SAVITRIBAI PHULE PUNE UNIVERSITY

EQUIVALENCE OF COURSES

IN

M.Sc. ELECTRONIC SCIENCE

(For colleges)

BOARD OF STUDIES, ELECTRONIC SCIENCE

UNDER

FACULTY OF SCIENCE AND TECHNOLOGY

M. Sc. Electronic Science Part 1

M. Sc. Electronic Science Part 2

M. Sc. Electronic Science Part 1

Equivalence of Courses and Transitory Provision

(2013-14 to 2019-20)

2013 Pattern (100 credits)			2019 Pattern (80 credits)		
Semester	Course code	Title of course/paper	Semester	Course code	Title of course/paper
I	EL1UT01	Mathematical Methods in Electronics and Network Analysis (4 Credits)	I	ELUT111	Mathematical methods in Electronics using C (4 Credits)
	EL1UT02	Analogue Circuit Design(4 Credits)		ELUT112	Analog Circuit Design (4 Credits)
	EL1UT03	Digital System Design (4 Credits)		ELUT113	Digital System Design (4 Credits)
	EL1UT04	Advanced 'C' Programming (3 Credits)		ELDT114 ELDT124	Fundamentals and applications of PIC microcontrollers Fundamentals and applications of AVR microcontrollers
	EL1UP01	Practical Course I (4 Credits)		ELDP114 ELDP124	Practical course for PIC and AVR -elective subjects (2 +2 Credits)
	EL1UP02	Practical Course II (4 Credits)		ELUP115	Compulsory Practical course (4 Credits)
	EL1UP03	Practical Course III (PLE) (2 Credits)			-------------

II	EL2UT05	Applied Electromagnetics, Microwaves and Antennas (4 Credits)	II	ELUT121	Applied Electromagnetic, microwaves and antenna (4 Credits)
	EL2UT06	Instrumentation and Measurement Techniques (4 Credits)		ELUT122	Instrumentation and measurement techniques (4 Credits)
	EL2UT07	Embedded System Design (4 Credits)			--------------------------
	EL2UT08	Foundation of Semiconductor Devices (3 Credits)		ELUT123	Foundation of semiconductor devices (4 Credits)
	EL2UP04	Practical Course IV (4 Credits)		ELDP124	Practical course for elective course from ELDT124(2 Credits)
	EL2UP05	Practical Course V (4 Credits)		ELUP125	Compulsory Practical Course(4 Credits)
	EL2UP06	Practical Course VI(PLE) (2 Credits)			

M. Sc. Electronic Science Part 2

Equivalence of Courses and Transitory Provision

(2014-15 to 2020-21)

2014 Pattern (100 credits)			2020 Pattern (80 credits)		
Semester	Course code	Title of course/paper	Semester	Course code	Title of course/paper
III	EL3UT09	Communication Electronics (4 Credits)	III	ELT231	Advanced communication systems (4 Credits)
	EL3DTxx	Elective Theory Course (4 Credits)		ELT232	Mechatronics and robotics (4 Credits)
	EL3DTxx	Elective Theory Course (4 Credits)		ELT233	Control Systems (4 Credits)
	EL3DTxx	Elective Theory course (3 Credits)		ELT234	Elective Courses (as listed below)
	EL3UP07	Practical Course VII (4 Credits)		ELP234	Practical course for elective subject from ELDT114 (2 Credits)
	EL3UP08	Practical Course VIII (4 Credits)		ELP235	Compulsory Practical course (4 Credits)
	EL3UP09	Practical Course IX(PLE) (2 Credits)			------------------
	EL4UT10	Control Systems (4 Credits)		*ELP241	Industrial Training (4 Credits)
	EL3DTxx	Elective Theory Course		ELT241	Elective Courses (as listed below)

IV		(4 Credits)	IV		
	EL2UP10	Practical Course X (Project) (10 Credits)		ELT244	Internships/Project (8 Credits)

Students can opt for electives as per following list

ELDT201 Advanced Power Electronics 4 4   --------------
ELDT02 Advanced Embedded Systems 4 4   Fundamentals of internet of things
ELDT03 Digital Signal Processing 4 4   Signals and systems
ELDT04 Mechatronics 4 4   Mechatronics and Robotics
ELDT05 Digital Image Processing 4 4   ------------------------
ELDT06 Optoelectronics and Fibre Optic Communication 4 4 Optical fiber commu
ELDT07 Nanoelectronics and Devices 4 4   Processes in device fabrication
ELDT08 Programmable Logic Controllers and Applications 3 3   PLC Programming and Applications (2 Programming and Application (2 Credits)

ELDT09 VLSI System Design 3 3   EDA tools
ELDT10 Robotics-Kinematics and Control 3 3   Mechatronics and robotics
ELDT11 Wireless Sensor Networks 3 3   Fundamentals of internet of things
ELDT12 Digital Communication 3 3   Wireless communication systems 1
ELDT13 Computational Methods for Electronics