

Semester VII

Sr. No.	Code No.	Subject	Semester	Credits
1	PCC-ETC701	Satellite Communication	7	4
2	PCC-ETC702	Embedded Systems	7	5
3	PCC-ETC703	Computer Networks	7	5
4	PCC-ETC704	Image Processing	7	5
5	PCE-ETC701	Elective-I	7	4
6	PW-ETC701	Project Phase-I	7	2
Total				25

Semester VIII

Sr. No.	Code No.	Subject	Semester	Credits
1	PCC-ETC801	Microwave Engineering	8	5
2	PCC-ETC802	Wireless Communication	8	5
3	PCC-ETC803	Video Engineering	8	5
4	PCE-ETC801	Elective-II	8	4
5	PW-ETC801	Project Phase-II	8	6
Total				25

Elective-I	Elective-II
Speech Processing	High Performance Communication Network
Radar and Navigation	Advance Network Security
Java Script	Electrical Automobile
Information Theory And Coding Techniques	Big Data Analytics

*****For Theory CIE 30 Marks,**

Two tests of 30 marks at college should be conducted and best of two marks should be communicated to university.

*****Guidelines to paper setter:**

In theory ESE examination of 70 marks following points should be considered,

1. First question of 10 marks should be allotted to Objective type questions.
2. In Remaining 60 marks, four questions of 15 marks should be considered.

Semester V

Sr. No	Code No.	Subject	Semester	Credits
1.	PCC-ETC501	Signal and Systems	5	5
2.	PCC-ETC502	Electromagnetic Engineering	5	4
3.	PCC-ETC503	Digital and VLSI Design	5	5
4.	PCC-ETC504	Optical Communication	5	5
5.	OEC-ETC501	Open Elective – I	5	4
6.	PCC-ETC505	Simulation and Modeling	5	2
		Total		25

Semester VI

Sr. No	Code No.	Subject	Semester	Credits
1.	PCC-ETC601	Digital Signal Processing	6	5
2.	PCC-ETC602	Microprocessor and Microcontrollers	6	5
3.	PCC-ETC603	Power Electronics	6	5
4.	PCC-ETC604	Antenna and Wave Propagation	6	5
5.	OEC-ETC601	Open Elective – II	6	4
6.	PCC-ETC605	Mini Project	6	1
		Total		25

- **For Theory CIE 30 marks,**
Two tests of 30 marks at college should be conducted and best of two marks should be communicated to university.
- **Guidelines to paper setter:**
In theory ESE examination of 70 marks following points should be considered,
 - Q.1 MCQ's based on complete syllabus. (Carries 14 Marks)
 - Q.2 based on unit no 1, 2, 3 (Carries 14 Marks)
 - Q.3 based on unit no 1, 2, 3 (Carries 14 Marks)
 - Q.4 based on unit no 4, 5, 6 (Carries 14 Marks)
 - Q.5 based on unit no 4, 5, 6 (Carries 14 Marks)

Open Elective –I

Sr. No.	Name of Subject /Elective	Name of the Concern Branch
1.	Energy And Environment	Civil Engineering
	Waste Management	
2.	Enterprise Resource Planning	Mechanical Engineering
	Optimization Techniques	
3.	Electrical Appliances And Luminaries	Electrical Engineering
	Domestic /Industrial Electrical Installation, Estimation And Costing	
4.	Industrial Automation	Electronics Engineering
	Biomedical Instrumentation	
5.	Computer Graphics & Multimedia	Computer Science & Engineering
	Internet of Things	
6.	Additive Manufacturing	Production Engineering
	Human Resource Management	
7.	Computational Techniques in Chemical Engineering	Chemical Engineering
	Applications of MATLAB in Chemical Engineering	
8.	Human Computer Interaction	Information Technology
	Internet of Things	
9.	Industrial Automation	Electronics & Telecommunication Engineering
	Biomedical Instrumentation	

Open Elective –II

Sr. No.	Name of Subject /Elective	Name of the Concern Branch
1.	Soil And Water Conservation Techniques	Civil Engineering
	Disaster Risk Management	
2.	Computer Aided Design And Manufacturing	Mechanical Engineering
	Electric Vehicle	
3.	Electrical Energy Audit And Conservation	Electrical Engineering
	PLC & SCADA	
4.	Robotics Engineering	Electronics Engineering
	Mobile Technology	
5.	E-Commerce & Digital Marketing	Computer Science & Engineering
	Cyber Security	
6.	Entrepreneurship Development	Production Engineering
	Supply Chain Management	
8.	Industrial Economics, Management And Entrepreneurship	Chemical Engineering
	Project Management And Smart Technology	
10.	Cyber Security	Information Technology
	E-Commerce & Digital Marketing	
11.	Robotics Engineering	Electronics & Telecommunication Engineering
	Mobile Technology	

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

Elective I

Sr.No.	Name of Subjects
1.	Advanced Traffic Engineering
2.	Open Channel Hydraulics
3.	Remote Sensing and GIS Application in Civil Engineering
4.	Solid Waste Management
5.	Optimization Techniques
6.	Town Planning

ELECTIVE-II (STRUCTURE GROUP)

Sr.No.	Name of Elective
1.	Design of bridges
2.	Maintenance, Retrofitting, Rehabilitation Of Structure
3.	Advance Foundation Engineering
4.	Advanced Pre-stressed Concrete Design
5.	Structural Design of Foundation & Retaining Structures
6.	Advanced Design of Concrete Structures
7.	Dynamics of Structure
8.	Finite Element Method

6	6	11
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ELECTIVE-III

Sr.No.	Name of Elective
1.	Hydrology And Watershed Management
2.	Site Investigation Methods And Practices
3.	Industrial Waste Treatment
4.	AdvancedConstructionTechniques
5.	Engineering Geology
6.	Valuation Of Real Properties
7.	Air Pollution And Control
8.	Construction Practices
9.	Water Power Engineering

• Candidate contact hours per week : 30 Hours (Minimum)	• Total Marks for Final Yr. Sem VII & VIII : 800 + 800 = 1600
• Theory and Practical Lectures : 60 Minutes Each	• Total Credits for Final Yr. Sem VII & VIII: 50 (SEM-VII: 25 + SEM-VIII: 25)
• In theory examination there will be a passing based on separate head of passing for examination of CIE and ESE.	
• There shall be separate passing for theory and practical (term work) courses.	

Note:

1. **PCC-CS:** Professional Core Course – Computer Science and Engineering are compulsory.
2. **PCE-CS:** Professional Core Elective – Computer Science and Engineering are compulsory.
3. **HM-CS:** Humanities and Management- Computer Science and Engineering are compulsory.
4. **PW-CS:** Domain Specific Mini Project – Computer Science and Engineering are compulsory.
5. **SI-CS:** Internship-Computer Science and Engineering are compulsory.

Professional Core Elective – I

1. Artificial Intelligence
2. Software Testing & Quality Assurance
3. Image Processing

Professional Core Elective – II

1. Project Management
2. Natural Language Processing
3. Ad-Hoc Wireless Sensor Networks

Professional Core Elective – III

1. High Performance Computing
2. Blockchain Technologies
3. Human computer Interaction

• Candidate contact hours per week : 30 Hours (Minimum)	• Total Marks for T.Y. Sem V & VI : 800 + 800 =1600
• Theory and Practical Lectures : 60 Minutes Each	• Total Credits for T.Y. Sem V & VI : 50 (SEM-V: 25 + SEM -VI: 25)
• In theory examination there will be a passing based on separate head of passing for examination of CIE and ESE.	
• There shall be separate passing for theory and practical (term work) courses.	

Note:

- PCC-CS:** Professional Core Course – Computer Science and Engineering are compulsory.
- HM-CS:** Humanities and Management- Computer Science and Engineering are compulsory.
- PW-CS:** Domain Specific Mini Project – Computer Science and Engineering are compulsory.
- #OEC-CS: Open Elective Course** – To be offered to Inter departmental students.
 - # - 60% of the students from other branches to be chosen on merit.
 - 40% of the students may be from same branch based on merit.
 - Number of students to be allowed should be 72(Max.) for the branch with intake of 60 students.
 - The above ratio should be followed in proportionate to the sanctioned intake.

OPEN ELECTIVE COURSE-I

Sr. No.	Name of the Subject	Name of the concern Branch
1	i) Computer Graphics & Multimedia ii) Internet of Things	Computer Science and Engineering

OPEN ELECTIVE COURSE-II

Sr. No.	Name of the Subject	Name of the concern Branch
1	i) E-Commerce & Digital Marketing ii) Cyber Security	Computer Science and Engineering



G.K. Gujar Memorial Charitable Trust's
DR. ASHOK GUJAR TECHNICAL INSTITUTE'S
DR. DAULATRAO AHER COLLEGE OF ENGINEERING, KARAD
Vidyanagar Extn., Dist. Satara

Department of Electronics and Telecommunication Engineering

Summary of Elective Subjects B.E/B.Tech/T.Y

S.N	Academic Year	Class	No of Electives		No. Of Elective Chosen	
			I	II	I	II
01	2020-21	Final Year B.Tech	04	04	01	01
02	2020-21	T.Y B.Tech	02	02	01	01
03	2019-20	BE	04	04	01	01
04	2018-19	BE	04	04	01	01
05	2017-18	BE	04	04	01	01
06	2016-17	BE	04	04	01	01

Prepared By

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Approved By

HOD E&TC



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DR. ASHOK GUJAR TECHNICAL INSTITUTE'S
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Vidyanagar Extn., Dist. Satara

Department of Electronics and Telecommunication Engineering

List of Elective Subjects B.E/B.Tech/T.Y

S.N	Academic Year	Class	Semester		No. Of Elective Chosen	
			I	II	I	II
01	2020-21	Final Year B.Tech	Speech Processing	High Performance Communication Network	01	01
			Radar and Navigation	Advance Network Security		
			Java Script	Electrical Automobiles		
			Information Theory And Coding Techniques	Big Data Analytics		
02	2020-21	T.Y B.Tech	Industrial automation	Robotics engineering	01	01
			Biomedical instrumentation	Mobile technology		
03	2019-20	BE	Robotics	Mechatronics	01	01
			Speech processing	Artificial Neural Network		
			MEMS	Remote Sensing & GPS		
			Radar & Navigation Aids	Operating System		
04	2018-19	BE	Robotics	Mechatronics	01	01
			Speech processing	Artificial Neural Network		
			MEMS	Remote Sensing & GPS		
			Radar & Navigation Aids	Operating System		

S.N	Academic Year	Class	Semester		No. Of Elective Chosen	
			I	II	I	II
05	2017-18	BE	Robotics	Mechatronics	01	01
			Speech processing	Artificial Neural Network		
			MEMS	Remote Sensing & GPS		
			Radar & Navigation Aids	Operating System		
06	2016-17	BE	Robotics	Mechatronics	01	01
			Speech processing	Artificial Neural Network		
			MEMS	Remote Sensing & GPS		
			Radar & Navigation Aids	Operating System		

Prepared By Gurav R.K	Approved By HOD E&TC
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