

1. Curricular Aspects (100)

1.2 Academic Flexibility (30)

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years (10)

Sr. No.	Name of the new course introduced in last 5 years	Page Nos.
1	Transport Management	3
2	Energy Engineering	3
3	Advanced Engineering Geology	5
4	Advance Consturction Technique	6
5	Structural Design of Foundation and Retaining Structures	6
6	Adhoc Wireless Networks	7
7	Software Testing and Quality Assurance	7
8	FACTS	8
9	High Voltage Engineering/Electrical maintenance and electrical energy audit	9
10	Robotics	10
11	Mechatronics	10
12	Automobile Engineering	11
13	Total Quality Management	11
14	Industrial Engineering	12
15	Industrial Automation and Robotics	12
16	Transport Management	13
17	Energy Engineering	13
18	Advanced Foundation Engineering	15
19	Optimization Techniques	15
20	Advanced Engineering Geology	15
21	Advance Consturction Technique	16
22	Structural Design of Foundation and Retaining Structures	16
23	Mobile Applications	17
24	Software Testing and Quality Assurance	17
25	FACTS	18
26	High Voltage Engineering/Electrical maintenance and electrical energy audit	19
27	Robotics	20
28	Mechatronics	20
29	Automobile Engineering	21
30	Total Quality Management	21
31	Industrial Product Design	21
32	Industrial Engineering	22
33	Industrial Automation and Robotics	22
34	Energy Engineering	23
35	Transport Management	24
36	Project Appraisal	26
37	Advanced Foundation Engineering	26
38	Entrepreneurship	27
39	Structural Design of Foundation and Retaining Structures	27
40	Industrial Waste Treatement	28

41	Cyber Laws	29
42	Business Intelligence System	29
43	FACTS	30
44	EHVAC	30
45	Satellite Communication	32
46	Mobile Communication	32
47	Automobile Engineering	33
48	Total Quality Management	33
49	Industrial Automation and Robotics	33
50	Production Management	33
51	Energy Engineering	34
52	Transport Management	35
53	Project Appraisal	37
54	Advanced Foundation Engineering	37
55	Entrepreneurship	38
56	Structural Design of Foundation and Retaining Structures	38
57	Advance Consturction Technique	39
58	Cyber Laws	40
59	Data Mining ,Business Intelligence System	40
60	FACTS	41
61	EHVAC	41
62	Satellite Communication	43
63	Mobile Communication	43
64	Automobile Engineering	44
65	Total Quality Management	44
66	Production Management	44
67	Industrial Automation and Robotics	44
68	Energy Engineering	45
69	Transport Management	46
70	Project Appraisal	48
71	Advanced Foundation Engineering	48
72	Entrepreneurship	49
73	Structural Design of Foundation and Retaining Structures	49
74	Advance Consturction Technique	50
75	Cyber Laws,Project Management	51
76	Data Mining ,Business Intelligence System	51
77	FACTS	52
78	EHVAC	52
79	Satellite Communication	54
80	Mobile Communication	54
81	Automobile Engineering	55
82	Total Quality Management	55
83	Production Management	55
84	Industrial Automation and Robotics	55

**Shivaji University, Kolhapur**  
**Structure of Final Year Engineering (Revised)**  
 (To be implemented from Academic year 2016-17)  
**Automobile Engineering**  
**Scheme of Teaching and Examination**  
**Semester-VII**

Sr.No.	Subject	Teaching Scheme (Hrs.)				Examination Scheme(Marks)				
		L	T	P	Total	Theory	T/W	OE	POE	Total
01	I.C. Engine Design	3	---	2	5	100	25	---	---	125
02	Vehicle Dynamics	3	---	2	5	100	25	---	---	125
03	Finite Element Analysis	3	---	2	5	100	25	25	---	150
04	Vehicle Maintenance	3	---	2	5	100	25	---	---	125
05	Electives-I	3	---	---	3	100	---	---	---	100
06	I.C.Engine Testing Lab	---	---	2	2	---	25	---	25	50
07	Automotive Industrial Training	---	---	---	---	---	25*	---	---	25
08	Project Phase-I	---	---	2	2	---	50	50	---	100
Total		15	---	12	27	500	200	75	25	800

\* Assessment of Automotive Industrial Training will be carried out with Project Phase-I

**Semester-VIII**

Sr.No.	Subject	Teaching Scheme (Hrs.)				Examination Scheme(Marks)				
		L	T	P	Total	Theory	T/W	OE	POE	Total
01	Alternative Fuels and Emission	3	---	2	5	100	25	---	---	125
02	Automotive Electronics	3	---	2	5	100	25	---	---	125
03	Automotive System Design	3	---	2	5	100	25	25	---	150
04	Vehicle Performance and Testing	3	---	2	5	100	25	25	---	150
05	Elective-II	3	---	---	3	100	---	---	---	100
06	Project Phase-II	---	---	4	4	---	75	75	---	150
Total		15	---	12	27	500	175	125	---	800

**Elective -I**

1. Advanced Engine Technology
2. Computational Fluid Dynamics
3. Tribology
4. Optimizations Methods in Engineering Design
5. Transport Management

**Elective-II**

1. Automotive Noise, Vibration and Harshness (NVH)
2. Automotive Aerodynamics
3. Fuels, Combustion and Emission Control
4. Automotive Control Systems
5. Energy Engineering

*3rd*  
**HEAD, DEPARTMENT OF**  
**AUTOMOBILE ENGINEERING**  
 Sanjeevan Engg. & Tech. Institute  
 Somwar Peth, Panhala - 416 201  
 year: 2017-18



## FINAL YEAR CIVIL ENGINEERING

## SYLLABUS STRUCTURE

## B. E. CIVIL ENGINEERING SEMESTER-VII

Sr. No.	Subject	Teaching scheme per week					Examination scheme				
		L	P	T	D	Total	Theory paper	TW	POE	OE	Total
1	Design of Concrete Structure -I	4	2	---	---	6	100	25	---	---	125
2	Earthquake Engineering	3	2	---	---	5	100	50	---	---	150
3	Quantity Surveying & Valuation	3	4	---	---	7	100	50	---	25	175
4	Project Management & Construction Equipments	3	2	---	---	5	100	25	---	25	150
5	Elective-I	3	2	---	---	5	100	25	---	---	125
6	Project	---	2	---	---	2	---	50	---	---	50
7	Report on Field Training #	---	---	---	---	---	---	25	---	---	25
<b>Total</b>		<b>16</b>	<b>14</b>	<b>---</b>	<b>---</b>	<b>30</b>	<b>500</b>	<b>250</b>	<b>---</b>	<b>50</b>	<b>800</b>

# Assessment of Report on field training to be done by Project Guide along with Project Term Work Assessment Committee.

## B. E. CIVIL ENGINEERING SEMESTER-VIII

Sr. No.	Subject	Teaching scheme per week					Examination scheme				
		L	P	T	D	Total	Theory paper	TW	POE	OE	Total
1	Design of Concrete Structure -II	4	2	---	---	6	100	25	---	---	125
2	Water Resources Engineering-II	3	2	---	---	5	100	25	---	25	150
3	Transportation Engineering-II	3	---	---	---	3	100	---	---	---	100
4	*Elective-II	3	---	---	---	3	100	---	---	---	100
5	**Elective-III	3	---	---	---	3	100	---	---	---	100
6	SDD-II	--	---	---	4	4	---	50	---	25	75
7	Project	--	6	---	---	6	---	75	75	---	150
<b>Total</b>		<b>16</b>	<b>10</b>	<b>---</b>	<b>4</b>	<b>30</b>	<b>500</b>	<b>175</b>	<b>75</b>	<b>50</b>	<b>800</b>

\*Elective II from structure group

\*\*Elective III from non-structure group



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Experimental Stress Analysis .....	17
Advanced Foundation Engineering .....	19
Advanced Traffic Engineering.....	21
Advanced Engineering Geology .....	25
Open Channel Hydraulics.....	28
Remote Sensing And G.I.S In Civil Engineering .....	30
Solid Waste Management .....	33
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Ground Improvement Techniques.....	36

## FINAL YEAR CIVIL ENGINEERING

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**SEMESTER VII**

Course Code	Course	Teaching Scheme			Examination Scheme				
		L	P	T	Theory	TW	POE	OE	Total
CS7C01	Advanced Computer Architecture	4	-	1	100	25	-		125
CS7L02	Distributed Systems	3	2	-	100	25	-		125
CS7L03	Advanced Database Systems	3	2	-	100	25	-	50	175
CS7E04	Elective – I	3	-	1	100	25	-		125
CS7L05	Web Technologies – I	3	4	-	-	50	50		100
CS7L06	Project – I	-	4	-	-	75	-	75	150
	<b>Total</b>	<b>16</b>	<b>12</b>	<b>2</b>	<b>400</b>	<b>225</b>	<b>50</b>	<b>125</b>	<b>800</b>

**SEMESTER VIII**

Course Code	Course	Teaching Scheme			Examination Scheme				
		L	P	T	Theory	TW	POE	OE	Total
CS8C01	Data Analytics	4	2	-	100	25		50	175
CS8C02	Project Management	3	-	-	100	-		-	100
CS8C03	Real-time Operating System	4	-	1	100	25		-	125
CS8E04	Elective – II	3	-	1	100	25		-	125
CS8L05	Web Technologies – II	2	4	-	-	50	50	-	100
CS8L06	Project – II	-	4	-	-	75		75	150
CS8L07	Community Services	-	2	-	-	25		-	25
	<b>Total</b>	<b>16</b>	<b>12</b>	<b>2</b>	<b>400</b>	<b>225</b>	<b>50</b>	<b>125</b>	<b>800</b>

**Elective – I**

- A. Soft Computing
- B. Mobile Applications
- C. Adhoc Wireless Networks

**Elective – II**

- A. Internet of Things
- B. Software Testing and Quality Assurance
- C. Introduction to Mainframes



Academic Year 2017-18

Shivaji University, Kolhaour  
Faculty of Engineering and Technology  
Electrical Engineering  
Structure for BE Electrical

Semester VII

Sr. No	Category	Course Title	L	T	P	Contact Hours	Marks			
							Theory	T W	POE	Total
1	EE	Industrial Training		1		1		50		50
2	ES	Economics for Engineers	2			2	50			50
3	EE	Advanced Switchgear and Protection	4		2	6	100	25	50	175
4		Power Quality and Harmonics	3	1		4	100	25		125
5	EE	Computer Methods in Power Systems	4		2	6	100	25	25	150
6	EE	Elective I	4			4	100			100
7	EE	Seminar			2	2		50		50
8	EE	Project Phase I			4	4		50	50	100
			17	2	10	29	450	225	125	800

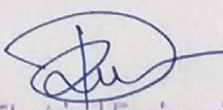
Elective I

1. FACTS

2. Signal Processing For Electrical Engg.

3. Industrial Automation and SCADA

4. Restructured Power Systems

  
(Head Electrical Engineering Dept.)  
SANJEEVAN ENGINEERING AND  
TECHNOLOGY INSTITUTE, PANHALA  
Pomwar Peth, Tal. Panhala, Dist. Kolhapur-416 201  
MAHARASHTRA, INDIA.

Academic Year 2017-18

Semester VIII

Sr. No	Category	Course Title	L	T	P	Contact Hours	Marks			
							Theory	T W	POE	Total
1	ES	Law for Engineers	2			2	50			50
2	EE	HVDC Systems	4		2	6	100		50	150
3	EE	EHVAC	4			4	100			100
4	EE	Electrical Generation and Utilization	4	2		6	100	50		150
5	EE	Elective II	4		2	6	100	50		150
6	EE	Project Phase II			6	6		100	100	200
			18	2	10	30	450	200	150	800

**Elective II**

**1. Embedded Systems**

**2. High Voltage Engineering**

**3. Advanced Relaying**

**4. Electrical maintenance and electrical energy audit.**

(Head Electrical Engineering Dept.)  
 SANJEEVAN ENGINEERING AND  
 TECHNOLOGY INSTITUTE, PANHALA  
 Komwar Peth, Tal. Panhala, Dist. Kolhapur-416 20  
 MAHARASHTRA, INDIA



Academic Year 2017-2018

**Shivaji University, Kolhapur**  
**Revised Syllabus Structure of Final Year Engineering (BE) (w. e. f. July 2016)**  
**Electronics and Telecommunication Engineering Course**  
**Scheme of Teaching and Examination**  
**Semester-VII**

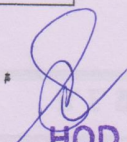
Sr. No.	Subject	Teaching Scheme (Hrs.)				Examination Scheme (Marks)				
		L	T	P	Total	Theory	TW	POE	OE	Total
1	Satellite Communication	3	1	--	4	100	25	--	--	125
2	Embedded System	4	--	2	6	100	25	50	--	175
3	Computer Communication Networks	4	--	2	6	100	25	--	25	150
4	RF & Microwave Engineering	4	-	2	6	100	25	--	--	125
5	Elective-I	3	1	--	4	100	25	--	--	125
6	Industrial Training	--	--	--	---	--	25*	--	--	25
7	Project Phase-I	--	--	2	2	--	25	--	50	75
		18	2	08	28	500	175	50	75	800

\* Assessment will be carried out with Project Phase – I By Internal Guide.

**Semester-VIII**

Sr. No.	Subject	Teaching Scheme(Hrs.)				Examination Scheme(Marks)				
		L	T	P	Total	Theory	TW	POE	OE	Total
1	Video Engineering	4	--	2	6	100	25	50	--	175
2	Wireless Mobile Communication	4	--	2	6	100	25	--	--	125
3	Digital Image Processing	4	--	2	6	100	25	--	50	175
4	Elective-II	3	1	--	4	100	25	--	--	125
5	Project Phase – II	--	--	4	4	--	100	--	100	200
		15	01	10	26	400	200	50	150	800

BE Part-I (Elective-I)	BE Part-II ( Elective-II)
1. Robotics	1. Mechatronics
2. Speech processing	2. Artificial Neural Network
3. MEMS	3. Remote Sensing & GPS
4. Radar & Navigation Aids	4. Operating System

  
**HOD**  
 Electronics & Telecommunication Engg.  
 Sanjeevan Engg. & Tech. Institute  
 Samwar Peth, Panhala - 416 201



## SHIVAJI UNIVERSITY, KOLHAPUR,

## Structure of B.E. (MECHANICAL ENGINEERING) Semester VII

WITH EFFECT FROM THE ACADEMIC YEAR JUNE/JULY 2016-2017

Sr. No.	Course Title	Teaching Scheme				Examination Scheme				
		L	T	P	Total Hrs.	TP	TW	OE	POE	Total Marks
1	Refrigeration and Air Conditioning	3	-	2	5	100	25	-	25	150
2	Mechanical System Design	3	-	2	5	100	25	25	-	150
3	Finite Element Analysis	3	-	2	5	100	25	-	-	125
4	Elective I	3	-	2	5	100	25	-	-	125
5	Elective II	3	-	2	5	100	25	-	-	125
6	Industrial Training @	-	-	-	0	-	50	-	-	50
7	Project Phase -I	-	*1	2	2	-	50	25	-	75
<b>Total</b>		15	01	12	27	500	225	50	25	800

\* The contact hours will be in the above proportion for faculty guiding more number of groups.

Sr. No.	Elective I	Elective II
1	Experimental Mechanics	Total Quality Management
2	Human and Professional Ethics	Industrial Product Design
3	Automobile Engineering	Advanced Forming Processes
4	Computational Fluid Dynamics	Design of Thermal Systems
5	Process Equipment Design	Smart Materials
6	Advanced Foundry Processes	Design for Sustainability
7	Introduction to Aircraft Systems	Flexible Manufacturing Systems

L: Lecture, T: Tutorial, P: Practical, TP: Theory Paper, TW: Term Work, OE: Oral Exam., POE: Practical and Oral Exam.

@ Industrial training of minimum two (2) weeks should be done after T.E. (II) in summer vacation and it's assessment will be done in B.E. (I) based on report submitted Work load of the assessment can be assigned to the project seminar guide.

S. E. A. K. -  
HOD  
Mechanical Engineering

Academic Year 2017-18

SHIVAJI UNIVERSITY, KOLHAPUR,

Structure of B.E. (MECHANICAL ENGINEERING) Semester VIII

WITH EFFECT FROM THE ACADEMIC YEAR JUNE/JULY 2016-2017

Sr. No.	Course Title	Teaching Scheme				Examination Scheme				
		L	T	P	Total Hrs.	TP	TW	OE	POE	Total Marks
1	Mechatronics	3	-	2	5	100	25	25	-	150
2	Energy and Power Engineering	3	-	2	5	100	25	-	-	125
3	Noise and Vibration	3	-	2	5	100	25	25	-	150
4	Elective III	3	-	2	5	100	25	-	-	125
5	Elective IV	3	-	2	5	100	25	-	-	125
6	Project Phase -II	-	*2	4	4	-	50	75	-	125
<b>Total</b>		15	02	14	29	500	175	125	00	800

\* The contact hours will be in the above proportion for faculty guiding more number of groups.

Sr. No.	Elective III	Elective IV
1	Industrial Engineering	Industrial Automation and Robotics
2	Production Management	Cryogenics
3	Fracture Mechanics	Enterprise Resource Planning
4	Reliability Engineering	Micro Electro Mechanical Systems
5	Advanced I.C. Engine	Advanced Refrigeration
6	Machine Tool Design	Tribology
7	Design of Aircraft Systems	Precision Engineering

L: Lecture, T: Tutorial, P: Practical, TP: Theory Paper, TW: Term Work. OE: Oral Exam. , POE: Practical and Oral Exam.

*[Signature]*  
28/12/16  
HOD  
Mechanical Engineering  
Sri Chaitanya Engg. & Tech Institute Panhala



**Shivaji University, Kolhapur**  
**Structure of Final Year Engineering (Revised)**  
 (To be implemented from Academic year 2016-17)  
**Automobile Engineering**  
**Scheme of Teaching and Examination**  
**Semester-VII**

Sr.No.	Subject	Teaching Scheme (Hrs.)				Examination Scheme(Marks)				
		L	T	P	Total	Theory	T/W	OE	POE	Total
01	I.C. Engine Design	3	---	2	5	100	25	---	---	125
02	Vehicle Dynamics	3	---	2	5	100	25	---	---	125
03	Finite Element Analysis	3	---	2	5	100	25	25	---	150
04	Vehicle Maintenance	3	---	2	5	100	25	---	---	125
05	<b>Elective-I</b>	3	---	---	3	100	---	---	---	100
06	I.C. Engine Testing Lab	---	---	2	2	---	25	---	25	50
07	Automotive Industrial Training	---	---	---	---	---	25*	---	---	25
08	Project Phase-I	---	---	2	2	---	50	50	---	100
Total		15	---	12	27	500	200	75	25	800

\* Assessment of Automotive Industrial Training will be carried out with Project Phase-I

**Semester-VIII**

Sr.No.	Subject	Teaching Scheme (Hrs.)				Examination Scheme(Marks)				
		L	T	P	Total	Theory	T/W	OE	POE	Total
01	Alternative Fuels and Emission	3	---	2	5	100	25	---	---	125
02	Automotive Electronics	3	---	2	5	100	25	---	---	125
03	Automotive System Design	3	---	2	5	100	25	25	---	150
04	Vehicle Performance and Testing	3	---	2	5	100	25	25	---	150
05	<b>Elective-II</b>	3	---	---	3	100	---	---	---	100
06	Project Phase-II	---	---	4	4	---	75	75	---	150
Total		15	---	12	27	500	175	125	---	800

**Elective -I**

1. Advanced Engine Technology
2. Computational Fluid Dynamics
3. Tribology
4. Optimizations Methods in Engineering Design
5. **Transport Management**

**Elective-II**

1. Automotive Noise, Vibration and Harshness (NVH)
2. Automotive Aerodynamics
3. Fuels, Combustion and Emission Control
4. Automotive Control Systems
5. **Energy Engineering**

HEAD, DEPARTMENT OF  
 AUTOMOBILE ENGINEERING  
 Sanjayrao Chavan & Tech. Institute  
 Sonawati, Peth, Panhala - 416 201  
 Year: 2016-17



## FINAL YEAR CIVIL ENGINEERING

## SYLLABUS STRUCTURE

## B. E. CIVIL ENGINEERING SEMESTER-VII

Sr. No.	Subject	Teaching scheme per week					Examination scheme				
		L	P	T	D	Total	Theory paper	TW	POE	OE	Total
1	Design of Concrete Structure -I	4	2	---	---	6	100	25	---	---	125
2	Earthquake Engineering	3	2	---	---	5	100	50	---	---	150
3	Quantity Surveying & Valuation	3	4	---	---	7	100	50	---	25	175
4	Project Management & Construction Equipments	3	2	---	---	5	100	25	---	25	150
5	Elective-I	3	2	---	---	5	100	25	---	---	125
6	Project	---	2	---	---	2	---	50	---	---	50
7	Report on Field Training #	---	---	---	---	---	---	25	---	---	25
<b>Total</b>		<b>16</b>	<b>14</b>	<b>---</b>	<b>---</b>	<b>30</b>	<b>500</b>	<b>250</b>	<b>---</b>	<b>50</b>	<b>800</b>

# Assessment of Report on field training to be done by Project Guide along with Project Term Work Assessment Committee.

## B. E. CIVIL ENGINEERING SEMESTER-VIII

Sr. No.	Subject	Teaching scheme per week					Examination scheme				
		L	P	T	D	Total	Theory paper	TW	POE	OE	Total
1	Design of Concrete Structure -II	4	2	---	---	6	100	25	---	---	125
2	Water Resources Engineering-II	3	2	---	---	5	100	25	---	25	150
3	Transportation Engineering-II	3	---	---	---	3	100	---	---	---	100
4	*Elective-II	3	---	---	---	3	100	---	---	---	100
5	**Elective-III	3	---	---	---	3	100	---	---	---	100
6	SDD-II	--	---	---	4	4	---	50	---	25	75
7	Project	--	6	---	---	6	---	75	75	---	150
<b>Total</b>		<b>16</b>	<b>10</b>	<b>---</b>	<b>4</b>	<b>30</b>	<b>500</b>	<b>175</b>	<b>75</b>	<b>50</b>	<b>800</b>

\*Elective-II from structure group

\*\*Elective III from non-structure group

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Design Of Concrete Structures-I.....	2
Earthquake Engineering .....	4
Quantity Surveying And Valuation.....	7
Project Management And Construction Equipments .....	10
Project Work- (Phase –I) .....	12
Assessment On Report Of Field Training .....	13
<b>ELECTIVE –I</b> .....	<b>14</b>
Advanced Structural Analysis.....	15
Experimental Stress Analysis .....	17
Advanced Foundation Engineering .....	19
Advanced Traffic Engineering.....	21
Advanced Engineering Geology .....	25
Open Channel Hydraulics .....	28
Remote Sensing And G.I.S In Civil Engineering .....	30
Solid Waste Management .....	33
Optimization Techniques.....	35
Ground Improvement Techniques.....	36

## FINAL YEAR CIVIL ENGINEERING

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### SEMESTER VII

Course Code	Course	Teaching Scheme			Examination Scheme				
		L	P	T	Theory	TW	POE	OE	Total
CS7C01	Advanced Computer Architecture	4	-	1	100	25	-		125
CS7L02	Distributed Systems	3	2	-	100	25	-		125
CS7L03	Advanced Database Systems	3	2	-	100	25	-	50	175
CS7E04	Elective - I	3	-	1	100	25	-		125
CS7L05	Web Technologies - I	3	4	-	-	50	50		100
CS7L06	Project - I	-	4	-	-	75	-	75	150
	<b>Total</b>	<b>16</b>	<b>12</b>	<b>2</b>	<b>400</b>	<b>225</b>	<b>50</b>	<b>125</b>	<b>800</b>

### SEMESTER VIII

Course Code	Course	Teaching Scheme			Examination Scheme				
		L	P	T	Theory	TW	POE	OE	Total
CS8C01	Data Analytics	4	2	-	100	25		50	175
CS8C02	Project Management	3	-	-	100	-		-	100
CS8C03	Real-time Operating System	4	-	1	100	25		-	125
CS8E04	Elective - II	3	-	1	100	25		-	125
CS8L05	Web Technologies - II	2	4	-	-	50	50	-	100
CS8L06	Project - II	-	4	-	-	75		75	150
CS8L07	Community Services	-	2	-	-	25		-	25
	<b>Total</b>	<b>16</b>	<b>12</b>	<b>2</b>	<b>400</b>	<b>225</b>	<b>50</b>	<b>125</b>	<b>800</b>

#### **Elective - I**

- A. Soft Computing
- B. ✓ Mobile Applications
- C. Adhoc Wireless Networks

#### **Elective - II**

- A. Internet of Things
- B. ✓ Software Testing and Quality Assurance
- C. Introduction to Mainframes

Academic Year 2016-17

Shivaji University, Kolhaour  
Faculty of Engineering and Technology  
Electrical Engineering  
Structure for BE Electrical

Semester VII

Sr. No	Category	Course Title	L	T	P	Contact Hours	Marks			
							Theory	T W	POE	Total
1	EE	Industrial Training		1		1		50		50
2	ES	Economics for Engineers	2			2	50			50
3	EE	Advanced Switchgear and Protection	4		2	6	100	25	50	175
4		Power Quality and Harmonics	3	1		4	100	25		125
5	EE	Computer Methods in Power Systems	4		2	6	100	25	25	150
6	EE	Elective I	4			4	100			100
7	EE	Seminar			2	2		50		50
8	EE	Project Phase I			4	4		50	50	100
			17	2	10	29	450	225	125	800

Elective I

1. FACTS

2. Signal Processing For Electrical Engg.
3. Industrial Automation and SCADA
4. Restructured Power Systems

(Head Electrical Engineering Dept.)

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TECHNOLOGY INSTITUTE, PANHALA

Tomwar Peth, Tal. Panhala, Dist. Kolhapur-416 20



Academic Year 2016-17

Semester VIII

Sr. No	Category	Course Title	L	T	P	Contact Hours	Marks			
							Theory	T W	POE	Total
1	ES	Law for Engineers	2			2	50			50
2	EE	HVDC Systems	4		2	6	100		50	150
3	EE	EHVAC	4			4	100			100
4	EE	Electrical Generation and Utilization	4	2		6	100	50		150
5	EE	Elective II	4		2	6	100	50		150
6	EE	Project Phase II			6	6		100	100	200
			18	2	10	30	450	200	150	800

**Elective II**

**1. Embedded Systems**

**2. High Voltage Engineering**

**3. Advanced Relaying**

**4. Electrical maintenance and electrical energy audit.**

(Head Electrical Engineering Dept.,  
SANJEEVAN ENGINEERING AND  
TECHNOLOGY INSTITUTE, PANHALA  
Mwar Peth, Tal. Panhala, Dist. Kolhapur-416 201  
MAHARASHTRA, INDIA



*Academic Year 2016 - 2017*

**Shivaji University, Kolhapur**  
**Revised Syllabus Structure of Final Year Engineering (BE) (w. e. f. July 2016)**  
**Electronics and Telecommunication Engineering Course**  
**Scheme of Teaching and Examination**  
**Semester-VII**

Sr. No.	Subject	Teaching Scheme (Hrs.)				Examination Scheme (Marks)				
		L	T	P	Total	Theory	TW	POE	OE	Total
1	Satellite Communication	3	1	--	4	100	25	--	--	125
2	Embedded System	4	--	2	6	100	25	50	--	175
3	Computer Communication Networks	4	--	2	6	100	25	--	25	150
4	RF & Microwave Engineering	4	-	2	6	100	25	--	--	125
5	Elective-I	3	1	--	4	100	25	--	--	125
6	Industrial Training	--	--	--	---	--	25*	--	--	25
7	Project Phase-I	--	--	2	2	--	25	--	50	75
		18	2	08	28	500	175	50	75	800

\* Assessment will be carried out with Project Phase – I By Internal Guide.

**Semester-VIII**

Sr. No.	Subject	Teaching Scheme(Hrs.)				Examination Scheme(Marks)				
		L	T	P	Total	Theory	TW	POE	OE	Total
1	Video Engineering	4	--	2	6	100	25	50	--	175
2	Wireless Mobile Communication	4	--	2	6	100	25	--	--	125
3	Digital Image Processing	4	--	2	6	100	25	--	50	175
4	Elective-II	3	1	--	4	100	25	--	--	125
5	Project Phase – II	--	--	4	4	--	100	--	100	200
		15	01	10	26	400	200	50	150	800

BE Part-I (Elective-I)	BE Part-II ( Elective-II)
1. Robotics	1. Mechatronics
2. Speech processing	2. Artificial Neural Network
3. MEMS	3. Remote Sensing & GPS
4. Radar & Navigation Aids	4. Operating System

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**Electronics & Telecommunication Engg.**  
**Sanjeevan Engg. & Tech. Institute**  
**Somwar Peth, Panhala - 416 201**



## SHIVAJI UNIVERSITY, KOLHAPUR,

## Structure of B.E. (MECHANICAL ENGINEERING) Semester VII

WITH EFFECT FROM THE ACADEMIC YEAR JUNE/JULY 2016-2017

Sr. No.	Course Title	Teaching Scheme				Examination Scheme				
		L	T	P	Total Hrs.	TP	TW	OE	POE	Total Marks
1	Refrigeration and Air Conditioning	3	-	2	5	100	25	-	25	150
2	Mechanical System Design	3	-	2	5	100	25	25	-	150
3	Finite Element Analysis	3	-	2	5	100	25	-	-	125
4	Elective I	3	-	2	5	100	25	-	-	125
5	Elective II	3	-	2	5	100	25	-	-	125
6	Industrial Training @	-	-	-	0	-	50	-	-	50
7	Project Phase -I	-	*1	2	2	-	50	25	-	75
<b>Total</b>		15	01	12	27	500	225	50	25	800

\* The contact hours will be in the above proportion for faculty guiding more number of groups.

Sr. No.	Elective I	Elective II
1	Experimental Mechanics	Total Quality Management
2	Human and Professional Ethics	Industrial Product Design
3	Automobile Engineering	Advanced Forming Processes
4	Computational Fluid Dynamics	Design of Thermal Systems
5	Process Equipment Design	Smart Materials
6	Advanced Foundry Processes	Design for Sustainability
7	Introduction to Aircraft Systems	Flexible Manufacturing Systems

L: Lecture, T: Tutorial, P: Practical, TP: Theory Paper, TW: Term Work, OE: Oral Exam., POE: Practical and Oral Exam.

@ Industrial training of minimum two (2) weeks should be done after T.E. (II) in summer vacation and it's assessment will be done in B.E. (I) based on report submitted Work load of the assessment can be assigned to the project seminar guide.



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Academic Year 2016-17

SHIVAJI UNIVERSITY, KOLHAPUR,

Structure of B.E. (MECHANICAL ENGINEERING) Semester VIII

WITH EFFECT FROM THE ACADEMIC YEAR JUNE/JULY 2016-2017

Sr. No.	Course Title	Teaching Scheme				Examination Scheme				
		L	T	P	Total Hrs.	TP	TW	OE	POE	Total Marks
1	Mechatronics	3	-	2	5	100	25	25	-	150
2	Energy and Power Engineering	3	-	2	5	100	25	-	-	125
3	Noise and Vibration	3	-	2	5	100	25	25	-	150
4	Elective III	3	-	2	5	100	25	-	-	125
5	Elective IV	3	-	2	5	100	25	-	-	125
6	Project Phase -II	-	*2	4	4	-	50	75	-	125
<b>Total</b>		15	02	14	29	500	175	125	00	800

\* The contact hours will be in the above proportion for faculty guiding more number of groups.

Sr. No.	Elective III	Elective IV
1	Industrial Engineering	Industrial Automation and Robotics
2	Production Management	Cryogenics
3	Fracture Mechanics	Enterprise Resource Planning
4	Reliability Engineering	Micro Electro Mechanical Systems
5	Advanced I.C. Engine	Advanced Refrigeration
6	Machine Tool Design	Tribology
7	Design of Aircraft Systems	Precision Engineering

L: Lecture, T: Tutorial, P: Practical, TP: Theory Paper, TW: Term Work, OE: Oral Exam. , POE: Practical and Oral Exam.

  
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Mechanical Engineering  
Sanjeevan Engg. & Tech. Institute, Panhala



# Shivaji University, Kolhapur

## Syllabus Structure of Final Year (B. E. Auto-I) Automobile Engineering Course

### Scheme of Teaching and Examination

#### SEMESTER - VII

Sr. No.	Name of the Subject	Teaching Scheme (Hrs)			Examination Scheme (Marks)			
		L	T	P	Theory	TW	Pract./ Oral	Total
1	Engine & Machine Design	4	—	4	100	25	25	150
2	Vehicle Dynamics	3	—	—	100	—	—	100
3	Finite Element Analysis	3	—	2	100	25	—	125
4	Alternative Fuels & Emission	3	—	2	100	25	25	150
5	Electives - I	3	—	2	100	25	—	125
6	Industrial Case Study Evaluation	—	—	2*	—	25	—	25
7	Engine Testing	—	—	2	—	25	50	75
	Project Phase I	—	—	2*	—	50	—	50
		16	—	14	500	200	100	800
Total Contact Hours per week				30	Total Marks			800

\* Combine utilization for project phase I and industrial case study evaluation

Sr. No.	Electives - I
1	Noise and Vibration
2	Energy Engineering
3	Computer Integrated Manufacturing Systems
4	Industrial Product Design
5	Production Management

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 HEAD, DEPARTMENT OF  
 AUTOMOBILE ENGINEERING  
 Sanjeevan Engg. & Tech. Institute  
 Sonawar Peth, Panhala - 416 201  
 Year: 2015-16



# Shivaji University, Kolhapur

Syllabus Structure of Final Year (B. E. Auto.-II) Automobile Engineering Course


*Scheme of Teaching and Examination*

## SEMESTER – VIII

Sr. No.	Name of the Subject	Teaching Scheme (Hrs)			Examination Scheme (Marks)			
		L	T	P	Theory	TW	Pract./ Oral	Total
1	Refrigeration & Air Conditioning	3	--	2	100	25	--	125
2	Automotive Electronics	3	--	2	100	25	--	125
3	Automotive System Design	3	--	4	100	25	25	150
4	Vehicle Performance	3	--	2	100	25	25	150
5	Elective – II	3	--	--	100	--	--	100
6	Project	--	--	5	--	75	75	150
		15	--	15	500	175	125	800
Total Contact Hours per week				30	Total Marks			800

Sr. No.	Elective- II
1	Transport Management
2	Entrepreneurship Development
3	Tractor and Farm Equipment
4	Maintenance Management
5	Operation Research

[Note :- Examination scheme and term work marks strictly as per above structure]

  
**HEAD, DEPARTMENT OF**  
**AUTOMOBILE ENGINEERING**  
 Sanjeevan Engg. & Tech. Institute  
 Somwar Peth, Panhala - 416 201  
 Year: 2015-16



## Final Year Civil Engineering SYLLABUS STRUCTURE

### B.E. Civil Engineering Semester-VII

Sr. No.	Subject	Teaching Scheme per week					Examination Scheme (marks)				
		L	P	T	D	Total	Theory Paper	TW	POE	OE	Total
1	Design of Concrete Structures-I	4	-	-	-	4	100	-	-	-	100
2	Quantity Survey and Valuation	4	4	-	-	8	100	50	-	25	175
3	Earthquake Engineering	3	2	-	-	5	100	25	-	-	125
4	Transportation Engineering	4	2	-	-	6	100	25	-	25	150
5	Elective-I	3	2	-	-	5	100	25	-	25	150
6	Project Work	-	2	-	-	2	-	75	-	-	75
7	Report on Field Training #	-	-	-	-	-	-	25	-	-	25
<b>TOTAL</b>		<b>18</b>	<b>12</b>	<b>-</b>	<b>-</b>	<b>30</b>	<b>500</b>	<b>225</b>	<b>-</b>	<b>75</b>	<b>800</b>

# Assessment of Report on Field Training to be done Project Guide along with Project Term Work Assessment Committee

### B.E. Civil Engineering Semester-VIII

Sr. No.	Subject	Teaching Scheme per week					Examination Scheme (marks)				
		L	P	T	D	Total	Theory Paper	TW	POE	OE	Total
1	Town Planning & Transportation Engineering	4	-	-	-	4	100	-	-	-	100
2	Construction Practices	4	-	-	-	4	100	-	-	-	100
3	Design of Concrete Structures-II	4	2	-	-	6	100	25	-	-	125
4	Elective-II	3	2	-	-	5	100	25	-	25	150
5	Elective-III	3	-	-	-	3	100	-	-	-	100
6	Structural Design and Drawing - II	-	-	-	4	4	-	50	-	25	75
7	Project Work	-	6	-	-	6	-	75	-	75	150
<b>TOTAL</b>		<b>18</b>	<b>10</b>	<b>-</b>	<b>4</b>	<b>32</b>	<b>500</b>	<b>175</b>	<b>-</b>	<b>125</b>	<b>800</b>

[Note :- Examination scheme and term work marks strictly as per above structure]

<b>Elective I</b>	
•	Advanced Structural Analysis
•	Experimental Stress Analysis
•	Finite Element Method
•	Advanced Foundation Engineering
•	Transportation Infrastructure Planning and Demand Estimation
•	Advanced Engineering geology
•	Open channel Hydraulics
•	Human Resource Development
•	Project Appraisal
•	Solid Waste Management



Elective II
• Advance Concrete design
• Design Of Industrial Structure
• Analysis and Design of Earthquake Resisting Structure
• Structural Design of Foundation and Retaining Structures
• Pavement Analysis, Design and Evaluation
• Remote sensing applications in civil engineering
• Hydrology and Watershed Management
• Site investigation methods and practices
• Entrepreneurships
• Air Pollution & Control

<b>Elective III</b>	
•	Advance Prestressed Concrete Design
•	Design of Bridges
•	Dynamics of Structure
•	Ground Improvement
•	Project Planning, Economics and Financing
•	Rock Mechanics
•	Water Power Engineering
•	Advance Construction Techniques
•	Optimization technique
•	Industrial Waste Treatment



**SEMESTER VII**

Sr. No.	Subject Name	L	T	P	Theory Marks	T/W	Oral	POE	Total Marks
1	Advanced Computer Architecture	4	1	-	100	25	-	-	125
2	Distributed Systems	3	-	2	100	25	-	-	125
3	Advanced Database Systems	3	-	2	100	25	25	-	150
4	Network Engineering	2	-	4	-	25	-	50	75
5	Elective - I	3	1	-	100	25	-	-	125
6	Community Services	-	-	2	-	25	-	-	25
7	Project - I	-	-	4	-	50	75	-	125
	<b>Total</b>	<b>15</b>	<b>2</b>	<b>14</b>	<b>400</b>	<b>200</b>	<b>100</b>	<b>50</b>	<b>750</b>

**SEMESTER VIII**

Sr. No.	Subject Name	L	T	P	Theory Marks	T/W	Oral	POE	Total Marks
1	Grid Technology	4	-	2	100	25	25	-	150
2	Storage Networks	3	1	-	100	25	-	-	125
3	Real Time Operating System	4	1	-	100	25	-	-	125
4	Web Technology	3	-	4	-	50	-	50	100
5	Elective - II	3	1	-	100	25	-	-	125
6	Project - II	-	-	4	-	50	75	-	125
	<b>Total</b>	<b>17</b>	<b>3</b>	<b>10</b>	<b>400</b>	<b>200</b>	<b>100</b>	<b>50</b>	<b>750</b>

**Elective - I**

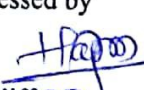
1. Soft Computing
2. Project Management
3. ✓ Cyber Laws

**Elective - II**

1. Data Mining
2. Ad hoc Networks
3. ✓ Business Intelligence System

**Note:**

1. The term work as prescribed in the syllabus is to be periodically and jointly assessed by a team of teachers from the concerned department.
2. In case of tutorials, students of different batches be assigned problems of different types and be guided for the solution of the problem during tutorial session.

  
 Department of Computer Science  
 & Engineering  
 Sanjeevan Engg. & Tech. Institute  
 Somwar Peth, Panhala - 416 201

Sr. No.	Subject	Teaching Scheme		Examination Scheme				
		L	P	Theory	TW	POE	OE	TOTAL
1	Electrical Drives and Control	4	2	100	25	25	--	150
2	High Voltage Engineering	3	2	100	50	--	--	150
3	Advanced Switchgear and Protection	4	2	100	25	--	25	150
4	Renewable Energy Sources	4	2	100	50	-	--	150
5	Elective-I	3	--	100	--	-	--	100
6	Project Phase-I	--	4	--	-	--	50	50
7	T.E. Vacation Training Evaluation	--	--	--	50	--	--	50
	Total	18	12	500	200	25	75	800

Academic Year 2015-16

B.E.(Electrical) PART-II SEM. VIII

Sr. No.	Subject	Teaching Scheme		Examination Scheme				
		L	P	Theory	TW	POE	OE	TOTAL
1	Electrical Utilization and traction	4	-	100	-	-	--	100
2	HVDC Systems	4	2	100	25	-	--	125
3	Electrical Installation, testing and maintenance	4	4	100	50	--	50	200
4	Elective -II	4	-	100	--	--	--	100
5	Electrical Machine Design Laboratory	-	4	--	50	--	50	100
5	Project Phase- II	--	4	--	75	--	100	175
	Total	16	14	400	200	--	200	800

## ELECTIVES (SEMISTER I):

1. FACTS
2. Digital Control System
3. Embedded System
4. Electrical Engineering Materials
5. Thermal Engineering

## ELECTIVES (SEMISTER II):

1. EHVAC
2. Computer Aided power Systems
3. Advanced Digital Signal Processing
4. Restructured Power Systems

[Note :- Examination scheme and term work marks strictly as per above structure]

(Head Electrical Engineering Dept.)

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# Academic Year 2015-2016

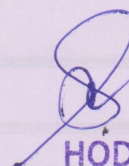
## B.E. (ELECTRONICS & TELECOMMUNICATION ENGG.) (Sem VII)

SR.NO	SUBJECT	TEACHING SCHEME				EXAM.SCHEME				
		L	T	P	Total	Paper	TW	POE	OE	Total
1.	Computer Communication Network	4	-	2	6	100	25	--*	50	175
2.	Wireless Communication	4	-	-	4	100	25	-	-	125
3.	Microwave Engineering	4	-	2	6	100	25	-	50	175
4.	Embedded Systems	4	-	2	6	100	25	50	-	175
5.	Elective-I	4	-	-	4	100	-	-	-	100
6.	Project	-	-	4	4	-	50	-	-	50
	TOTAL	20	-	10	30	500	150	50	100	800

## B.E. (ELECTRONICS & TELECOMMUNICATION ENGG.) (Sem VIII)

SR.NO	SUBJECT	TEACHING SCHEME				EXAM.SCHEME				
		L	T	P	Total	Paper	TW	POE	OE	Total
1.	Audio & Video Engg.	4	-	2	6	100	25	50	-	175
2.	Broadband Communication	4	-	2	6	100	25	--	--	125
3.	Image Processing	4	-	2	6	100	25	-	50	175
4.	Elective-II	4	-	-	4	100	25	-	-	125
5.	Project	-	-	8	8	-	100	-	100	200
	TOTAL	16	-	14	30	400	200	50	150	800

[Note :- Examination scheme and term work marks strictly as per above structure]

  
HOD



# Academic Year 2015-2016

B.E. (ELECTRONICS & TELECOMMUNICATION ENGG.) 2010-11

## B.E. Part-I

### Elective-I

1. Digital Signal Processors
2. Integrated Communication Systems
3. Satellite Communication
4. Remote sensing & GIS

## B.E. Part-II

### Elective-II

1. Speech Processing
2. Pattern Recognition
3. Mobile Communication
4. Real time Systems

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Electronics & Telecommunication Engg.  
Sanjeevan Engg. & Tech. Institute  
Somwar Peth, Panhala - 416 201



**SHIVAJI UNIVERSITY, KOLHAPUR**  
**Structure of B. E. (MECHANICAL ENGINEERING) Semesters VII & VII**

Sr. No.	Subject	L	TUT	P	Dr	Total	PT	TW	OE	POE	Total
1	Refrigeration & Air Conditioning	3	-	2	-	5	100	25	---	25	150
2	Mechanical System Design	3	-	2	-	5	100	25	25	--	50
3	Finite Element Analysis	3	-	2	-	5	100	25	--	--	25
4	Elective - I	3	-	2	-	5	100	25	--	25	150
5	Elective - II	3	-	2	-	5	100	25	--	--	125
6	Seminar	-	-	2	-	2	-	50	--	-	50
7	Project	-	-	3	-	3	-	50	--	-	50
8	Industrial Training @	-	-	-	-	-	-	50	--	-	50
	<b>Total</b>	<b>15</b>	<b>-</b>	<b>15</b>	<b>-</b>	<b>30</b>	<b>500</b>	<b>275</b>	<b>25</b>	<b>50</b>	<b>850</b>

Sr. No.	Elective I	Elective - II
01	Experimental Mechanics	Total Quality Management
02	Noise & Vibration	Nano Technology
03	Automobile Engineering	Industrial Product Design
04	Jigs and Fixture Design \$	Human Values And Professional Ethics

@ Industrial training of minimum two (2) weeks should be done after T.E. (II) in summer vacation and it's assessment will be done in B.E. (I) based on report submitted. Work load of the assessment can be assigned to the project seminar guide.

\$ The Theory of paper examination duration 4 hours

Unless mentioned, theory paper examination duration 3 hours

**B.E. (MECHANICAL ENGINEERING)**

Sr. No.	Subject	L	TUT	P	Dr	Total	PT	TW	OE	POE	Total
1	Mechatronics	3	-	2	-	5	100	25	25	--	150
2	Industrial Engineering	3	-	2	-	5	100	25	--	---	125
3	Power Engineering	3	-	2	-	5	100	25	25-	---	150
4	Elective III	3	-	2	-	5	100	25	--	---	125
5	Elective IV	3	-	2	-	5	100	25	--	---	125
6	Project	-	-	5	-	5	-	100	--	75	175
	<b>Total</b>	<b>15</b>	<b>-</b>	<b>15</b>	<b>-</b>	<b>30</b>	<b>500</b>	<b>225</b>	<b>50</b>	<b>75</b>	<b>850</b>

Sr. No.	Elective III	Elective IV
01	Production Management	Industrial Automation & Robotics
02	MEMS	Enterprise Resource Planning
03	Machine Tool Design	Cryogenics
04	Computational Fluid Dynamics	P.L.C. & SCADA Programing

[Note :- Examination scheme and term work marks strictly as per above structure]

# Shivaji University, Kolhapur

## Syllabus Structure of Final Year (B. E. Auto.-I) Automobile Engineering Course

### Scheme of Teaching and Examination

#### SEMESTER – VII

Sr. No.	Name of the Subject	Teaching Scheme (Hrs)			Examination Scheme (Marks)			
		L	T	P	Theory	TW	Pract./ Oral	Total
1	Engine & Machine Design	4	--	4	100	25	25	150
2	Vehicle Dynamics	3	--	--	100	--	--	100
3	Finite Element Analysis	3	--	2	100	25	--	125
4	Alternative Fuels & Emission	3	--	2	100	25	25	150
5	Electives – I	3	--	2	100	25	--	125
6	Industrial Case Study Evaluation	--	--	2*	--	25	--	25
7	Engine Testing	--	--	2	--	25	50	75
	Project Phase I	--	--	2*	--	50	--	50
		16	--	14	500	200	100	800
Total Contact Hours per week				30	Total Marks			800
* Combine utilization for project phase I and industrial case study evaluation								

Sr. No.	Electives – I
1	Noise and Vibration
2	Energy Engineering
3	Computer Integrated Manufacturing Systems
4	Industrial Product Design
5	Production Management

  
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 Year: 2014-15



# Shivaji University, Kolhapur

Syllabus Structure of Final Year (B. E. Auto.-II) Automobile Engineering Course

*Scheme of Teaching and Examination*

## SEMESTER – VIII

Sr. No.	Name of the Subject	Teaching Scheme (Hrs)			Examination Scheme (Marks)			
		L	T	P	Theory	TW	Pract./ Oral	Total
1	Refrigeration & Air Conditioning	3	--	2	100	25	--	125
2	Automotive Electronics	3	--	2	100	25	--	125
3	Automotive System Design	3	--	4	100	25	25	150
4	Vehicle Performance	3	--	2	100	25	25	150
5	Elective – II	3	--	--	100	--	--	100
6	Project	--	--	5	--	75	75	150
		15	--	15	500	175	125	800
Total Contact Hours per week				30	Total Marks			800

Sr. No.	Elective- II
1	Transport Management
2	Entrepreneurship Development
3	Tractor and Farm Equipment
4	Maintenance Management
5	Operation Research

[Note :- Examination scheme and term work marks strictly as per above structure]

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year 2014-15

## Final Year Civil Engineering SYLLABUS STRUCTURE

### B.E. Civil Engineering Semester-VII

Sr. No.	Subject	Teaching Scheme per week					Examination Scheme (marks)				
		L	P	T	D	Total	Theory Paper	TW	POE	OE	Total
1	Design of Concrete Structures-I	4	-	-	-	4	100	-	-	-	100
2	Quantity Survey and Valuation	4	4	-	-	8	100	50	-	25	175
3	Earthquake Engineering	3	2	-	-	5	100	25	-	-	125
4	Transportation Engineering	4	2	-	-	6	100	25	-	25	150
5	Elective-I	3	2	-	-	5	100	25	-	25	150
6	Project Work	-	2	-	-	2	-	75	-	-	75
7	Report on Field Training #	-	-	-	-	-	-	25	-	-	25
<b>TOTAL</b>		<b>18</b>	<b>12</b>	<b>-</b>	<b>-</b>	<b>30</b>	<b>500</b>	<b>225</b>	<b>-</b>	<b>75</b>	<b>800</b>

# Assessment of Report on Field Training to be done Project Guide along with Project Term Work Assessment Committee

### B.E. Civil Engineering Semester-VIII

Sr. No.	Subject	Teaching Scheme per week					Examination Scheme (marks)				
		L	P	T	D	Total	Theory Paper	TW	POE	OE	Total
1	Town Planning & Transportation Engineering	4	-	-	-	4	100	-	-	-	100
2	Construction Practices	4	-	-	-	4	100	-	-	-	100
3	Design of Concrete Structures-II	4	2	-	-	6	100	25	-	-	125
4	Elective-II	3	2	-	-	5	100	25	-	25	150
5	Elective-III	3	-	-	-	3	100	-	-	-	100
6	Structural Design and Drawing - II	-	-	-	4	4	-	50	-	25	75
7	Project Work	-	6	-	-	6	-	75	-	75	150
<b>TOTAL</b>		<b>18</b>	<b>10</b>	<b>-</b>	<b>4</b>	<b>32</b>	<b>500</b>	<b>175</b>	<b>-</b>	<b>125</b>	<b>800</b>

[Note :- Examination scheme and term work marks strictly as per above structure]

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<b>Elective I</b>	
•	Advanced Structural Analysis
•	Experimental Stress Analysis
•	Finite Element Method
•	Advanced Foundation Engineering
•	Transportation Infrastructure Planning and Demand Estimation
•	Advanced Engineering geology
•	Open channel Hydraulics
•	Human Resource Development
•	Project Appraisal
•	Solid Waste Management

<b>Elective II</b>	
•	Advance Concrete design
•	Design Of Industrial Structure
•	Analysis and Design of Earthquake Resisting Structure
•	Structural Design of Foundation and Retaining Structures
•	Pavement Analysis, Design and Evaluation
•	Remote sensing applications in civil engineering
•	Hydrology and Watershed Management
•	Site investigation methods and practices
•	Entrepreneurships
•	Air Pollution & Control



<b>Elective III</b>
• Advance Prestressed Concrete Design
• Design of Bridges
• Dynamics of Structure
• Ground Improvement
• Project Planning, Economics and Financing
• Rock Mechanics
• Water Power Engineering
• Advance Construction Techniques
• Optimization technique
• Industrial Waste Treatment

**SEMESTER VII**

Sr. No.	Subject Name	L	T	P	Theory Marks	T/W	Oral	POE	Total Marks
1	Advanced Computer Architecture	4	1	-	100	25	-	-	125
2	Distributed Systems	3	-	2	100	25	-	-	125
3	Advanced Database Systems	3	-	2	100	25	25	-	150
4	Network Engineering	2	-	4	-	25	-	50	75
5	Elective – I	3	1	-	100	25	-	-	125
6	Community Services	-	-	2	-	25	-	-	25
7	Project – I	-	-	4	-	50	75	-	125
	<b>Total</b>	<b>15</b>	<b>2</b>	<b>14</b>	<b>400</b>	<b>200</b>	<b>100</b>	<b>50</b>	<b>750</b>

**SEMESTER VIII**

Sr. No.	Subject Name	L	T	P	Theory Marks	T/W	Oral	POE	Total Marks
1	Grid Technology	4	-	2	100	25	25	-	150
2	Storage Networks	3	1	-	100	25	-	-	125
3	Real Time Operating System	4	1	-	100	25	-	-	125
4	Web Technology	3	-	4	-	50	-	50	100
5	Elective – II	3	1	-	100	25	-	-	125
6	Project – II	-	-	4	-	50	75	-	125
	<b>Total</b>	<b>17</b>	<b>3</b>	<b>10</b>	<b>400</b>	<b>200</b>	<b>100</b>	<b>50</b>	<b>750</b>

**Elective – I**

1. Soft Computing
2. Project Management
3. ✓ Cyber Laws

**Elective – II**

1. ✓ Data Mining
2. Ad hoc Networks
3. ✓ Business Intelligence System

**Note:**

1. The term work as prescribed in the syllabus is to be periodically and jointly assessed by a team of teachers from the concerned department.
2. In case of tutorials, students of different batches be assigned problems of different types and be guided for the solution of the problem during tutorial session. Problems

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Sr. No.	Subject	Teaching Scheme		Examination Scheme				
		L	P	Theory	TW	POE	OE	TOTAL
1	Electrical Drives and Control	4	2	100	25	25	--	150
2	High Voltage Engineering	3	2	100	50	--	--	150
3	Advanced Switchgear and Protection	4	2	100	25	--	25	150
4	Renewable Energy Sources	4	2	100	50	-	--	150
5	Elective-I	3	--	100	--	-	--	100
6	Project Phase-I	--	4	--	-	--	50	50
7	T.E. Vacation Training Evaluation	--	--	--	50	--	--	50
	Total	18	12	500	200	25	75	800

Academic Year 2014-15

B.E.(Electrical) PART-II SEM. VIII

Sr. No.	Subject	Teaching Scheme		Examination Scheme				
		L	P	Theory	TW	POE	OE	TOTAL
1	Electrical Utilization and traction	4	-	100	-	-	--	100
2	HVDC Systems	4	2	100	25	-	--	125
3	Electrical Installation, testing and maintenance	4	4	100	50	--	50	200
4	Elective -II	4	-	100	--	--	--	100
5	Electrical Machine Design Laboratory	-	4	--	50	--	50	100
5	Project Phase- II		4		75	--	100	175
	Total	16	14	400	200	--	200	800

**ELECTIVES (SEMISTER I):**

1. FACTS
2. Digital Control System
3. Embedded System
4. Electrical Engineering Materials
5. Thermal Engineering

**ELECTIVES (SEMISTER II):**

1. EHVAC
2. Computer Aided power Systems
3. Advanced Digital Signal Processing
4. Restructured Power Systems

[Note :- Examination scheme and term work marks strictly as per above structure]



# Academic Year 2014 - 2015

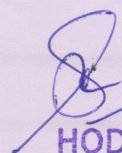
B.E. (ELECTRONICS & TELECOMMUNICATION ENGG.) (Sem VII)

SR.NO	SUBJECT	TEACHING SCHEME				EXAM.SCHEME				
		L	T	P	Total	Paper	TW	POE	OE	Total
1.	Computer Communication Network	4	-	2	6	100	25	--	50	175
2.	Wireless Communication	4	-	-	4	100	25	-	-	125
3.	Microwave Engineering	4	-	2	6	100	25	-	50	175
4.	Embedded Systems	4	-	2	6	100	25	50	-	175
5.	Elective-I	4	-	-	4	100	-	-	-	100
6.	Project	-	-	4	4	-	50	-	-	50
	TOTAL	20	-	10	30	500	150	50	100	800

B.E. (ELECTRONICS & TELECOMMUNICATION ENGG.) (Sem VIII)

SR.NO	SUBJECT	TEACHING SCHEME				EXAM.SCHEME				
		L	T	P	Total	Paper	TW	POE	OE	Total
1.	Audio & Video Engg.	4	-	2	6	100	25	50	-	175
2.	Broadband Communication	4	-	2	6	100	25	--	--	125
3.	Image Processing	4	-	2	6	100	25	-	50	175
4.	Elective-II	4	-	-	4	100	25	-	-	125
5.	Project	-	-	8	8	-	100	-	100	200
	TOTAL	16	-	14	30	400	200	50	150	800

[Note :- Examination scheme and term work marks strictly as per above structure]

  
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# Academic Year 2014-2015

B.E. (ELECTRONICS & TELECOMMUNICATION ENGG.) 2010-11

## B.E. Part-I

### Elective-I

1. Digital Signal Processors
2. Integrated Communication Systems
3. Satellite Communication
4. Remote sensing & GIS

## B.E. Part-II

### Elective-II

1. Speech Processing
2. Pattern Recognition
3. Mobile Communication
4. Real time Systems



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**SHIVAJI UNIVERSITY, KOLHAPUR**  
**Structure of B. E. (MECHANICAL ENGINEERING) Semesters VII & VII**

Sr. No.	Subject	L	TUT	P	Dr	Total	PT	TW	OE	POE	Total
1	Refrigeration & Air Conditioning	3	-	2	-	5	100	25	---	25	150
2	Mechanical System Design	3	-	2	-	5	100	25	25	--	150
3	Finite Element Analysis	3	-	2	-	5	100	25	--	--	125
4	Elective - I	3	-	2	-	5	100	25	--	25	150
5	Elective - II	3	-	2	-	5	100	25	--		125
6	Seminar	-	-	2	-	2	-	50	--	-	50
7	Project	-	-	3	-	3	-	50	--	-	50
8	Industrial Training @	-	-	-	-	-	-	50		-	50
	<b>Total</b>	<b>15</b>	<b>-</b>	<b>15</b>	<b>-</b>	<b>30</b>	<b>500</b>	<b>275</b>	<b>25</b>	<b>50</b>	<b>850</b>

Sr. No.	Elective I	Elective - II
01	Experimental Mechanics	Total Quality Management
02	Noise & Vibration	Nano Technology
03	Automobile Engineering	Industrial Product Design
04	Jigs and Fixture Design \$	Human Values And Professional Ethics

@ Industrial training of minimum two (2) weeks should be done after T.E. (II) in summer vacation and it's assessment will be done in B.E. (I) based on report submitted. Work load of the assessment can be assigned to the project seminar guide.

\$ The Theory of paper examination duration 4 hours

Unless mentioned, theory paper examination duration 3 hours

**B.E. (MECHANICAL ENGINEERING)**

Sr. No.	Subject	L	TUT	P	Dr	Total	PT	TW	OE	POE	Total
1	Mechatronics	3	-	2	-	5	100	25	25	--	150
2	Industrial Engineering	3	-	2	-	5	100	25	--	---	125
3	Power Engineering	3	-	2	-	5	100	25	25-	---	150
4	Elective III	3	-	2	-	5	100	25	--	---	125
5	Elective IV	3	-	2	-	5	100	25		---	125
6	Project	-	-	5	-	5	-	100		75	175
	<b>Total</b>	<b>15</b>	<b>-</b>	<b>15</b>	<b>-</b>	<b>30</b>	<b>500</b>	<b>225</b>	<b>50</b>	<b>75</b>	<b>850</b>

Sr. No.	Elective III	Elective IV
01	Production Management	Industrial Automation & Robotics
02	MEMS	Enterprise Resource Planning
03	Machine Tool Design	Cryogenics
04	Computational Fluid Dynamics	P.L.C. & SCADA Programing

[Note :- Examination scheme and term work marks strictly as per above structure]



# Shivaji University, Kolhapur

## Syllabus Structure of Final Year (B. E. Auto.-I) Automobile Engineering Course

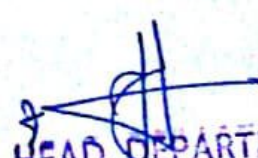
### Scheme of Teaching and Examination

#### SEMESTER – VII

Sr. No.	Name of the Subject	Teaching Scheme (Hrs)			Examination Scheme (Marks)			
		L	T	P	Theory	TW	Pract./ Oral	Total
1	Engine & Machine Design	4	--	4	100	25	25	150
2	Vehicle Dynamics	3	--	--	100	--	--	100
3	Finite Element Analysis	3	--	2	100	25	--	125
4	Alternative Fuels & Emission	3	--	2	100	25	25	150
5	Electives – I	3	--	2	100	25	--	125
6	Industrial Case Study Evaluation	--	--	2*	--	25	--	25
7	Engine Testing	--	--	2	--	25	50	75
	Project Phase I	--	--	2*	--	50	--	50
		16	--	14	500	200	100	800
Total Contact Hours per week				30	Total Marks			800

\* Combine utilization for project phase I and industrial case study evaluation

Sr. No.	Electives – I
1	Noise and Vibration
2	Energy Engineering
3	Computer Integrated Manufacturing Systems
4	Industrial Product Design
5	Production Management

  
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 year: 2013-14



# Shivaji University, Kolhapur

Syllabus Structure of Final Year (B. E. Auto.-II) Automobile Engineering Course

*Scheme of Teaching and Examination*

## SEMESTER – VIII

Sr. No.	Name of the Subject	Teaching Scheme (Hrs)			Examination Scheme (Marks)			
		L	T	P	Theory	TW	Pract./ Oral	Total
1	Refrigeration & Air Conditioning	3	--	2	100	25	--	125
2	Automotive Electronics	3	--	2	100	25	--	125
3	Automotive System Design	3	--	4	100	25	25	150
4	Vehicle Performance	3	--	2	100	25	25	150
5	<b>Elective – II</b>	3	--	--	100	--	--	100
6	Project	--	--	5	--	75	75	150
		15	--	15	500	175	125	800
Total Contact Hours per week				30	Total Marks			800

Sr. No.	Elective- II
1	<b>Transport Management</b>
2	Entrepreneurship Development
3	Tractor and Farm Equipment
4	Maintenance Management
5	Operation Research

[Note :- Examination scheme and term work marks strictly as per above structure]

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year 2013-14



## Final Year Civil Engineering SYLLABUS STRUCTURE

### B.E. Civil Engineering Semester-VII

Sr. No.	Subject	Teaching Scheme per week					Examination Scheme (marks)				
		L	P	T	D	Total	Theory Paper	TW	POE	OE	Total
1	Design of Concrete Structures-I	4	-	-	-	4	100	-	-	-	100
2	Quantity Survey and Valuation	4	4	-	-	8	100	50	-	25	175
3	Earthquake Engineering	3	2	-	-	5	100	25	-	-	125
4	Transportation Engineering	4	2	-	-	6	100	25	-	25	150
5	Elective-I	3	2	-	-	5	100	25	-	25	150
6	Project Work	-	2	-	-	2	-	75	-	-	75
7	Report on Field Training #	-	-	-	-	-	-	25	-	-	25
<b>TOTAL</b>		<b>18</b>	<b>12</b>	<b>-</b>	<b>-</b>	<b>30</b>	<b>500</b>	<b>225</b>	<b>-</b>	<b>75</b>	<b>800</b>

# Assessment of Report on Field Training to be done Project Guide along with Project Term Work Assessment Committee

### B.E. Civil Engineering Semester-VIII

Sr. No.	Subject	Teaching Scheme per week					Examination Scheme (marks)				
		L	P	T	D	Total	Theory Paper	TW	POE	OE	Total
1	Town Planning & Transportation Engineering	4	-	-	-	4	100	-	-	-	100
2	Construction Practices	4	-	-	-	4	100	-	-	-	100
3	Design of Concrete Structures-II	4	2	-	-	6	100	25	-	-	125
4	Elective-II	3	2	-	-	5	100	25	-	25	150
5	Elective-III	3	-	-	-	3	100	-	-	-	100
6	Structural Design and Drawing - II	-	-	-	4	4	-	50	-	25	75
7	Project Work	-	6	-	-	6	-	75	-	75	150
<b>TOTAL</b>		<b>18</b>	<b>10</b>	<b>-</b>	<b>4</b>	<b>32</b>	<b>500</b>	<b>175</b>	<b>-</b>	<b>125</b>	<b>800</b>

[Note :- Examination scheme and term work marks strictly as per above structure]

<b>Elective I</b>	
•	Advanced Structural Analysis
•	Experimental Stress Analysis
•	Finite Element Method
•	Advanced Foundation Engineering
•	Transportation Infrastructure Planning and Demand Estimation
•	Advanced Engineering geology
•	Open channel Hydraulics
•	Human Resource Development
•	Project Appraisal
•	Solid Waste Management



<b>Elective II</b>	
•	Advance Concrete design
•	Design Of Industrial Structure
•	Analysis and Design of Earthquake Resisting Structure
•	Structural Design of Foundation and Retaining Structures
•	Pavement Analysis, Design and Evaluation
•	Remote sensing applications in civil engineering
•	Hydrology and Watershed Management
•	Site investigation methods and practices
•	Entrepreneurships
•	Air Pollution & Control

<b>Elective III</b>	
•	Advance Prestressed Concrete Design
•	Design of Bridges
•	Dynamics of Structure
•	Ground Improvement
•	Project Planning, Economics and Financing
•	Rock Mechanics
•	Water Power Engineering
•	Advance Construction Techniques
•	Optimization technique
•	Industrial Waste Treatment



**SEMESTER VII**

Sr. No.	Subject Name	L	T	P	Theory Marks	T/W	Oral	POE	Total Marks
1	Advanced Computer Architecture	4	1	-	100	25	-	-	125
2	Distributed Systems	3	-	2	100	25	-	-	125
3	Advanced Database Systems	3	-	2	100	25	25	-	150
4	Network Engineering	2	-	4	-	25	-	50	75
5	Elective – I	3	1	-	100	25	-	-	125
6	Community Services	-	-	2	-	25	-	-	25
7	Project – I	-	-	4	-	50	75	-	125
	<b>Total</b>	<b>15</b>	<b>2</b>	<b>14</b>	<b>400</b>	<b>200</b>	<b>100</b>	<b>50</b>	<b>750</b>

**SEMESTER VIII**

Sr. No.	Subject Name	L	T	P	Theory Marks	T/W	Oral	POE	Total Marks
1	Grid Technology	4	-	2	100	25	25	-	150
2	Storage Networks	3	1	-	100	25	-	-	125
3	Real Time Operating System	4	1	-	100	25	-	-	125
4	Web Technology	3	-	4	-	50	-	50	100
5	Elective – II	3	1	-	100	25	-	-	125
6	Project – II	-	-	4	-	50	75	-	125
	<b>Total</b>	<b>17</b>	<b>3</b>	<b>10</b>	<b>400</b>	<b>200</b>	<b>100</b>	<b>50</b>	<b>750</b>

**Elective – I**

1. Soft Computing
2. ✓ Project Management
3. ✓ Cyber Laws

**Elective – II**

1. ✓ Data Mining
2. Ad hoc Networks
3. ✓ Business Intelligence System

**Note:**

1. The term work as prescribed in the syllabus is to be periodically and jointly assessed by a team of teachers from the concerned department.
2. In case of tutorials, students of different batches be assigned problems of different types and be guided for the solution of the problem during tutorial session. Problems

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& Engineering  
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SHIVAJI UNIVERSITY, KOLHAPUR  
B.E.(Electrical) SEM. VII

Sr. No.	Subject	Teaching Scheme		Examination Scheme				
		L	P	Theory	TW	POE	OE	TOTAL
1	Electrical Drives and Control	4	2	100	25	25	--	150
2	High Voltage Engineering	3	2	100	50	--	--	150
3	Advanced Switchgear and Protection	4	2	100	25	--	25	150
4	Renewable Energy Sources	4	2	100	50	-	--	150
5	Elective-I	3	--	100	--	-	--	100
6	Project Phase-I	--	4		-	--	50	50
7	T.E. Vacation Training Evaluation	--	--	--	50	--	--	50
	Total	18	12	500	200	25	75	800

Academic Year 2013-14  
B.E.(Electrical) PART-II SEM. VIII

Sr. No.	Subject	Teaching Scheme		Examination Scheme				
		L	P	Theory	TW	POE	OE	TOTAL
1	Electrical Utilization and traction	4	-	100	-	-	--	100
2	HVDC Systems	4	2	100	25	-	--	125
3	Electrical Installation, testing and maintenance	4	4	100	50	--	50	200
4	Elective -II	4	-	100		--	--	100
5	Electrical Machine Design Laboratory	-	4	--	50	--	50	100
5	Project Phase- II		4		75	--	100	175
	Total	16	14	400	200	--	200	800

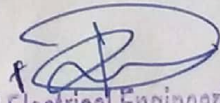
## ELECTIVES (SEMISTER I):

1. FACTS
2. Digital Control System
3. Embedded System
4. Electrical Engineering Materials
5. Thermal Engineering

## ELECTIVES (SEMISTER II):

1. EHVAC
2. Computer Aided power Systems
3. Advanced Digital Signal Processing
4. Restructured Power Systems

[Note :- Examination scheme and term work marks strictly as per above structure]

  
(Head Electrical Engineering Dept.)  
SANJEEVAN ENGINEERING AND  
TECHNOLOGY INSTITUTE, PANHALA  
Near Peth, Tal. Panhala, Dist. Kolhapur-416 201  
MAHARASHTRA INDIA



# Academic Year 2013-2014

B.E. (ELECTRONICS & TELECOMMUNICATION ENGG.) (Sem VII)

SR.NO	SUBJECT	TEACHING SCHEME				EXAM.SCHEME				
		L	T	P	Total	Paper	TW	POE	OE	Total
1.	Computer Communication Network	4	-	2	6	100	25	--	50	175
2.	Wireless Communication	4	-	-	4	100	25	-	-	125
3.	Microwave Engineering	4	-	2	6	100	25	-	50	175
4.	Embedded Systems	4	-	2	6	100	25	50	-	175
5.	Elective-I	4	-	-	4	100	-	-	-	100
6.	Project	-	-	4	4	-	50	-	-	50
	TOTAL	20	-	10	30	500	150	50	100	800

B.E. (ELECTRONICS & TELECOMMUNICATION ENGG.) (Sem VIII)

SR.NO	SUBJECT	TEACHING SCHEME				EXAM.SCHEME				
		L	T	P	Total	Paper	TW	POE	OE	Total
1.	Audio & Video Engg.	4	-	2	6	100	25	50	-	175
2.	Broadband Communication	4	-	2	6	100	25	--	--	125
3.	Image Processing	4	-	2	6	100	25	-	50	175
4.	Elective-II	4	-	-	4	100	25	-	-	125
5.	Project	-	-	8	8	-	100	-	100	200
	TOTAL	16	-	14	30	400	200	50	150	800

[Note :- Examination scheme and term work marks strictly as per above structure]



# Academic Year 2013-2014

B.E. (ELECTRONICS & TELECOMMUNICATION ENGG.) 2010-11

## B.E. Part-I

### Elective-I

1. Digital Signal Processors
2. Integrated Communication Systems
3. Satellite Communication
4. Remote sensing & GIS

## B.E. Part-II

### Elective-II

1. Speech Processing
2. Pattern Recognition
3. Mobile Communication
4. Real time Systems

  
HOD

Electronics & Telecommunication Engg.  
Sanjeevan Engg. & Tech. Institute  
Somwar Peth, Panhala - 416 201



## SHIVAJI UNIVERSITY, KOLHAPUR

## Structure of B. E. (MECHANICAL ENGINEERING) Semesters VII &amp; VII

Sr. No.	Subject	L	TUT	P	Dr	Total	PT	TW	OE	POE	Total
1	Refrigeration & Air Conditioning	3	-	2	-	5	100	25	---	25	150
2	Mechanical System Design	3	-	2	-	5	100	25	25	--	150
3	Finite Element Analysis	3	-	2	-	5	100	25	--	--	125
4	Elective - I	3	-	2	-	5	100	25	--	25	150
5	Elective - II	3	-	2	-	5	100	25	--	--	125
6	Seminar	-	-	2	-	2	-	50	--	-	50
7	Project	-	-	3	-	3	-	50	--	-	50
8	Industrial Training @	-	-	-	-	-	-	50	--	-	50
	<b>Total</b>	<b>15</b>	<b>-</b>	<b>15</b>	<b>-</b>	<b>30</b>	<b>500</b>	<b>275</b>	<b>25</b>	<b>50</b>	<b>850</b>

Sr. No.	Elective I	Elective - II
01	Experimental Mechanics	Total Quality Management
02	Noise & Vibration	Nano Technology
03	Automobile Engineering	Industrial Product Design
04	Jigs and Fixture Design \$	Human Values And Professional Ethics

@ Industrial training of minimum two (2) weeks should be done after T.E. (II) in summer vacation and it's assessment will be done in B.E. (I) based on report submitted. Work load of the assessment can be assigned to the project seminar guide.

\$ The Theory of paper examination duration 4 hours

Unless mentioned, theory paper examination duration 3 hours

## B.E. (MECHANICAL ENGINEERING)

Sr. No.	Subject	L	TUT	P	Dr	Total	PT	TW	OE	POE	Total
1	Mechatronics	3	-	2	-	5	100	25	25	--	150
2	Industrial Engineering	3	-	2	-	5	100	25	--	---	125
3	Power Engineering	3	-	2	-	5	100	25	25-	---	150
4	Elective III	3	-	2	-	5	100	25	--	---	125
5	Elective IV	3	-	2	-	5	100	25	--	---	125
6	Project	-	-	5	-	5	-	100	--	75	175
	<b>Total</b>	<b>15</b>	<b>-</b>	<b>15</b>	<b>-</b>	<b>30</b>	<b>500</b>	<b>225</b>	<b>50</b>	<b>75</b>	<b>850</b>

Sr. No.	Elective III	Elective IV
01	Production Management	Industrial Automation & Robotics
02	MEMS	Enterprise Resource Planning
03	Machine Tool Design	Cryogenics
04	Computational Fluid Dynamics	P.L.C. & SCADA Programing

[Note :- Examination scheme and term work marks strictly as per above structure]