

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

**M.Tech in VLSI DESIGN AND EMBEDDED SYSTEMS**

**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	16EVE12	Digital VLSI Design	4	-	3	20	80	100	4
3	16EVE13	Advanced Embedded System	4	-	3	20	80	100	4
4	16EVE14	Low Power VLSI Design	4	-	3	20	80	100	4
5	16EXX15X	Elective-1	3	-	3	20	80	100	3
6	16EVEL16	VLSI and ES Lab -1		3	3	20	80	100	2
7	16EVE17	Seminar on advanced topics from refereed journals	-	3	-	100	-	100	1
<b>TOTAL</b>			<b>19</b>	<b>6</b>	<b>18</b>	<b>220</b>	<b>480</b>	<b>700</b>	<b>22</b>

<b>Elective -1</b>	
16 EVE151	Digital System Design Using Verilog
16 EVE152	Nanoelectronics
16 EVE153	ASIC Design
16 ELD154	Advanced Computer Architecture

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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	16EVE21	Design of Analog and Mixed mode VLSI Circuits	4	-	3	20	80	100	4
2	16EVE22	VLSI Testing	4	-	3	20	80	100	4
3	16EVE23	Advances in VLSI Design	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	16EVEL26	VLSI and ES Lab -2		3	3	20	80	100	2
7	16EVE27	Seminar on Advanced topics from refereed journals	-	3	-	100	-	100	1
<b>TOTAL</b>			<b>19</b>	<b>6</b>	<b>18</b>	<b>220</b>	<b>480</b>	<b>700</b>	<b>22</b>

<b>Elective -2</b>	
16EVE251	System Verilog
16EVE252	VLSI Design for Signal processing
16ELD253	MEMS
16EVE254	SoC Design

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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	16EVE31	Seminar / Presentation on Internship (After 8 weeks from the date of commencement)	-	-	-	25	-	25	20
2	16EVE32	Report on Internship	-	-	-	25	-	25	
3	16EVE33	Evaluation and Viva-Voce of Internship	-	-	-	-	50	50	
4	16EVE34	Evaluation of Project phase -1	-	-	-	50	-	50	1
<b>TOTAL</b>			-	-	-	<b>100</b>	<b>50</b>	<b>150</b>	<b>21</b>

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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	16EVE43	Evaluation of Project phase -2	-	-	-	50	-	50	3
4	16EVE44	Evaluation of Project and Viva-Voce	-	-	-	-	100+100	200	10
<b>TOTAL</b>			-	-	<b>6</b>	<b>90</b>	<b>360</b>	<b>450</b>	<b>20</b>

<b>Elective -3</b>	
16EVE421	CMOS RF Circuit Design
16ECS422	Advances in Image Processing
16EVE423	High Speed VLSI Design
16ELD424	Reconfigurable Computing

**Note:**

- 1. Project Phase-1:** 6-week duration shall be carried out between 2<sup>nd</sup> and 3<sup>rd</sup> 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 4<sup>th</sup> 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 4<sup>th</sup> 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.