

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
CHOICE BASED CREDIT SYSTEM (CBCS)
SCHEME OF TEACHING AND EXAMINATION 2016-2018

M.Tech in INDUSTRIAL ELECTRONICS

I SEMESTER

Sl. No	Subject Code	Title	Teaching Hours /Week		Examination				Credit
			Theory	Practical/ Field Work/ Assignment	Duration	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	16ELD11	Advanced Engineering Mathematics	4	-	3	20	80	100	4
2	16EIE12	Advanced Control System	4	-	3	20	80	100	4
3	16EVE13	Advanced Embedded Systems	4	-	3	20	80	100	4
4	16ELD14	Digital Circuit and Logic Design	4	-	3	20	80	100	4
5	16EXX15X	Elective-1	3	-	3	20	80	100	3
6	16EIEL16	Industrial Electronics Lab-1		3	3	20	80	100	2
7	16EIE17	Seminar on advanced topics from refereed journals	-	3	-	100	-	100	1
TOTAL			19	6	18	220	480	700	22

Elective -1	
16EIE151	PLCs and Industrial Automation
16EVE152	Nanoelectronics
16EIE153	Virtual Instrumentation
16ECS154	Simulation, Modelling and Analysis

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II SEMESTER

Sl. No	Subject Code	Title	Teaching Hours /Week		Examination			Credit	
			Theory	Practical/Field Work/Assignment	Duration	I.A. Marks	Theory/Practical Marks		Total Marks
1	16ECS21	Advanced DSP	4	-	3	20	80	100	4
2	16EIE22	Design of Power Converters	4	-	3	20	80	100	4
3	16EIE23	Process Control Instrumentation	4	-	3	20	80	100	4
4	16EVE24	Real Time Operating System	4	-	3	20	80	100	4
5	16EXX25X	Elective -2	3	-	3	20	80	100	3
6	16EIEL26	Industrial Electronics Lab-2		3	3	20	80	100	2
7	16EIE27	Seminar on Advanced topics from refereed journals	-	3	-	100	-	100	1
TOTAL			19	6	18	220	480	700	22

Elective -2	
16ELD251	Automotive Electronics
16EIE252	Sensors and Transducers
16ELD253	MEMS
16ECS254	Cryptography and Network Security

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III SEMESTER: Internship

Sl. No	Subject Code	Title	Teaching Hours /Week		Examination			Credit	
			Theory	Practical/Field Work/Assignment	Duration	I.A. Marks	Theory/Practical Marks		Total Marks
1	16EIE31	Seminar / Presentation on Internship (After 8 weeks from the date of commencement)	-	-	-	25	-	25	20
2	16EIE32	Report on Internship	-	-	-	25	-	50	
3	16EIE33	Evaluation and Viva-Voce of Internship	-	-	-	-	50	50	
4	16EIE34	Evaluation of Project phase -1	-	-	-	50	-	25	1
TOTAL			-	-	-	100	50	150	21

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IV SEMESTER

Sl. No	Subject Code	Title	Teaching Hours /Week		Examination				Credit
			Theory	Practical/Field Work/Assignment	Duration	I.A. Marks	Theory/Practical Marks	Total Marks	
1	16ELD41	Synthesis and optimization of Digital Circuits	4	-	3	20	80	100	4
2	16EXX42X	Elective-3	3	-	3	20	80	100	3
3	16EIE43	Evaluation of Project phase -2	-	-	-	50	-	50	3
4	16EIE44	Evaluation of Project and Viva-Voce	-	-	-	-	100+100	200	10
TOTAL			-	-	6	90	360	450	20

Elective-3	
16EIE421	Advanced Power Electronics Converters & Applications
16ECS422	Advances in Image Processing
16EIE423	Medical Imaging
16EIE424	Industrial Drives

Note:

- 1. Project Phase-1:** 6-week duration shall be carried out between 2nd and 3rd Semester vacation. Candidates in consultation with the guide shall carry out literature survey/ visit industries to finalize the topic of Project.
- 2. Project Phase-2:** 16-week duration during 4th semester. Evaluation shall be done by the committee constituted comprising of HoD as Chairman, Guide and Senior faculty of the department.
- 3. Project Evaluation:** Evaluation shall be taken up at the end of 4th semester. Project work evaluation and Viva-Voce examination shall be conducted .
 - a. Internal Examiner shall carry out the evaluation for 100 marks.
 - b. External Examiner shall carry out the evaluation for 100 marks.
 - c. The average of marks allotted by the internal and external examiner shall be the final marks of the project evaluation.
 - d. Viva-Voce examination of Project work shall be conducted jointly by Internal and External examiner for 100 marks.