

**JSPM University Pune**

**Faculty of Science and Technology**

**School of Electrical and Communication Sciences**



**NEP aligned Structure**

**for**

**M. Tech (Electrical Engineering)**

**(AY: 2025-26 and AY: 2026-27: )**



# JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF ELECTRICAL AND COMMUNICATION SCIENCES

COURSE STRUCTURE  
(NEP 2020 Aligned)

W. E. F

2025-2026

RELEASE DATE

01/07/2025

MASTER OF TECHNOLOGY (POWER ELECTRONICS AND DRIVES)

REVISION NO.

0.0 (NEP)

SEMESTER I (LEVEL 6.5)

TYPE	CODE	COURSE NAME	TEACHING SCHEME				EXAMINATION SCHEME AND MARKS										CREDITS
			Hours / Week				THEORY (Equal Weightage for CIE and ESE)				PRACTICAL (Equal Weightage for CIE and ESE)		ORAL (Equal Weightage for CIE and ESE)		TOTAL		
			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	250GPEM01_01	Analysis of Power Converters	2	-	-	-	30	30	40	50	-	-	-	-	50	2	
PCC	250GPEM02_01	Modeling and Analysis of Electric Drives	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5	
PCC	250GPEM03_01	Modern Control Theory	3	-	-	-	30	30	40	100	-	-	-	-	100	3	
MMC	---	Multidisciplinary Minors Course	1	-	2	-	-	-	-	-	-	-	-	-	100	3	
SEC	240GCSM05_01	Advanced Python Programming	2	-	2	-	-	-	-	-	50	50	50	50	100	2	
VSC	230IDCB01_01	Design Thinking and Creativity	1	-	-	2	-	-	-	-	50	50	50	50	100	3	
AEC	231UENM01_01	Communicative English for Professionals	1	-	2	-	-	-	-	-	-	-	50	50	50	1.5	
RMC	230IRMM01_01	Research Methodology	2	-	-	-	30	30	40	50	50	-	-	50	2		
LC	250GPEM04_01	Analysis of Power Converters Lab	-	-	2	-	-	-	-	-	-	-	-	-	50	2	
TOTAL			16	1	8	4	-	-	-	-	50	50	-	-	50	1	
															750	22	

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

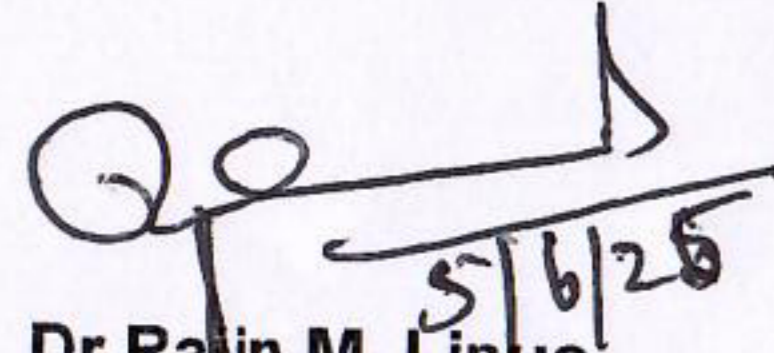
T-Tutorial  
Rev. No.:0.0

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

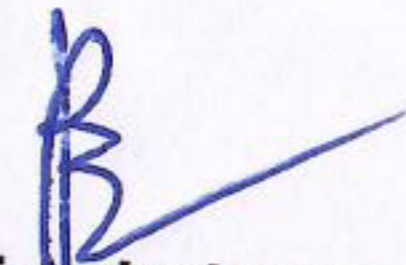


EL-Experiential Learning

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	230GETM16_02	230GCSM29_02	230GRAB52_02
	Course Name	IOT Basics and Applications	Introduction to Artificial Intelligence	Autonomous Mobile Robot

  
5/6/25

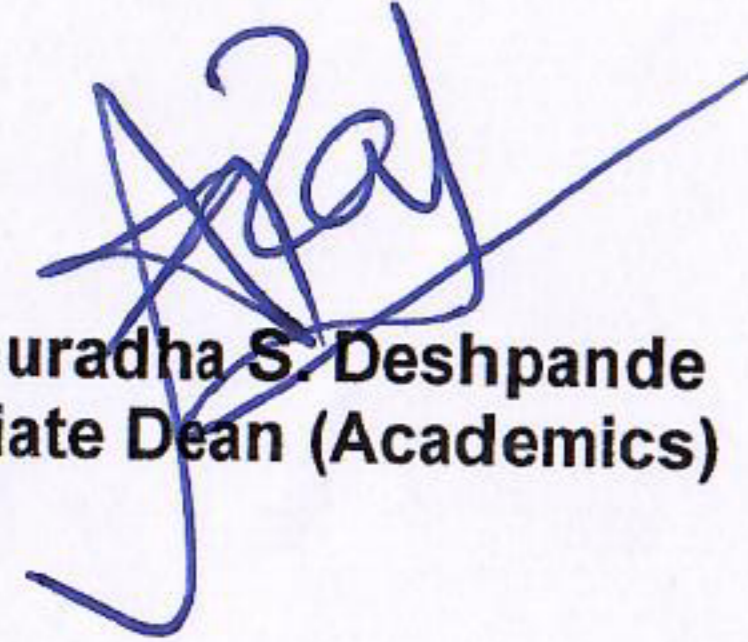
Dr. Rajin M. Linus  
M.Tech. Coordinator, SECS



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



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



Dr. Anuradha S. Deshpande  
Associate Dean (Academics)





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

**Vice Chancellor  
JSPM University  
Pune**

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EL-Experiential Learning



# JSPM University Pune

FACULTY OF SCIENCE & TECHNOLOGY

SCHOOL OF ELECTRICAL AND COMMUNICATION SCIENCES

MASTER OF TECHNOLOGY (Power Electronics and Drives)

COURSE STRUCTURE  
(NEP 2020 Aligned)

W. E. F

2025-2026

RELEASE DATE

01/07/2025

REVISION NO.

0.0 (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	250GPEM05_02	Switched Mode Power Supplies	2	1	-	-	30	30	40	100	-	-	-	-	100	3		
PCC	250GPEM06_02	Digital Control of Power Electronic Systems	2	-	-	2	30	30	40	100	-	-	-	-	100	2.5		
PCC	250GPEM07_02	Industrial Electrical Drives	2	-	-	-	30	30	40	50	-	-	-	-	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	250GPEM08_02	Industrial Electrical Drives Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1		
LC	250GPEM09_02	PLC and SCADA System Lab	-	-	2	-	-	-	-	-	50	50	-	-	50	1		
IITP/ P/CE P	250GPEM10_02	Internship/FieldProject/Community Engagement Programme	4 to 6 weeks				-	-	-	-	-	-	-	50	50	50	2	
<b>TOTAL</b>			<b>13</b>	<b>1</b>	<b>10</b>	<b>4</b>									<b>750</b>	<b>22</b>		

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))

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