.	0.5	3
EC7110	Project	1	3

ELECTIVES

SUBJECT CODE	SUBJECT NAME	UNIT	PERIODS/WEEK
EC7107	Fundamentals of Embedded System Design	1.0	3
EC7109	Bioelectronics Instrumentation	1.0	3
EC7111	Information and Coding Theory	1.0	3
EC7115	Microelectronics Engineering	1.0	3
EC7117	Artificial Intelligence & Expert Systems	1.0	3
EC7119	Stochastic and Random Processes	1.0	3
EC7121	Advanced Microprocessors	1.0	3
EE7117	Neural Network	1.0	3

SEMESTER VIII

SUBJECT CODE	SUBJECT NAME	UNIT	PERIODS/WEEK
EC8103	Digital Video Signal Coding	1.0	3
EC8105	Satellite Communication Systems	1.0	3
CS4103	Scientific Computing	1.0	3
MB8101	Principles of Management	1.0	3
	Elective-III	1.0	3

	Elective-IV	1.0	3
EC8104	Advanced Comm. Lab.	0.5	3
CS4104	Scientific Computing Lab.	0.5	3
EC8110	Project	1.0	3

ELECTIVES

SUBJECT CODE	SUBJECT NAME	UNIT	PERIODS/WEEK
EC8107	Radar Engineering	1.0	3
EC8109	Optical Networks	1.0	3
EC8111	VHDL & ASIC Tools	1.0	3
EC8113	Speech Processing	1.0	3
EC8117	Digital Signal Processing Architecture	1.0	3
EC8119	Introduction & Programming of Micro-controllers	1.0	3