SARDAR PATEL UNIVERSITY
Vallabh Vidyanagar, Gujarat
(Reaccredited with 'A' Grade by NAAC (CGPA 3.25)
Syllabus with effect from the Academic Year 2022-2023

PROGRAMME STRUCTURE
MSc (Electronics) Semester: III

Programme Outcome (PO) - For MSc Electronics Programme	PO.1 The course begins with the foundation concepts of core electronics allied fields PO.2 The curriculum is designed to train the students in basic and advanced areas of Electronics by Keeping in mind the latest advances in the field. PO.3 The purpose of this course is to inculcate skills that are relevant for industry and cater to the requirements of the R & D Department and Industry. PO.4 This M.Sc. Program enables student to develop Speaking Presentation skills, they are encouraged to deliver seminars on a wide range of topics covering the different areas of Electronics.
Programme Specific Outcome (PSO) - For MSc Electronics Semester	PSO.1 M.SC. (Electronics) Program aims to develop specialized knowledge and skills both in the field of electronics for industrial automation and of the design of electronics systems. PSO.2 This course focuses on concepts relating to the Fabrication & Operation of semiconductor devices, measurement methodologies and the characteristics of sensors and instrumentation, embedded systems, VLSI Technology, Integrated Circuit manufacturing techniques, Optical Fiber communication systems, Computer Hardware etc. PSO.3 The main objective is to develop the ability and skills to understand, manage and promote technological innovation while adapting to the rapid changes typical of high technology sectors.

To Pass	At least 40% Marks in the University Examination in each paper and 40% Marks in the aggregate of University and Internal examination in each course of Theory, Practical & 40% Marks in Viva-voce.

Course Type	Course Code	Name of Course	Theory/ Practical	Credit	Exam Duration in Hrs	Component of Marks		
						Internal	External	Total
CORE COURSE	**PS03CELE51**	**Principles of Control Systems**	**T**	**4**	**3**	**30**	**70**	**100**
	PS03CELE52	**Digital and Microwave Communication Systems**	**T**	**4**	**3**	**30**	**70**	**100**
	PS03CELE53	**Computer Hardware & Networking**	**T**	**4**	**3**	**30**	**70**	**100**
	PS03CELE54	**Practical**	**P**	**4**	**3**	**30**	**70**	**100**
	PS03CELE55	**Project Work**	**P**	**4**	**3**	**30**	**70**	**100**
	PS03CELE56	**Comprehensive Viva**	**=**	**1**	**=**	**=**	**50**	**50**

ELECTIVE COURSE (Any One)	**PS03EELE51**	**Thin Film Technology**	**T**	**4**	**3**	**30**	**70**	**100**
	PS03EELE52	**Digital Signal Processing**	**T**	**4**	**3**	**30**	**70**	**100**
	PS03EELE53	**ARM Programming and Embedded Communication Protocols**	**T**	**4**	**3**	**30**	**70**	**100**
			Total Credits :	**25**			**Total Marks:**	**650**

Course Type	Course Code	Name Of Course	Theory/ Practical	Credit	Exam Duration in hrs	Component of Marks		
						Internal Total	External Total	Total
Core Course	PS01CELE51	Semiconductor Science and Devices	T	4	3	30	70	100
	PS01CELE52	Applications of ICs And Fuzzy Electronics	T	4	3	30	70	100
	PS01CELE53	8 Bit Microcontroller and Applications	T	4	3	30	70	100
	PS01CELE54	Practical	P	4	3	30	70	100
	PS01CELE55	Project Work	P	4	3	30	70	100
	PS01CELE56	Comprehensive Viva	=	1	=	=	50	50
Elective Courses	PS01EELE51	Analytical and Bio Medical Instruments	T	4	3	30	70	100
	PS01EELE52	Network Analysis	T	4	3	30	70	100