VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examination: 2018-19
M.Tech in VLSI Design & Embedded Systems (EVE)
Choice Based Credit System (CBCS)

I SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical/ Field work/ Assignment	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PCC	18ELD11	Advanced Engineering Mathematics	04	--	03	40	60	100	4
2	PCC	18EVE12	ASIC Design	04	--	03	40	60	100	4
3	PCC	18EVE13	Advanced Embedded System	04	--	03	40	60	100	4
4	PCC	18EVE14	VLSI Testing	04	--	03	40	60	100	4
5	PCC	18EVE15	Digital VLSI Design	04	--	03	40	60	100	4
6	PCC	18EVEL16	VLSI & ES Lab-1	-	04	03	40	60	100	2
7	PCC	18RMI17	Research Methodology and IPR	02	--	03	40	60	100	2
			TOTAL	**22**	**04**	**21**	**280**	**420**	**700**	**24**

Note:- PCC: Professional Core Course

Internship: All the students shall undergo mandatory internship of 6 weeks during the vacation of I and II semesters and /or II and III semesters. University examination will be conducted during III semester and prescribed credit shall be included in the III semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared as failed and have to complete during subsequent University examination after satisfying the internship requirements.

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II SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical/ Field work/ Assignment	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PCC	18EVE21	Design of Analog and Mixed mode VLSI Circuits	04	--	03	40	60	100	4
2	PCC	18EVE22	Real Time Operating System	04	--	03	40	60	100	4
3	PCC	18EVE23	System Verilog	04	--	03	40	60	100	4
4	PEC	18XXX24X	Professional Elective 1	04	--	03	40	60	100	4
5	PEC	18XXX25X	Professional Elective 2	04	--	03	40	60	100	4
6	PCC	18EVEL26	VLSI & ES Lab-2	--	04	03	40	60	100	2
7	PCC	18EVE27	Technical Seminar	--	02	--	100	--	100	2
TOTAL				**20**	**06**	**18**	**340**	**360**	**700**	**24**

Note:- PCC: Professional Core Course, PEC: Professional Elective Course

Professional Elective 1		Professional Elective 2	
Course Code Under 18XXX24X	**Course Title**	**Course Code Under 18XXX25X**	**Course Title**
18EVE241	Advances in VLSI Design	18EVE251	Low Power VLSI Design
18EVE242	Nanoelectronics	18EVE252	SoC Design
18EVE243	Static Timing Analysis	18ELD253	Micro Electro Mechanical Systems

Note:

1. Technical Seminar: CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide in any and a senior faculty of the department. Participation in seminar by all postgraduate students of the same and other semesters of the programme shall be mandatory.

The CIE marks awarded for Technical Seminar, shall be based on the evaluation of Seminar Report, Presentation skill and Question and Answer session in the ratio 50:25:25.

2. Internship: All the students shall undergo mandatory internship of 6 weeks during the vacation of I and II semesters and /or II and III semesters. A University examination will be conducted during III semester and prescribed credit shall be included in the III semester. Internship shall be considered as head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared as failed and have to complete during subsequent University examination after satisfying the internship requirements.

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III SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical/ Field work/ Assignment	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PCC	18EVE31	CAD of Digital Systems	04	--	03	40	60	100	4
2	PEC	18XXX32X	Professional Elective 3	04	--	03	40	60	100	4
3	PEC	18XXX33X	Professional Elective 4	04	--	03	40	60	100	4
4	Proj	18EVE34	Evaluation of Project Phase -1	--	02	--	100	--	100	2
5	INT	18EVE35	Internship	(Completed during the intervening vacation of I and II semesters and /or II and III semesters.)		03	40	60	100	6
TOTAL				**12**	**02**	**12**	**260**	**240**	**500**	**20**

Note:- PCC: Professional Core Course, PEC: Professional Elective Course, Proj: Project, INT: Internship

Professional Elective 3		Professional Elective 4	
Course Code Under 18XXX32X	**Course Title**	**Course Code Under 18XXX33X**	**Course Title**
18ECS321	Advances in Image Processing	18EVE331	VLSI for Signal Processing
18EVE322	CMOS RF Circuit Design	18ESP332	Pattern Recognition & Machine Learning
18EVE323	Embedded Linux System Design And Development	18ECS333	Internet of Things

Note:

1. Project Phase-1: Students in consultation with the guide/co-guide if any, shall pursue literature survey and complete the preliminary requirements of selected Project work. Each student shall prepare relevant introductory project document, and present a seminar.

CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide and a senior faculty of the department. The CIE marks awarded for project work phase -1, shall be based on the evaluation of Project Report, Project Presentation skill and Question and Answer session in the ratio 50:25:25.

SEE (University examination) shall be as per the University norms.

2. Internship: Those, who have not pursued /completed the internship shall be declared as failed and have to complete during subsequent University examinations after satisfy the internship requirements.

Internship SEE (University examination) shall be as per the University norms.

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IV SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical/ Field work/ Assignment	Duration in hours	CIE Marks	SEE Marks Viva voce	Total Marks	
1	Proj	18EVE41	Project Work Phase -2	--	04	03	40	60	100	20
			TOTAL	--	**04**	**03**	**40**	**60**	**100**	**20**

Note: Proj: Project.

Note:

1. Project Phase-2:

CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide, if any and a Senior faculty of the department. The CIE marks awarded for Project Work Phase -2, shall be based on the evaluation of Project Report subjected to plagiarism check, Project Presentation skill and Question and Answer session in the ratio 50:25:25.

SEE shall be at the end of IV semester. Project work evaluation and Viva-Voce examination (SEE), after satisfying the plagiarism check, shall be as per the University norms.