

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI**



Scheme of Teaching and Examinations (2026)

**M.Tech., in Electronics & Communication Engineering
(Biomedical Electronics & Industrial Instrumentation)**

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

II SEMESTER: BIOMEDICAL ELECTRONICS & INDUSTRIAL INSTRUMENTATION													
S l · N o	Course Type	Course Code	Course Title	Teaching & Learning Scheme					Examination				Cr ed its
				CI		LI	TW & SL	Tot al Hou rs/S em	Du rati on in ho urs	CIE Ma rks	SEE Ma rks	Tot al Mar ks	
				L	T	P							
1	PCC	1MLMI201	Bioinspired Computing	42	0	0	48	90	03	50	50	100	4
2	PCC	1MLMI202	Speech Signal processing	42	0	0	48	90	03	50	50	100	3
3	PCC	1MLMI203	Smart Sensors & IoT Instrumentation	42	0	0	48	90	03	50	50	100	3
4	PCC	1MLMI204	Calibration Techniques for medical electronics	42	0	28	50	120	03	50	50	100	3
5	PEC	1MLMI205X	Professional Elective Courses-III	42	0	0	48	90	03	50	50	100	3
6	PEC	1MLMI206X	Professional Elective Course-IV	42	0	0	48	90	03	50	50	100	3
7	PCCL	1MLMI207X	Professional Core Course- Lab (AEC Lab)	0	0	28	02	30	03	50	50	100	1
	PCC	1MLMI208	Minor Project	0	0	28	02	30	03	50	50	100	2
TOTAL										350	350	700	22
<p>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. <i>Note: The number of courses listed under each PEC group may exceed four, depending on the specializations under one stream.</i></p> <p>Integrated Professional Core Courses (IPCC): The 1Mx104x 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.</p>													

Professional Elective Courses (PECs)				
PEC-III			PEC-IV	
Code	Title of the Course		Code	Title of the Course
1MLMI205A	Medical Informatics & Expert system		1MLMI206A	Bio materials & Artificial organs
1MLMI205B	Brain - Computer Interfacing		1MLMI206B	Machine Vision System
1MLMI205C	AI for medical Signal processing		1MLMI206C	Deep Learning in healthcare
1MLMI205D	Bioinstrumentation		1MLMI206D	Sensors & Wearable Devices

Professional Core Course- Lab (AEC Lab)	
1MLMI207A	Embedded Systems for Medical Instrumentation
1MLMI207B	Edge & Cloud computing