



**BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT**  
(Autonomous Institute affiliated to VTU)

Department of Electrical and Electronics Engineering  
**2022 Scheme - VIII semester**



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

**B. E. in Electrical & Electronics Engineering**  
**Scheme of Teaching and Examinations – 2022 Scheme**

Outcome-Based Education (OBE) and Choice Based Credit System (CBCS)  
(Effective from the academic year 2022-23 onwards)

**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	22EE81X	Professional Elective Course IV (Online courses)	TD: EE PSB: EE	3	0	0	3	30	70	100	3	-
2	OEC	22EE82X	Open Elective Course III (Online courses)		3	0	0	3	30	70	100	3	-
3	INT	22EE83	Industry Internship / Research Internship	-	0	0	10	10	100	100	200	3	20
<b>TOTAL</b>					<b>0</b>	<b>0</b>	<b>10</b>	<b>16</b>	<b>200</b>	<b>200</b>	<b>400</b>	<b>-</b>	<b>20</b>

**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 V 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 vacation of V 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.

**List of Open Elective Courses offered (NPTEL)**

<b>Sl. No.</b>	<b>NPTEL Course Code</b>	<b>Name of the NPTEL Course (As Open elective)</b>	<b>Course link</b>
1.	noc26-cs38	Introduction to Industry 4.0 and Industrial Internet of Things	<a href="https://onlinecourses.nptel.ac.in/noc26_cs38/preview">https://onlinecourses.nptel.ac.in/noc26_cs38/preview</a>
2.	noc26-de10	Usability Engineering	<a href="https://onlinecourses.nptel.ac.in/noc26_de10/preview">https://onlinecourses.nptel.ac.in/noc26_de10/preview</a>
3.	noc26-ee38	Fuzzy Sets, Logic and Systems & Applications	<a href="https://onlinecourses.nptel.ac.in/noc26_ee38/preview">https://onlinecourses.nptel.ac.in/noc26_ee38/preview</a>
4.	noc26-mg11	Business Fundamentals for Entrepreneurs	<a href="https://onlinecourses.nptel.ac.in/noc26_mg11/preview">https://onlinecourses.nptel.ac.in/noc26_mg11/preview</a>
5.	noc26-mg64	Business Analytics and Data Mining Modeling using R	<a href="https://onlinecourses.nptel.ac.in/noc26_mg64/preview">https://onlinecourses.nptel.ac.in/noc26_mg64/preview</a>
6.	noc26-ae03	Aeromechanics of Unmanned Aerial Vehicles / Drones	<a href="https://onlinecourses.nptel.ac.in/noc26_ae03/preview">https://onlinecourses.nptel.ac.in/noc26_ae03/preview</a>
7.	noc26-cs88	Introduction to Large Language Models (LLMs)	<a href="https://onlinecourses.nptel.ac.in/noc26_ae03/preview">https://onlinecourses.nptel.ac.in/noc26_ae03/preview</a>
8.	noc26-ag13	Novel Technologies for Food Processing and Shelf Life Extension	<a href="https://onlinecourses.nptel.ac.in/noc26_ag13/preview">https://onlinecourses.nptel.ac.in/noc26_ag13/preview</a>
9.	noc26-ce78	Railway Engineering	<a href="https://onlinecourses.nptel.ac.in/noc26_ce78/preview">https://onlinecourses.nptel.ac.in/noc26_ce78/preview</a>
10.	noc26-ge06	Climate Risk, Adaptation and Sustainable Development	<a href="https://onlinecourses.nptel.ac.in/noc26_ge06/preview">https://onlinecourses.nptel.ac.in/noc26_ge06/preview</a>
11.	noc26-cs55	Cloud Computing	<a href="https://onlinecourses.nptel.ac.in/noc26_cs55/preview">https://onlinecourses.nptel.ac.in/noc26_cs55/preview</a>
12.	noc26-hs78	German - I	<a href="https://onlinecourses.nptel.ac.in/noc26_hs78/preview">https://onlinecourses.nptel.ac.in/noc26_hs78/preview</a>
13.	noc26-hs43	Introduction to Japanese Language and Culture	<a href="https://onlinecourses.nptel.ac.in/noc26_hs43/preview">https://onlinecourses.nptel.ac.in/noc26_hs43/preview</a>

List of Professional Elective Courses offered (NPTEL)			
Sl. No.	NPTEL Course Code	Name of the NPTEL Course (As professional elective)	Course link
1.	noc26-ee02	Control Engineering for Robotics	<a href="https://onlinecourses.nptel.ac.in/noc26_ee02/preview">https://onlinecourses.nptel.ac.in/noc26_ee02/preview</a>
2.	noc26-ae11	Wind Energy	<a href="https://onlinecourses.nptel.ac.in/noc26_ae11/preview">https://onlinecourses.nptel.ac.in/noc26_ae11/preview</a>
3.	noc26-ee31	Computer Vision and Image Processing - Fundamentals and Applications	<a href="https://onlinecourses.nptel.ac.in/noc26_ee31/preview">https://onlinecourses.nptel.ac.in/noc26_ee31/preview</a>
4.	noc26-ee84	Smart Grid: Basics to Advanced Technologies	<a href="https://onlinecourses.nptel.ac.in/noc26_ee84/preview">https://onlinecourses.nptel.ac.in/noc26_ee84/preview</a>
5.	noc26-ee13	Sensors and actuators	<a href="https://onlinecourses.nptel.ac.in/noc26_ee13/preview">https://onlinecourses.nptel.ac.in/noc26_ee13/preview</a>
6.	noc26-ee35	Operation and Planning of Power Distribution Systems	<a href="https://onlinecourses.nptel.ac.in/noc26_ee35/preview">https://onlinecourses.nptel.ac.in/noc26_ee35/preview</a>
7.	noc26-ee26	Power Quality	<a href="https://onlinecourses.nptel.ac.in/noc26_ee26/preview">https://onlinecourses.nptel.ac.in/noc26_ee26/preview</a>
8.	noc26-cs24	Digital Design with Verilog	<a href="https://onlinecourses.nptel.ac.in/noc26_cs24/preview">https://onlinecourses.nptel.ac.in/noc26_cs24/preview</a>
9.	noc26-ee47	Industrial Automation and Control	<a href="https://onlinecourses.nptel.ac.in/noc26_ee47/preview">https://onlinecourses.nptel.ac.in/noc26_ee47/preview</a>
10.	noc26-ee33	Integrated Circuits and Applications	<a href="https://onlinecourses.nptel.ac.in/noc26_ee33/preview">https://onlinecourses.nptel.ac.in/noc26_ee33/preview</a>

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