VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI

Scheme of Teaching and Examinations (2026)

M.Tech., in Electronics and Communication Engineering

(VLSI Design & Embedded Systems)

Choice-Based Credit System (CBCS) and Outcome-Based Education (OBE)

	II SEMESTER: VLSI DESIGN & EMBEDDED SYSTEMS													
Sl. No	Course Type	Course Code	Course Title	Teaching & Learning Scheme					Examination				Credits
				CI		LI	TW & SL	Total Hours/Sem	Duration in hours	CIE Marks	SEE Marks	Total Marks	
				L	T	P							
1	PCC	1MLVS201	High Performance Computing architectures	42	0	0	48	90	03	50	50	100	4
2	PCC	1MLVS202	Analog & Mixed Mode VLSI Design	42	0	0	48	90	03	50	50	100	3
3	PCC	1MLVS203	VLSI Testing	42	0	0	48	90	03	50	50	100	3
4	PCC	1MLVS204	VLSI Design Automation	42	0	28	50	120	03	50	50	100	3
5	PEC	1MLVS205X	Professional Elective Courses-III	42	0	0	48	90	03	50	50	100	3
6	PEC	1MLVS206X	Professional Elective Course-IV	42	0	0	48	90	03	50	50	100	3
7	PCCL	1MLVS207X	Professional Core Course- Lab (AEC Lab)	0	0	28	02	30	03	50	50	100	1
	PCC	1MLVS208	Minor Project	0	0	28	02	30	03	50	50	100	2
TOTAL										**350**	**350**	**700**	**22**

Professional Elective Courses (PECs):

Professional Elective Courses – PEC–I and PEC–II – are common to all branches of specialization within a particular Engineering stream. Students may choose the most appropriate elective based on their field of specialization and academic requirements. *Note: The number of courses listed under each PEC group may exceed four, depending on the specializations under one stream.*

Integrated Professional Core Courses (IPCC):

The 1Mxx104x Group comprises specialization-specific core courses that are integrated with a practical component, ensuring application-oriented learning aligned with industry and research needs. The number of courses in the group depends on the number of specializations offered under a particular engineering stream.

Professional Elective Courses (PECs)				
PEC-III			**PEC-IV**	
Code	**Title of the Course**		**Code**	**Title of the Course**
1MLVS205A	Micro Electro Mechanical Systems		1MLVS206A	CMOS RF IC Design
1MLVS205B	RISC V architecture		1MLVS206B	Embedded Linux
1MLVS205C	Nanoelectronics		1MLVS206C	IC packaging and Reliability Engineering
1MLVS205D	FinFET & Multirate transistors		1MLVS206D	VLSI digital automation

Professional Core Courses Lab (PCCL)	
1MLVS207A	Digital System Design with Verilog
1MLVS207B	Static Timing Analysis