



**BMS INSTITUTE OF TECHNOLOGY & MANAGEMENT**  
(Autonomous Institution Affiliated to VTU, Belagavi)

**B. E. in Electronics and Telecommunication Engineering**

**Scheme of Teaching and Examinations – 2022 Scheme**

Outcome-Based Education (OBE) and Choice Based Credit System (CBCS)  
(Effective from the academic year 2025-26, 2022 Scheme)

**VIII Semester**

Sl. No.	Course Category	Course Code	Course Title	Teaching Department (TD) and Question Paper Setting Board (PSB)	Credits Distribution				Examination				Contact Hours/ week
					L	T	P	Total	CIE Marks	SEE Marks	Total Marks	SEE Duration (H)	
1	PEC	BET801X	Professional Elective Course IV (Online courses)	TD: ET PSB: ET	3	0	0	3	25	75	100	3	-
2	OEC	BET802X	Open Elective Course III (Online courses)		3	0	0	3	25	75	100	3	-
3	INT	BET803	Industry Internship / Research Internship	-	0	0	10	10	100	100	200	3	20
<b>TOTAL</b>					<b>6</b>	<b>0</b>	<b>10</b>	<b>16</b>	<b>150</b>	<b>250</b>	<b>400</b>	<b>-</b>	<b>20</b>
<b>Professional Elective Course IV (Online courses)</b>				<b>Open Elective Course III (Online courses)</b>									
Course Code	NPTEL Course ID	Course Name		Course Code	NPTEL Course ID	Course Name							
BET801A	noc25_ee106	VLSI Design Flow: RTL to GDS		BET802A	ntr25_ed132	Algorithms							
BET801B	noc25_ee111	Analog VLSI Design		BET802B	noc25_de20	Understanding Incubation and Entrepreneurship							
BET801C	noc25_ee105	Linear Systems Theory		BET802C	noc25_hs121	German - I							
BET801D	noc25_ee121	Nanobiophotonics: Touching Our Daily Life		BET802D	noc25_hs122	German - II							
BET801E	noc25_ee110	Microelectronics: Devices to Circuits		BET802E	noc25_hs179	Introduction to Japanese Language and Culture - II							

BET801F	noc25_ee109	Introduction to Wireless and Cellular Communications	BET802F	imb25_mg128	B2B Marketing
BET801G	noc25_bt86	Fundamentals of Micro and Nanofabrication	BET802G	cec25_mg19	Basics of Digital Marketing
BET801H	noc25-ee113	Applied Linear Algebra for Signal Processing, Data Analytics and Machine Learning	BET802H	noc25_mg81	Entrepreneurship
BET801I	noc25-ee118	Real-Time Digital Signal Processing	BET802I	noc25_cs93	Deep Learning for Computer Vision
BET801J	noc25-ee127	Pattern Recognition and Application	BET802J	noc25_cs146	Introduction to Industry 4.0 and Industrial Internet of Things
BET801K	noc25-ee129	Principles and Techniques of Modern Radar Systems	BET802K	noc25_cs141	Operating System Fundamentals
BET801L	noc25-ee153	Mathematical Methods and Techniques in Signal Processing	BET802L	noc26-hs116	Online Communication in the Digital Age
BET801M	noc25-ee154	Neural Networks for Signal Processing - I	BET802M	noc26-hs81	Globalization: Theoretical Perspectives
BET801N	noc25-ee161	Signal Processing for mm Wave Communication for 5G and Beyond	BET802N	noc26-mg12	Supply Chain Digitization
BET801O	noc25-ee163	Electronic Systems Design: Hands-on Circuits and PCB Design with CAD Software	BET802O	noc26-mg60	Talent Acquisition and Management
BET801P	noc25-ee172	5G Wireless Standard Design	BET802P	noc26-mg61	Leadership and Team Effectiveness
BET801Q	noc25-ee179	Simulation of Communication Systems using Matlab	BET802Q	noc26-hs43	Introduction to Japanese Language and Culture
BET801R	noc25-ee185	RFIC Design	BET802R	noc26-mg41	E-Business
BET801S	noc26-ee04	Basic Overview of Semiconductor Device Processing and IC Fabrication	BET802S	noc26-ec10	Health Economics
BET801T	noc26-ee07	Memory Device Technology for AI/ML Computing	BET802T	noc26-mg38	Safety and Risk Analytics

BET801U	noc26-ee09	FPGA Based Signal Processing Systems	BET802U	noc26-mg11	Business Fundamentals for Entrepreneurs
BET801V	noc26-ee10	Photonic Integrated Circuit	BET802V	noc26-cs66	Deep Learning - IIT Ropar
BET801W	noc26-ee20	Network Security	BET802W	noc26-cs69	Getting Started with Competitive Programming
BET801X	noc26-ee21	Digital Communication using GNU Radio	BET802X	noc26-hs78	German - I
BET801Y	noc26-ee25	Principles of Digital Communication	BET802Y	noc26-cs63	Artificial Intelligence: Knowledge Representation and Reasoning
BET801Z	noc26-ee45	Digital VLSI Testing	BET802Z	noc26-hs58	Education for Sustainable Development
BET801AA	noc26-ee52	Biomedical Signal Processing	BET802AA	noc26-ch40	Environmental Quality Monitoring & Analysis
BET801AB	noc26-ee60	Spread Spectrum Communications and Jamming	BET802AB	noc26-cs74	Introduction to Machine Learning
BET801AC	noc26-ee70	Digital IC Design	BET802AC	noc26-cs34	Blockchain and its Applications
BET801AD	noc26-ee71	Digital System Design	BET802AD	noc26-ce74	Air pollution and Control
BET801AE	noc26-ee77	Optical Wireless Communications for Beyond 5G Networks and IoT	BET802AE	noc26-ag09	Water Quality Management Practices
BET801AF	noc26-ee90	VLSI Physical Design with Timing Analysis			
BET801AG	noc26-ee91	RF Transceiver Design			

**Professional Elective / Open Elective Online Courses:** These are ONLINE courses suggested by the respective Board of Studies. Details of these courses shall be made available for students during the VI semester only. Students are required to choose only the courses which are suggested by the respective BoS. Duration of the online course should be of a minimum of 12 weeks. Students can able to complete the specified online courses with a qualifying certificate issued by the competent authority. The online courses can be registered and completed from the VI semester onwards and the credits will be considered during the VIII semester only. The courses are to be chosen from the SWAYAM - NPTEL platform only. The credits earned for these courses will not be considered for claiming the credits under the Honors Degree programme.

**Industry Internship / Research Internship:** The mandatory Industry / Research internship is for 14 to 20 weeks. The internship shall be considered as a head of passing and shall be considered for the award of a degree. Those who do not take up/complete the internship shall be declared to fail and shall have to complete it during the subsequent examination after satisfying the internship requirements.

**Research internship:** A research internship is intended to offer the flavour of current research going on in the research field. It helps students get familiarized with the field and imparts the skill required for carrying out research.

**Industry internship:** Is an extended period of work experience undertaken by students to supplement their degree for professional development. It also helps them learn to overcome unexpected obstacles and successfully navigate organizations, perspectives, and cultures. Dealing with contingencies helps students recognize, appreciate, and adapt to organizational realities by tempering their knowledge with practical constraints.

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