

# GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

## Department of Electronics and Telecommunication Engineering

### Scheme for Bachelor of Technology (Electronics and Telecommunication Engineering)

#### Semester I

Course Code	Name of the Course	Group as per AICTE norms	Teaching Scheme Hours/Week				Evaluation Scheme						Credits	
							Theory				Practical			Total
			Th	Tut	Pr	Total	ISA	ISE1	ISE2	ESE	ICA	ESE		
SH101	Engineering Mathematics-I	a	3	1	---	4	10	15	15	60	---	---	100	4
SH152	Applied Chemistry	a	4	---	---	4	10	15	15	60	---	---	100	4
ME151	Engineering Graphics	b	3	---	---	3	10	15	15	60	---	---	100	3
EE151	Basic Electrical Engineering	b	2		---	2	4	8	8	30	---	---	50	2
SH153	Environmental Studies	a	3	---	---	3	10	15	15	60	---	---	100	3
ME152	Workshop Practice-II	b	---	---	2	2	---	---	---	---	50	---	50	1
SH154	Applied Chemistry Lab	a	---	---	2	2	---	---	---	---	50	---	50	1
ME153	Engineering Graphics Lab	b	---	---	4	4	---	---	---	---	50	---	50	2
EE152	Basic Electrical Engineering Lab	b	---	---	2	2	---	---	---	---	50	---	50	1
SH155	General Proficiency I	c	1	---	2	3	---	---	---	---	50	---	50	2
<b>Total</b>			<b>16</b>	<b>1</b>	<b>12</b>	<b>29</b>	<b>44</b>	<b>68</b>	<b>68</b>	<b>270</b>	<b>250</b>	<b>---</b>	<b>700</b>	<b>23</b>

#### Semester II

Course Code	Name of the Course	Group as per AICTE norms	Teaching Scheme Hours/Week				Evaluation Scheme						Credits	
							Theory				Practical			Total
			Th	Tut	Pr	Total	ISA	ISE1	ISE2	ESE	ICA	ESE		
SH151	Engineering Mathematics-II	a	3	1	---	4	10	15	15	60	---	---	100	4
SH102	Applied Physics	a	4	----	---	4	10	15	15	60	---	---	100	4
CO101	Computer Fundamentals and C Programming	b	3	---	---	3	10	15	15	60	---	---	100	3
CE101	Engineering Mechanics	b	3	1	---	4	10	15	15	60	---	---	100	4
ET101	Basic Electronics Engineering	b	2	---	---	2	4	8	8	30	---	---	50	2
ME101	Workshop Practice-I	b	---	---	2	2	---	---	---	---	50	---	50	1
SH103	Applied Physics Lab	a	---	---	2	2	---	---	---	---	50	---	50	1
CO102	Computer Fundamentals and C Programming Lab	b	---	---	4	4	---	---	---	---	50	---	50	2
CE102	Engineering Mechanics Lab	b	---	---	2	2	---	---	---	---	50	---	50	1
ET102	Basic Electronics Engineering Lab	b	---	---	2	2	---	---	---	---	50	---	50	1
<b>Total</b>			<b>15</b>	<b>2</b>	<b>12</b>	<b>29</b>	<b>44</b>	<b>68</b>	<b>68</b>	<b>270</b>	<b>250</b>	<b>---</b>	<b>700</b>	<b>23</b>

**Th: Theory**

**ISA :Internal Sessional Assessment**

**Tut: Tutorial**

**ISE : In Semester Examination**

**Pr: Practical**

**ESE: End Semester Examination**

**Lab: Laboratory**

**ICA : Internal Continuous Assessment**

# GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

## Department of Electronics and Telecommunication Engineering

### Scheme for Bachelor of Technology (Electronics and Telecommunication Engineering)

#### Semester III

Course Code	Name of the Course	Group as per AICTE norms	Teaching Scheme Hours/Week				Evaluation Scheme						Credits	
							Theory				Practical			Total
			Th	Tut	Pr	Total	ISA	ISE1	ISE2	ESE	ICA	ESE		
SH201	Engineering Mathematics - III	a	3	1	---	4	10	15	15	60	---	---	100	4
ET201	Network Analysis	b	3	---	---	3	10	15	15	60	---	---	100	3
ET202	Components, Devices and Instruments Technology	d	4	---	---	4	10	15	15	60	---	---	100	4
ET203	Electronic Devices and Circuits	d	3	---	---	3	10	15	15	60	---	---	100	3
ET204	Digital Electronics	d	3	---	---	3	10	15	15	60	---	---	100	3
SH204	General Proficiency II	c	1	---	2	3	---	---	---	---	25	25	50	2
ET205	Network Analysis Lab	b	---	---	2	2	---	---	---	---	50	---	50	1
ET206	Components, Devices and Instruments Technology Lab	d	---	---	2	2	---	---	---	---	25	---	50	1
ET207	Electronics Devices and Circuits Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
ET208	Digital Electronics Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
<b>Total</b>			<b>17</b>	<b>1</b>	<b>10</b>	<b>28</b>	<b>50</b>	<b>75</b>	<b>75</b>	<b>300</b>	<b>150</b>	<b>100</b>	<b>750</b>	<b>23</b>

#### Semester IV

Course Code	Name of the Course	Group as per AICTE norms	Teaching Scheme Hours/Week				Evaluation Scheme						Credits	
							Theory				Practical			Total
			Th	Tut	Pr	Total	ISA	ISE1	ISE2	ESE	ICA	ESE		
ET251	Signals and Systems	d	3	---	---	3	10	15	15	60	---	---	100	3
ET252	Electronic Circuits and Applications	d	3	1	---	4	10	15	15	60	---	---	100	4
ET253	Microprocessor and Microcontroller	d	3	---	---	3	10	15	15	60	---	---	100	3
ET254	Analog Communication	d	3	---	---	3	10	15	15	60	---	---	100	3
SH 255	Human Resources and Economics	c	3	---	---	3	10	15	15	60	---	---	100	3
ET255	Data Structures Lab	b	2	---	2	4	---	---	---	---	25	50	75	3
ET256	Signals and Systems Lab	d	---	---	2	2	---	---	---	---	25	---	25	1
ET257	Electronic Circuits and Applications Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
ET258	Microprocessor and Microcontroller Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
ET259	Analog Communication Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
<b>Total</b>			<b>17</b>	<b>1</b>	<b>10</b>	<b>28</b>	<b>50</b>	<b>75</b>	<b>75</b>	<b>300</b>	<b>125</b>	<b>125</b>	<b>750</b>	<b>23</b>

**Th: Theory**

**ISA :Internal Sessional Assessment**

**Tut: Tutorial**

**ISE : In Semester Examination**

**Pr: Practical**

**ESE: End Semester Examination**

**Lab: Laboratory**

**ICA : Internal Continuous Assessment**

# GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

## Department of Electronics and Telecommunication Engineering

Scheme for Bachelor of Technology (Electronics and Telecommunication Engineering)

Semester V

Course Code	Name of the Course	Group as per AICTE norms	Teaching Scheme Hours/Week				Evaluation Scheme						Credits	
			Th	Tut	Pr	Total	Theory				Practical			Total
							ISA	ISE1	ISE2	ESE	ICA	ESE		
ET301	Linear Integrated Circuits and Applications	d	3	---	---	3	10	15	15	60	---	---	100	3
ET302	Control System Engineering	d	3	---	---	3	10	15	15	60	---	---	100	3
ET303	Digital Signal Processing	d	3	---	---	3	10	15	15	60	---	---	100	3
ET304	Communication System Theory	d	3	---	---	3	10	15	15	60	---	---	100	3
SH301	Industrial Management and Operation Research	c	3	---	---	3	10	15	15	60	---	---	100	3
ET305	Linear Integrated Circuits and Applications Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
ET306	Control System Engineering Lab	d	---	---	2	2	---	---	---	---	50	---	50	1
ET307	Digital Signal Processing Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
ET308	Object Oriented Programming Lab	b	1	---	4	5	---	---	---	---	50	50	100	3
ET309	Self Study- I	d	---	---	---	---	---	---	---	---	---	---	50**	2
<b>Total</b>			<b>16</b>		<b>10</b>	<b>26</b>	<b>50</b>	<b>75</b>	<b>75</b>	<b>300</b>	<b>150</b>	<b>100</b>	<b>800</b>	<b>23</b>

**Th: Theory**

**Tut: Tutorial**

**Pr: Practical**

**Lab: Laboratory**

**ISA :Internal Sessional Assessment**

**ISE : In Semester Examination**

**ESE: End Semester Examination**

**ICA : Internal Continuous**

- **\*\*Marks and hence grade of course 'self study' shall be based on one test each conducted on 20% syllabus of five courses - ET301, ET302, ET303, ET304, SH301. One faculty member should be appointed as course coordinator for the course 'self study' to compile the marks of all tests and enter in to institute's Management Information System (MIS) software.**
- **Twenty percent syllabus for 'self study' shall be declared by course teacher at the beginning of semester. The teacher shall conduct the test examination for the self study syllabus of that course and submit the marks to the course coordinator.**

# GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

## Department of Electronics and Telecommunication Engineering

Scheme for Bachelor of Technology (Electronics and Telecommunication Engineering)

Semester VI

Course Code	Name of the Course	Group as per AICTE norms	Teaching Scheme Hours/Week				Evaluation Scheme						Credits	
			Th	Tut	Pr	Total	Theory				Practical			Total
							ISA	ISE1	ISE2	ESE	ICA	ESE		
ET351	Electromagnetic Fields	d	3	--	---	3	10	15	15	60	---	---	100	3
ET352	Audio and Video Engineering	d	3	---	---	3	10	15	15	60	---	---	100	3
ET353	Electronic Measurements	d	3	---	---	3	10	15	15	60	---	---	100	3
ET354	Semiconductor Power Devices and Drives	d	3	---	---	3	10	15	15	60	---	---	100	3
ET355	Digital Communication	d	3	---	---	3	10	15	15	60	---	---	100	3
ET356	Semiconductor Power Devices and Drives Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
ET357	Audio and Video Engineering and Electronic Measurements Lab	d	---	---	2	2	---	---	---	---	50	---	50	1
ET358	Digital Communication Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
ET359	Circuit Simulation Lab	b	---	---	2	2					25	25	50	1
ET360	Miniproject	d	----	----	2	2	---	----	---	----	25	25	50	2
ET361	Self Study - II	d	---	---	----	---	---	---	---	---	---	---	50**	2
ET362	Industrial Lecture*	d	1	---	----	1	---	---	---	---	---	---	---	---
<b>Total</b>			<b>16</b>	<b>---</b>	<b>10</b>	<b>26</b>	<b>50</b>	<b>75</b>	<b>75</b>	<b>300</b>	<b>150</b>	<b>100</b>	<b>800</b>	<b>23</b>

**Th: Theory**

**Tut: Tutorial**

**Pr: Practical**

**Lab: Laboratory**

**ISA :Internal Sessional Assessment**

**ISE : In Semester Examination**

**ESE: End Semester Examination**

**ICA : Internal Continuous**

**Assessment**

- \*Evaluation of the course ET362 industrial lecture shall be carried out in VIII Semester along with the course ET459 industrial lecture
- \*\*Marks and hence grade of course 'self study' shall be based on one test each conducted on 20% syllabus of five courses - ET351, ET352, ET353, ET354, ET355. One faculty member should be appointed as course coordinator for the course 'self study' to compile the marks of all tests and enter in to institute's Management Information System (MIS) software.
- Twenty percent syllabus for 'self study' shall be declared by course teacher at the beginning of semester. The teacher shall conduct the test examination for the self study syllabus of that course and submit the marks to the course coordinator.

# GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

## Department of Electronics and Telecommunication Engineering

Scheme for Bachelor of Technology (Electronics and Telecommunication Engineering)

Semester VII

Course Code	Name of the Course	Group as per AICTE norms	Teaching Scheme Hours/Week				Evaluation Scheme						Credits	
			Th	Tut	Pr	Total	Theory				Practical			Total
							ISA	ISE1	ISE2	ESE	ICA	ESE		
ET401	Digital System Design and Very Large Scale Integration	d	3	---		3	10	15	15	60	---	---	100	3
SH401	Entrepreneurship and Business Planning	c	2	---		2	4	8	8	30	---	---	50	2
ET402	Satellite and Mobile Communication	d	3	---		3	10	15	15	60	---	---	100	3
ET403	Elective I	e	3	---		3	10	15	15	60	---	---	100	3
ET404	Interdisciplinary Elective	e	3	---		3	10	15	15	60	---	---	100	3
ET405	Digital System Design and Very Large Scale Integration Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
ET406	Satellite and Mobile Communication Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
ET407	Lab (Elective I)	e	---	---	2	2	---	---	---	---	25	25	50	1
ET408	Project Phase I	d	---	---	2	2	---	---	---	---	50	50	100	2
ET409	Seminar	d	---	---	2	2	---	---	---	---	25	25	50	2
ET410	Self Study -III	d	---	---	---	---	---	---	---	---	---	---	50**	2
<b>Total</b>			<b>14</b>	<b>---</b>	<b>10</b>	<b>24</b>	<b>44</b>	<b>68</b>	<b>68</b>	<b>270</b>	<b>200</b>	<b>100</b>	<b>800</b>	<b>23</b>

**Th: Theory**

**ISA :Internal Sessional Assessment**

**Tut: Tutorial**

**ISE : In Semester Examination**

**Pr: Practical**

**ESE: End Semester Examination**

**Lab: Laboratory**

**ICA : Internal Continuous Assessment**

### Elective I

- A Digital Image Processing
- B Broadband Communication
- C Embedded Systems
- D Bio-medical Engineering

### Interdisciplinary Elective

- A Semiconductor Power Devices and Drives
- B Electronics Instruments and Applications
- C Photovoltaic Devices and Systems
- D Industrial Automation

- **\*\*Marks and hence grade of course 'self study' shall be based on one test each conducted on 20% syllabus of five courses –ET401, SH401, ET402, ET403, ET404. One faculty member should be appointed as course coordinator for the course 'self study' to compile the marks of all tests and enter in to institute's Management Information System (MIS) software.**
- **Twenty percent syllabus for 'self study' shall be declared by course teacher at the beginning of semester. The teacher shall conduct the test examination for the self study syllabus of that course and submit the marks to the course coordinator.**

# GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

## Department of Electronics and Telecommunication Engineering

Scheme for Bachelor of Technology (Electronics and Telecommunication Engineering)

Semester VIII

Course Code	Name of the Course	Group as per AICTE norms	Teaching Scheme Hours/Week				Evaluation Scheme						Credits	
			Th	Tut	Pr	Total	Theory				Practical			Total
							ISA	ISE1	ISE2	ESE	ICA	ESE		
ET451	Computer Network and Communication	d	3	---	---	3	10	15	15	60	---	---	100	3
ET452	Microwave Engineering and Fiber Optics	d	3	---	---	3	10	15	15	60	---	---	100	3
ET453	(Elective II)	e	3	---	---	3	10	15	15	60	---	---	100	3
ET454	(Elective III)	e	3	---	---	3	10	15	15	60	---	---	100	3
ET455	Computer Network and Communication Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
ET456	Microwave Engineering and Fiber Optics Lab	d	---	---	2	2	---	---	---	---	25	25	50	1
ET457	Lab (Elective III)	e	---	---	2	2	---	---	---	---	25	25	50	1
ET458	Project Phase II	d	---	---	4	4	---	---	---	---	50	100	150	4
ET459	Industrial Lecture	d	1	---	---	1	---	---	---	---	25	---	25	1
ET460	Industrial Visit/Industrial Training/Special Study/Entrepreneurship Development Programm Training	d	---	---	---	---	---	---	---	---	25	---	25	1
ET461	Self Study IV	d	---	---	---	---	---	---	---	---	---	---	50**	2
<b>Total</b>			<b>13</b>		<b>10</b>	<b>23</b>	<b>40</b>	<b>60</b>	<b>60</b>	<b>240</b>	<b>175</b>	<b>175</b>	<b>800</b>	<b>23</b>

**Th: Theory**

**ISA :Internal Sessional Assessment**

**Tut: Tutorial**

**ISE : In Semester Examination**

**Pr: Practical**

**ESE: End Semester Examination**

**Lab: Laboratory**

**ICA : Internal Continuous Assessment**

**Elective III**

**Elective II**

- A Neural Network and Fuzzy Logic
- B Multimedia Communication
- C Telecommunication Switching Network and Management
- D Nanotechnology

- A Advance Digital Signal Processing
- B Radiation and Antenna Design
- C Complementary Metal Oxide Semiconductor and Very Large Scale Integration Design
- D Industrial Automation and Control

- **\*\*Marks and hence grade of course ‘self study’ shall be based on one test each conducted on 20% syllabus of four courses – ET451, ET452, ET453, ET454. One faculty member should be appointed as course coordinator for the course ‘self study’ to compile the marks of all tests and enter in to institute’s Management Information System (MIS) software.**
- **Twenty percent syllabus for ‘self study’ shall be declared by course teacher at the beginning of semester. The teacher shall conduct the test examination for the self study syllabus of that course and submit the marks to the course coordinator.**
- **In the course ‘industrial lecture’, at least 12 lectures from industrial expert should be arranged and continuously assessed (six lectures in VI and VIII semester each)**

<b>Sr. No.</b>	<b>Category</b>	<b>Group Code</b>
<b>1</b>	<b>Basic Sciences</b>	<b>a</b>
<b>2</b>	<b>Basic Engg./ Skills</b>	<b>b</b>
<b>3</b>	<b>Humanities, Social Sciences and Management</b>	<b>c</b>
<b>4</b>	<b>Programme Core</b>	<b>d</b>
<b>5</b>	<b>Electives</b>	<b>e</b>