

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
CHOICE BASED CREDIT SYSTEM (CBCS)
SCHEME OF TEACHING AND EXAMINATION 2016-2017

M.Tech in Signal Processing

I SEMESTER

Subject Code	Title	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work / Assignment/ Tutorials		I.A.	Exam		
16ELD11	Advanced Engineering Mathematics	4	--	3	20	80	100	4
16ESP12	Statistical Signal Processing	4	--	3	20	80	100	4
16EVE13	Advanced Embedded Systems	4	--	3	20	80	100	4
16ESP14	Modern DSP	4	--	3	20	80	100	4
16EXX15X	Elective – 1	3	--	3	20	80	100	3
16ESPL16	Signal Processing lab	--	3	3	20	80	100	2
16ESPL17	Seminar on advanced topics from refereed journals	--	3	--	100	--	100	1
Total		19	6	18	220	480	700	22

Elective-1:

16ECS151	Advanced Computers Networks	16ESP153	Modern Spectral Analysis & Estimation
16ESP152	Multirate Systems and Filter Banks	16ECS154	Simulation, Modeling and Analysis

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II SEMESTER

Subject Code	Title	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work / Assignment/ Tutorials		I.A.	Exam		
16ESP21	Image Processing and Machine Vision	4	--	3	20	80	100	4
16ESP22	DSP System Design	4	--	3	20	80	100	4
16ESP23	Digital Signal Compression	4	--	3	20	80	100	4
16ESP24	Biomedical Signal Processing	4	--	3	20	80	100	4
16EXX25X	Elective-2	3	--	3	20	80	100	3
16ESPL26	Image Processing Lab	--	3	3	20	80	100	2
16ESP27	Seminar on Advanced topics from refereed Journals	--	3	--	100	--	100	1
Total		19	6	18	220	480	700	22

Elective - 2:

16ESP251	Detection & Estimation	16ESP253	Pattern Recognition
16EVE252	VLSI Design for Signal Processing	16ESP254	Channel Coding

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III SEMESTER: Internship

Subject Code	Title	Teaching hours/week		Duration of the Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work		I.A.	Exam		
16ESP31	Seminar / Presentation on Internship (After 8 weeks from the date of commencement)	--	--	--	25	--	25	20
16ESP32	Report on Internship	--	--	--	25		25	
16ESP33	Evaluation and Viva-voce on Internship	--	--	--	--	50	50	
16ESP34	Evaluation of Project Phase-I	--	--	--	50	--	50	1
	Total	--	--	--	100	50	150	21

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IV SEMESTER

Subject Code	Subject	Teaching hours/week		Duration of Exam in Hours	Marks for		Total Marks	CREDITS
		Lecture	Practical / Field Work / Assignment/ Tutorials		I.A.	Exam		
16ESP41	Adaptive Signal processing	4	--	3	20	80	100	4
16EXX42X	Elective-3	3	--	3	20	80	100	3
16ESP43	Evaluation of Project Phase-II	--	--	--	50	-	50	3
16ESP44	Evaluation of Project Work and Viva-Voce	--	--	--	--	100+100	200	10
Total		7	--	06	90	360	450	20

Elective-3:

16ESP421	Array Signal Processing	16ECS423	Communication System Design using DSP Algorithms
16ESP422	Speech and Audio processing	16ELD424	Reconfigurable Computing

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.