



JSPM UNIVERSITY PUNE

Recognized by UGC u/s 2 (f) of UGC Act 1956 and enacted by the
State Government of Maharashtra - JSPM University Act, 2022 (Mah.IV of 2023)

JSPM University Pune
Faculty of Science and Technology
School of Electrical and Communication
Sciences



NEP aligned Curriculum Structure

For

M.Tech (VLSI & Embedded Systems)

(Effective from AY: 2025-26)



JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF ELECTRICAL AND COMMUNICATION SCIENCES

COURSE STRUCTURE (NEP 2020 Aligned)

W. E. F

2024-2025

RELEASE DATE

01/07/2025

REVISION NO.

1.0 (NEP)

MASTER OF TECHNOLOGY (VLSI AND EMBEDDED SYSTEMS)

SEMESTER I (LEVEL 6.5)

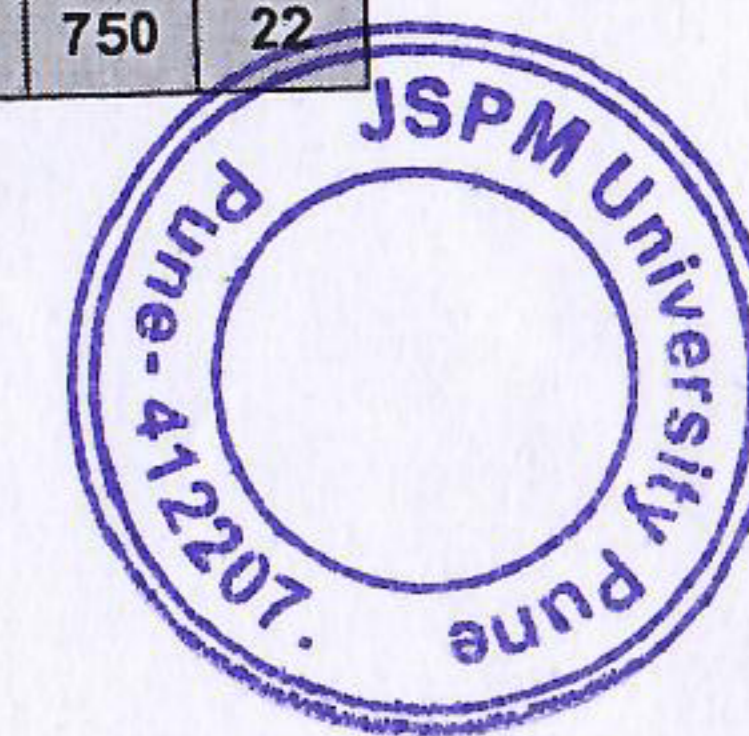
COURSE			TEACHING SCHEME				EXAMINATION SCHEME AND MARKS								TOTAL	CREDITS
TYPE	CODE	COURSE NAME	Hours / Week				THEORY (Equal Weightage for CIE and ESE)				PRACTICAL (Equal Weightage for CIE and ESE)		ORAL (Equal Weightage for CIE and ESE)			
			L	T	P	EL	CONTINUOUS INSEMESTER EVALUATION (100 Marks)			END SEMESTER EXAMINATION (100 / 50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)	END SEMESTER EXAMINATION (50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)	END SEMESTER EXAMINATION (50 Marks)		
							T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)							
PSMC	230GMAM02_01	Advanced Numerical Methods	2	1	-	-	30	30	40	100	-	-	-	-	100	3
PCC	231GETM01_01	Analog CMOS VLSI Design	2	-	-	-	30	30	40	50	-	-	-	-	50	2
PCC	230GETM02_01	Advanced Embedded System	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5
PCC	250GVEM01_01	VLSI Architecture	2	-	-	-	30	30	40	50	-	-	-	-	50	2
MMC	---	Multidisciplinary Minors Course	1	-	2	-	-	-	-	-	50	50	50	50	100	2
SEC	240GCSM05_01	Advanced Python Programming	2	-	2	-	-	-	-	-	50	50	50	50	100	3
VSC	230IDCB01_01	Design Thinking and Creativity	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5
AEC	231UENM01_01	Communicative English for Professionals	1	-	2	-	-	-	-	-	50	50	-	-	50	2
RMC	230IRMM01_01	Research Methodology	2	-	-	-	30	30	40	50	-	-	-	-	50	2
LC	230GETM21_01	Advanced Embedded System Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1
LC	250GVEM02_01	VLSI Architecture Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1
TOTAL			15	1	10	4									750	22

L-Lecture
Format No.: JSPMUni/ACAD/001

T-Tutorial
Rev. No.:1.0

P-Practical Session (Laboratory)
Rev. Date:01/07/2025

EL-Experiential Learning
Page 2 of 4



Sem.	Multidisciplinary Minors Course (MMC)			
I	Course Code	230GRAM24_01	230GCSM28_01	230GRAB51_01
	Course Name	Sensors and Automation	Introduction to Data Science	Robot Modeling
II	Course Code	250GCSM02_02	250GCSM01_02	230GRAB52_02
	Course Name	Cloud Computing and Services	Cyber Security Fundamentals	Autonomous Mobile Robot

Alisha

Dr. Alisha Priya
M.Tech. Coordinator, SECS

R

Prof. Rajendrakumar Patil
Director, School of Electrical &
Communication Sciences

R.S.

Prof. R. S. Deshpande
Dean, Faculty of Science and Technology

A.S.

Dr. Anuracha S. Deshpande
Associate Dean (Academics)



B.B.

Prof. B.B. Ahuja
Vice Chancellor, JSPM University Pune

**Vice Chancellor
JSPM University
Pune**





JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF ELECTRICAL AND COMMUNICATION SCIENCES

COURSE STRUCTURE
(NEP 2020 Aligned)

W. E. F

2024-2025

RELEASE DATE

01/07/2025

MASTER OF TECHNOLOGY (VLSI AND EMBEDDED SYSTEMS)

REVISION NO.

1.0 (NEP)

SEMESTER II (LEVEL 6.5)

TYPE	CODE	COURSE NAME	TEACHING SCHEME				EXAMINATION SCHEME AND MARKS								TOTAL	CREDITS	
			Hours / Week				THEORY (Equal Weightage for CIE and ESE)			PRACTICAL (Equal Weightage for CIE and ESE)		ORAL (Equal Weightage for CIE and ESE)					
			L	T	P	EL	CONTINUOUS INSEMESTER EVALUATION (100 Marks)			END SEMESTER EXAMINATION (100 / 50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)	END SEMESTER EXAMINATION (50 Marks)	CONTINUOUS INSEMESTER EVALUATION (50 Marks)	END SEMESTER EXAMINATION (50 Marks)			
							T1 (30 Marks)	T2 (30 Marks)	Assignments (40 Marks)								
PSBC	230GETM20_02	Basics of IC Fabrication	2	1	-	-	30	30	40	100	-	-	-	-	100	3	
PCC	230GETM04_02	RTL Synthesis and Simulation	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5	
PCC	240GETM01_02	CMOS Digital VLSI Design (NPTEL)	2	-	-	-	-	-	25	75	-	-	-	-	50	2	
MMC	---	Multidisciplinary Minors Course	1	-	2	-	-	-	-	-	50	50	50	50	100	2	
SEC	230GETM19_02	System Design with Embedded Linux	2	-	2	-	-	-	-	-	50	50	50	50	100	3	
VSC	230IINB02_02	Innovation	1	-	-	2	-	-	-	-	-	-	50	50	50	1.5	
AEC	231UENM02_02	Business Communication	1	-	2	-	-	-	-	-	50	50	-	-	50	2	
RMC	230IRMM02_02	Research Design and Techniques	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
LC	230GETM22_02	RTL Synthesis and Simulation Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
LC	250GVEM03_02	CMOS Digital VLSI Design Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1	
IITP/ P/CE P	230GETM24_02	Internship/FieldProject/Community Engagement Programme	4 to 6 weeks				-	-	-	-	-	-	-	50	50	50	2
TOTAL			13	1	10	4									750	22	

Note: A Postgraduate Diploma will be awarded if a student exits after first year. For Exit at the end of first year the student must complete: (Total credits = 8)

- a) An internship / OJT of 8 - 10 weeks (4 credits)
- b) Additional Course 1 (4 credits) (Vocational Skill Course (VSC) / Skill Enhancement Course (SEC))

Sem.	Multidisciplinary Minors Course (MMC)			
I	Course Code	230GRAM24_01	230GCSM28_01	230GRAB51_01
	Course Name	Sensors and Automation	Introduction to Data Science	Robot Modeling
II	Course Code	250GCSM02_02	250GCSM01_02	230GRAB52_02
	Course Name	Cloud Computing and Services	Cyber Security Fundamentals	Autonomous Mobile Robot

Alisha

Dr. Alisha Priya
M.Tech. Coordinator, SECS

R

Prof. Rajendrakumar Patil
Director, School of Electrical &
Communication Sciences

R.S.

Prof. R. S. Deshpande
Dean, Faculty of Science and Technology

AS

Dr. Anuradha S. Deshpande
Associate Dean (Academics)

B.B.

Prof. B.B. Ahuja
Vice Chancellor, JSPM University Pune



Vice Chancellor
JSPM University
Pune