



Shri Vithal Education & Research Institute's

# COLLEGE OF ENGINEERING, PANDHARPUR



P.B No.54, Gopalpur - Ranjani Road, Gopalpur, Pandharpur - 413304, District. Solapur (Maharashtra)  
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Website.: www.sveri.ac.in (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur)  
NBA Accredited all eligible UG Programmes, NAAC Accredited Institute, ISO 9001:2015 Certified Institute.  
Accredited by The Institution of Engineers (India), Kolkata and TCS, Pune.

Ref.:-

Date:-

## 1.2.1 List of programs in which Choice Based Credit System (CBCS)/elective course system has been implemented

Programme Name : Electronics & Tele-communication Engineering			
Programme Code: 1-1408968324			
Sr. No.	Class Name	Status of implementation of CBCS / elective course system (Yes/No)	Year of implementation of CBCS / elective course system
1	F.E. Electronics & Tele-communication Engineering	Yes (CBCS)	2016-17
2	S.E. Electronics & Tele-communication Engineering	Yes (CBCS)	2017-18
3	T.E. Electronics & Tele-communication Engineering	Yes (CBCS)	2018-19
4	B.E. Electronics & Tele-communication Engineering	Yes (CBCS & Elective)	2019-2020
5	F. Y. B.Tech. Electronics & Tele-communication Engineering	Yes (CBCS)	2018-19
6	S. Y. B.Tech. Electronics & Tele-communication Engineering	Yes (CBCS)	2019-2020



*B. Pongse*

PRINCIPAL,  
College of Engineering  
PANDHARPUR



**SOLAPUR UNIVERSITY, SOLAPUR**

**FACULTY OF ENGINEERING & TECHNOLOGY**

**ALL BRANCHES**

**CBCS Syllabus for**

**F.E. (All Branches) w.e.f. Academic Year 2016-17**





**SOLAPUR UNIVERSITY, SOLAPUR**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**CBCS Curriculum for First Year (All Branches)**  
**WEF 2016-17**

- Semester I : Theory Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA		SA		Total
		L	T	P		ESE	ISE	ICA		
C011/ C012	Engineering Physics / Engineering Chemistry\$	4			4	70	30			100
C112	Engineering Mathematics I	3			3	70	30			100
C113	Applied Mechanics	4			4	70	30			100
C114	Basic Electrical Engineering	3			3	70	30			100
C115	Basic Mechanical Engineering	3			3	70	30			100
C116	Communication Skills	1			1		25			25
Total		18			18	350	175			525

- Semester I : Laboratory / Tutorial Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA		SA		Total
		L	T	P		ESE	ISE	ICA		
C011/ C012	Engineering Physics / Engineering Chemistry\$			2	1			25		25
C112	Engineering Mathematics I		1		1			25		25
C113	Applied Mechanics			2	1			25		25
C114	Basic Electrical Engineering			2	1			25		25
C115	Basic Mechanical Engineering			2	1			25		25
C116	Communication Skills			2	1			25		25
C117	Workshop Practice			2	1			25		25
Total			1	12	7			175		175
<b>Grand Total</b>		<b>18</b>	<b>1</b>	<b>12</b>	<b>25</b>	<b>350</b>	<b>175</b>	<b>175</b>		<b>700</b>

- Semester II : Theory Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA	SA		Total
		L	T	P		ESE	ISE	ICA	
C011/ C012	Engineering Physics / Engineering Chemistry\$	4			4	70	30		100
C122	Engineering Mathematics II	3			3	70	30		100
C123	Engineering Graphics	3			3	70	30		100
C124	Basic Civil Engineering	3			3	70	30		100
C125	Computer Programming	2			2		25		25
C126	Basic Electronics	2			2	35	15		50
C127	Professional Communication	1			1		25		25
Total		18			18	315	185		500

- Semester II : Laboratory / Tutorial Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA	SA		Total
		L	T	P		ESE	ISE	ICA	
C011/ C012	Engineering Physics / Engineering Chemistry\$			2	1			25	25
C122	Engineering Mathematics II		1		1			25	25
C123	Engineering Graphics			4	2			25	25
C124	Basic Civil Engineering			2	1			25	25
C125	Computer Programming			2	1	25#		25	50
C126	Basic Electronics			2*	1			25	25
C127	Professional Communication			2	1			25	25
C128	Audit Course- Workshop for Skill Development			@	AU	Audit Course			
Total			1	13	8	25		175	200
<b>Grand Total</b>		<b>18</b>	<b>1</b>	<b>13</b>	<b>26</b>	<b>340</b>	<b>185</b>	<b>175</b>	<b>700</b>

- Legends used –

L	Lecture	FA	Formative Assessment
T	Tutorial	SA	Summative Assessment
P	Lab Session	ESE	End Semester Examination
		ISE	In Semester Evaluation
		ICA	Internal Continuous Assessment

- **Notes-**

1. \$ - Indicates approximately half of the total students at FE will enroll under Group A and remaining will enroll under Group B.

Group A will take up course of Engineering Physics (theory & laboratory) in Semester I and will take up course of Engineering Chemistry (theory & laboratory) in semester II.

Group B will take up course of Engineering Chemistry (theory & laboratory) in Semester I and will take up course of Engineering Physics (theory & laboratory) in semester II

2. \* - Indicates the subject 'Basic Electronics' shall have lab session every alternate week
3. # - Indicates the subject 'Computer Programming' shall have a University 'Practical and Oral Examination' at the end of the semester assessing student's programming skills.
4. In Semester Evaluation (ISE) marks shall be based upon student's performance in minimum two tests & mid-term written test conducted & evaluated at institute level

Internal Continuous Assessment Marks (ICA) are calculated based upon student's performance during laboratory sessions / tutorial sessions

5. Audit Course 'Workshop for Skill Development' intends to develop few basic skills amongst student related to any one engineering discipline of student's choice (irrespective of his discipline of admission). There is no separate laboratory hours specified for this course. Student can use some of the respective laboratory sessions in the semester for this course as indicated below. If required, student can work beyond regular engagement hours under supervision of the concerned teacher to complete this course.

<i>Sr.</i>	<i>Skill Development in</i>	<i>Course of which some laboratory hours can be used</i>
1	Electronics, Electronics & Telecommunication, Electrical, Electrical & Electronics, Biomedical Engineering	Basic Electronics
2	Computer Science & Engineering, Information Technology	Computer Programming
3	Mechanical Engineering, Biomedical Engineering	Engineering Graphics
4	Civil Engineering	Basic Civil Engineering

Each institute is at liberty to decide content to be delivered under this course by an apt teacher. However it is desirable that this course shall nurture individual and team working skills of the student. Some of the exemplary skills (but not limited to) are listed in curriculum of this course.

The summative assessment of this course shall be carried out at institute level and the institute shall certify successful completion of this audit course by student.

6. @- indicates there is no separate laboratory hours for Audit Course- Workshop for Skill Development





# **SOLAPUR UNIVERSITY, SOLAPUR**

**FACULTY OF ENGINEERING & TECHNOLOGY**

**ELECTRONICS & TELECOMMUNICATION ENGINEERING**

## **Syllabus Structure for**

**S.E. (Electronics & Telecommunication Engineering) w.e.f. Academic Year 2017-18**

**T.E. (Electronics & Telecommunication Engineering) w.e.f. Academic Year 2018-19**

**B.E. (Electronics & Telecommunication Engineering) w.e.f. Academic Year 2019-20**

## **Choice Based Credit System**



## SOLAPUR UNIVERSITY, SOLAPUR

### Faculty of Engineering & Technology

**CBCS structure of S.E. Electronics & Telecommunication Engineering**

**W.E.F. 2017-2018 Semester I**

Course Code	Theory Course Name	Hrs./week			Credits	Examination Scheme				
		L	T	P		ISE	ESE	ICA	Total	
ET211	Engineering Mathematics – III	3	1	–	4	30	70	25	125	
ET212	Electronics Circuit Analysis and Design-I	4	–	–	4	30	70	–	100	
ET213	Network Theory & Analysis	4	–	–	4	30	70	–	100	
ET214	Digital Techniques	4	–	–	4	30	70	–	100	
ET215	Analog Communication	3	–	–	3	30	70	–	100	
	<b>Sub Total</b>	18	1	–	19	150	350	25	525	
	<b>Laboratory</b>									
							<b>ESE</b>			
							<b>POE</b>	<b>OE</b>		
ET212	Electronics Circuit Analysis and Design-I	–	–	2	1	–	50*	--	25	75
ET213	Network Theory & Analysis	–	–	2	1	–	–	–	25	25
ET214	Digital Techniques	--	--	2	1	--	50	--	25	75
ET215	Analog Communication	–	–	2	1	–	50	–	25	75
ET216	Electronic Software Lab-I	--	1	2	2	–	--	–	50	50
ENV21	Environmental Science-I	1	–	--	--	--	--	--	--	--
	<b>Sub Total</b>	--	1	10	6	–	150	–	150	300
	<b>Grand Total</b>	<b>18</b>	<b>2</b>	<b>10</b>	<b>25</b>	<b>150</b>	<b>500</b>	<b>175</b>	<b>825</b>	

Note: Abbreviations: L- Lectures, P-Practical, T-Tutorial, ISE-In-Semester Exam, ESE-End Semester Exam, ICA- Internal Continuous Assessment, ESE - University Examination (Theory &/ POE &/Oral examination)

**Note:** 1) \*- Practical and Oral Examination of Electronics Circuit Analysis and Design – I includes some of the practical from Network Theory and Analysis

2) Student is required to study and pass Environmental Science subject in Second Year of Engineering to become eligible for award of degree.





**SOLAPUR UNIVERSITY, SOLAPUR**  
**Faculty of Engineering & Technology**

*CBCS structure of S.E. Electronics & Telecommunication Engineering*  
*W.E.F. 2017-2018 Semester II*

Course Code	Theory Course Name	Hrs./week			Credits	Examination Scheme				
		L	T	P		ISE	ESE	ICA	Total	
ET221	Electronics Circuit Analysis and Design – II	4	–	–	4	30	70	–	100	
ET222	Data Structure	4	–	–	4	30	70	–	100	
ET223	Control Systems	3	–	–	3	30	70	–	100	
ET224	Linear Integrated Circuits	4	–	–	4	30	70	–	100	
ET225	Signals and Systems	3	1	–	4	30	70	25	125	
	<b>Sub Total</b>	18	1	–	19	150	350	25	525	
<b>Laboratory/Workshop</b>										
							<b>ESE</b>			
							<b>POE</b>	<b>OE</b>		
ET221	Electronics Circuit Analysis and Design – II	–	–	2	1	–	50\$	–	25	75
ET222	Data Structure	–	–	2	1	–	50	–	25	75
ET223	Control Systems	–	–	2	1	–	–	–	25	25
ET224	Linear Integrated Circuits	–	–	2	1	–	50	–	25	75
ET226	Electronic Software Lab-II	–	1	2	2	–	–	–	50	50
ENV22	Environmental Science-I	1	–	–	–	–	–	–	–	–
	<b>Sub Total</b>		1	10	6	–	150	–	150	300
	<b>Grand Total</b>	18	2	10	25	150	500	–	175	825

Note: Abbreviations: L-Lectures, P-Practical, T-Tutorial, ISE-In Semester Exam, ESE-End Semester Exam, ICA- Internal Continuous Assessment, ESE-University Examination (Theory &/ POE &/Oral examination)

Note: 1) \$- Practical and Oral Examination of Electronics Circuit Analysis and Design – II includes Some of the simulation practical from Electronic Software Lab-II

2) Student is required to study and pass Environmental Science subject in Second Year of Engineering to become eligible for award of degree.

**Note** –Batch size for the practical /tutorial shall be of 20 students. On forming the batches, if the strength of remaining students exceeds 9, then a new batch shall be formed.



# **SOLAPUR UNIVERSITY, SOLAPUR**

**FACULTY OF ENGINEERING & TECHNOLOGY**

**ELECTRONICS & TELECOMMUNICATION ENGINEERING**

**Syllabus for**

**T.E. (Electronics & Telecommunication Engineering)**

**w.e.f. Academic Year 2018-19**

**Choice Based Credit System**



**SOLAPUR UNIVERSITY, SOLAPUR**  
**Faculty of Engineering & Technology**

**CBCS structure of T.E. Electronics & Telecommunication Engineering W.E.F. 2018-19**

**Semester I**

Course Code	Theory Course Name	Hrs./week			Credits	Examination Scheme				
		L	T	P		ISE	ESE	ICA	Total	
ET311	Electro Magnetic Engg. & Radiating System	3	1	--	4	30	70	--	100	
ET312	Principles of Digital Communication	4	--	--	4	30	70	--	100	
ET313	Software Engineering & Project Management System	3	--	--	3	30	70	--	100	
ET314	Digital Signal Processing	4	--	--	4	30	70	--	100	
ET315	Microcontroller – I (8051)	4	--	--	4	30	70	--	100	
SLH31	Self Learning Course I -HSS	--	--	--	2	--	50	--	50	
<b>Sub Total</b>		18	1	--	21	150	400	--	550	
Course Code	Laboratory Course Name						ESE			
							POE	OE		
ET311	Electro Magnetic Engg. & Radiating System	--	--	2	1	--	--	--	25	25
ET312	Principles of Digital Communication	--	--	2	1	--	50	--	25	75
ET314	Digital Signal Processing	--	--	2	1	--	25	--	25	50
ET315	Microcontroller – I (8051)	--	--	2	1	--	50	--	25	75
ET316	Electronic Software Lab-III	--	1	2	2	--	--	--	50	50
<b>Sub Total</b>		--	2	10	6	--	125	--	150	275
<b>Grand Total</b>		<b>18</b>	<b>2</b>	<b>10</b>	<b>27</b>	<b>150</b>	<b>525</b>	<b>150</b>	<b>825</b>	

Abbreviations: L- Lectures, P –Practical, T- Tutorial, ISE-In Semester Exam., ESE - End Semester Exam, ICA- Internal Continuous Assessment ESE - University Examination (Theory &/ POE &/Oral examination)



**SOLAPUR UNIVERSITY, SOLAPUR**  
**Faculty of Engineering & Technology**

**CBCS structure of T.E. Electronics & Telecommunication Engineering W.E.F. 2018-19**

**Semester II**

Course Code	Theory Course Name	Hrs./week			Credits	Examination Scheme			
		L	T	P		ISE	ESE	ICA	Total
ET321	Radar & Microwave Engineering	4	–	–	4	30	70	–	100
ET322	Microcontroller-II (PIC)	4	–	–	4	30	70	–	100
ET323	Electronics Applications & System Design	4	1	–	5	30	70	–	100
ET324	Optical Communication	3	–	–	3	30	70	–	100
ET325	Mobile Communication	3	1	–	4	30	70	25	125
ET327	Self Learning Course II- Technical	–	–	–	2	--	50	–	50
<b>Sub Total</b>		18	2	–	22	150	400	--	575
Course Code	Laboratory Course Name								
							<b>ESE</b>		
							<b>POE</b>	<b>OE</b>	
ET321	Radar & Microwave Engineering	–	–	2	1	–	–	–	25
ET322	Microcontroller-II (PIC)	–	–	2	1	–	50	–	25
ET323	Electronics Applications & System Design	–	–	2	1	–	–	#50	25
ET324	Optical Communication	–	–	2	1	–	–	25	25
ET327	Mini Hardware Project	–	–	2	1	–	–	–	25
<b>Sub Total</b>		–	–	10	5	–	125	–	150
<b>Grand Total</b>		<b>18</b>	<b>2</b>	<b>10</b>	<b>27</b>	<b>150</b>	<b>525</b>	<b>150</b>	<b>825</b>

Abbreviations: L- Lectures, P –Practical, T- Tutorial, ISE-In Semester Exam., ESE - End Semester Exam, ICA- Internal Continuous Assessment ESE - University Examination (Theory &/ POE &/Oral examination)

- **Note –**

1. Batch size for the practical /tutorial shall be of 15 students. On forming the batches, if the strength of remaining student exceeds 7, then a new batch shall be formed.
2. Vocational Training (evaluated at B.E. Part-I) of minimum 15 days shall be completed in any vacation after S.E. Part-II but before B.E. Part-I & the report shall be submitted and evaluated in B.E. Part-I
3. Student shall select one Self Learning Course at T.E. Part I and T.E. Part II each from ‘Humanities & Social Sciences (HSS)’ and ‘Technical’ Group respectively
4. Curriculum for Humanities and Social Sciences (HSS) Self Learning Courses is common for all under graduate programmes of faculty of Engineering and Technology
5. For TE Part I -
  - A. Student can select a Self Learning Course from Solapur University, Solapur HSS Course List and appear for its examination as and when conducted by Solapur University, Solapur

**OR**

- B. Student can enroll for National Programme on Technology Enhanced Learning (NPTEL) course, complete its assignments and appear for certificate examination as and when conducted by NPTEL.

*For more details about Self Learning Course (HSS) please refer to separate rule document available from Solapur University, Solapur*

*More details about NPTEL are available at <http://nptel.ac.in>*

6. Minimum four assignments for Self Learning Modules at T.E. Part I and T.E. Part II shall be submitted by the students which shall be evaluated by a Module Coordinator assigned by institute / department
7. Project group for T.E.(E&TC) Part II Mini Hardware Project shall not be of more than **three** student
8. Project group for B.E.(E&TC) Part I and Part II shall not be of more than **three** student.
9. ICA assessment shall be a continuous process based on student’s performance in – class tests, assignments, homework, subject seminars, quizzes, laboratory books and their interaction and attendance for theory and lab sessions as applicable.
10. # indicates Oral Examination of Electronics Applications & System Design is combined with Mini Hardware Project.

**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**



**Name of the Faculty: Science & Technology**

**CHOICE BASED CREDIT SYSTEM**

**Syllabus: Electronics and Telecommunication  
Engineering**

**Name of the Course: B.E.- IV (Sem. VII & VIII)**

**(Syllabus to be implemented from w.e.f. June 2019)**

# Punyashlok Ahilyadevi Holkar Solapur University, Solapur

## Faculty of Engineering & Technology

CBCS structure of B.E.Electronics & Telecommunication Engineering W.E.F. 2019-20

### Semester I

Course Code	Theory Course Name	Hrs./week			Credits	Examination Scheme				
		L	T	P		ISE	ESE	ICA	Total	
ET411	Computer Communication Network	4	--	--	4	30	70	25	125	
ET412	Embedded System Design	4	--	--	4	30	70	25	125	
ET413	Satellite Communication	3	1	--	4	30	70	25	125	
ET414	Database Management System (DBMS)	3	1	--	4	30	70	25	125	
<b>ET415</b>	<b>Elective - I</b>	4	--	--	4	30	70	25	125	
ET416	Seminar & Project	--	--	--	--	--	--	25	25	
ET417	Vocational Training	--	--	--	--	--	--	25	25	
<b>Sub Total</b>		18	2	--	20	150	350	175	675	
Course Code	Laboratory Course Name									
							<b>ESE</b>			
							<b>POE</b>	<b>OE</b>		
ET411	Computer Communication Network	--	--	2	1	--	50	--	--	50
ET412	Embedded System Design	--	--	2	1	--	50	--	--	50
ET413	Satellite Communication	--	--	--	--	--	--	--	--	--
ET414	Database Management System (DBMS)	--	--	--	--	--	--	--	--	--
<b>ET415</b>	<b>Elective - I</b>	--	--	2	1	--	--	--	--	--
ET416	Seminar & Project	--	--	4	2	--	--	50	--	50
ET417	Vocational Training	--	--	--	1	--	--	--	--	--
<b>Sub Total</b>		--	--	10	6	--	150		--	150
<b>Grand Total</b>		18	2	10	26	150	500		175	825

#### **Elective I**

**ET415A--- Image & Video Processing**

**ET415B---Optimization Techniques**

**ET415C---Electronic Product Design**

**ET415D---Advanced DSP**

# Punyashlok Ahilyadevi Holkar Solapur University, Solapur

## Faculty of Engineering & Technology (Revised from 2018-19)

CBCS structure of B.E. Electronics & Telecommunication Engineering W.E.F. 2019-20

### Semester II

Course Code	Theory Course Name	Hrs./week			Credits	Examination Scheme				
		L	T	P		ISE	ESE	ICA	Total	
ET421	Internet of Things (IoT)	3	1	--	4	30	70	25	125	
ET422	Multimedia Communication Technique	4	--	--	4	30	70	25	125	
ET423	VLSI Design	4	--	--	4	30	70	25	125	
<b>ET424</b>	<b>Elective – II</b>	4	--	--	4	30	70	25	125	
ET425	Project	--	--	--	--	--	--	100	100	
<b>Sub Total</b>		<b>15</b>	<b>1</b>	<b>--</b>	<b>16</b>	<b>120</b>	<b>280</b>	<b>200</b>	<b>600</b>	
Course Code	Laboratory Course Name									
							ESE			
							POE	OE		
ET421	Internet of Things (IoT)	--	--	--	--	--	--	25	--	25
ET422	Multimedia Communication Technique	--	--	2	1	--	--	50	--	50
ET423	VLSI Design	--	--	2	1	--	50	--	--	50
<b>ET424</b>	<b>Elective – II</b>	--	--	2	1	--	--	--	--	--
ET425	Project	--	--	8	4	--	100	--	--	100
<b>Sub Total</b>		<b>--</b>	<b>--</b>	<b>14</b>	<b>7</b>	<b>--</b>	<b>225</b>	<b>--</b>	<b>--</b>	<b>225</b>
<b>Grand Total</b>		<b>15</b>	<b>1</b>	<b>14</b>	<b>23</b>	<b>120</b>	<b>505</b>	<b>200</b>	<b>825</b>	

### **Elective – II**

**ET424A---Network Security**

**ET424B---Soft Computing**

**ET424C---DSP Processors & Application**

**ET424D---Data Analytics**

□ Note:

- Minimum strength of the students for Elective is 15.
- Term work assessment shall be a continuous process based on student's performance in class tests, assignments, homework, subject seminars, quizzes, and laboratory books and their interaction and attendance for theory and lab sessions as applicable.
- The batch size for the practical's/tutorials is of 15 students. On forming the batches, if the strength of remaining students exceeds 7 students, then a new batch be formed. For project the group shall be of three students.





# **SOLAPUR UNIVERSITY, SOLAPUR**

**FACULTY OF ENGINEERING & TECHNOLOGY**

**ALL BRANCHES**

**CBCS Syllabus for**

**First Year B.Tech. (All Branches)**

**w.e.f. Academic Year 2018-19**



**SOLAPUR UNIVERSITY, SOLAPUR**  
**FACULTY OF ENGINEERING & TECHNOLOGY**  
**CBCS Curriculum for First Year B.Tech. (All Branches)**  
**WEF 2018-19**

• Semester I : Theory Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA			Total
		L	T	P		ESE	ISE	ICA	
C011/ C012	Engineering Physics / Engineering Chemistry\$	3			3	70	30		100
C112	Engineering Mathematics I	3			3	70	30		100
C113	Basic Electrical & Electronics Engineering	4			4	70	30		100
C114	Engineering Mechanics	3			3	70	30		100
C115	Basic Mechanical Engineering	3			3	70	30		100
C116	Communication Skills	1			1		25		25
<b>Total</b>		<b>17</b>			<b>17</b>	<b>350</b>	<b>175</b>		<b>525</b>

• Semester I : Laboratory / Tutorial Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA			Total
		L	T	P		ESE	ISE	ICA	
C011/ C012	Engineering Physics / Engineering Chemistry\$			2	1			25	25
C112	Engineering Mathematics I		1		1			25	25
C113	Basic Electrical & Electronics Engineering			2	1			25	25
C114	Engineering Mechanics			2	1			25	25
C115	Basic Mechanical Engineering			2	1			25	25
C116	Communication Skills			2	1			25	25
C117	Workshop Practice			2	1			25	25
<b>Total</b>			<b>1</b>	<b>12</b>	<b>7</b>			<b>175</b>	<b>175</b>
<b>Grand Total</b>		<b>17</b>	<b>1</b>	<b>12</b>	<b>24</b>	<b>350</b>	<b>175</b>	<b>175</b>	<b>700</b>
C118	Induction Program	<i># (Please see note below)</i>							

- Semester II : Theory Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA	SA		Total
		L	T	P		ESE	ISE	ICA	
C011/ C012	Engineering Physics / Engineering Chemistry\$	3			3	70	30		100
C122	Engineering Mathematics II	3			3	70	30		100
C123	Engineering Graphics & Design	3			3	70	30		100
C124	Basic Civil Engineering	3			3	70	30		100
C125	Programming for Problem Solving	2			2		25		25
C126	Professional Communication	1			1		25		25
Total		15			15	280	170		450
C127	Democracy, Elections and Good Governance					30			30

- Semester II : Laboratory / Tutorial Courses

Course Code	Name of the Course	Engagement Hours			Credits	FA	SA		Total
		L	T	P		ESE (POE)	ISE	ICA	
C011/ C012	Engineering Physics / Engineering Chemistry\$			2	1			25	25
C122	Engineering Mathematics II		1		1			25	25
C123	Engineering Graphics & Design			4	2			50	50
C124	Basic Civil Engineering			2	1			25	25
C125	Programming for Problem Solving			4	2	50#		50	100
C127	Professional Communication			2	1			25	25
Total			1	14	8	50		200	250
<b>Grand Total</b>		<b>15</b>	<b>1</b>	<b>14</b>	<b>23</b>	<b>330</b>	<b>170</b>	<b>200</b>	<b>700</b>
C128	Democracy, Elections and Good Governance							20	

- Legends used –

L	Lecture	FA	Formative Assessment
T	Tutorial	SA	Summative Assessment
P	Lab Session	ESE	End Semester Examination
		ISE	In Semester Evaluation
		ICA	Internal Continuous Assessment

- Notes-

1. \$ - Indicates approximately half of the total students at FE will enroll under Group A and remaining will enroll under Group B.

Group A will take up course of Engineering Physics (theory & laboratory) in Semester I and will take up course of Engineering Chemistry (theory & laboratory) in semester II.

Group B will take up course of Engineering Chemistry (theory & laboratory) in Semester I and will take up course of Engineering Physics (theory & laboratory) in semester II

2. # - Indicates the subject 'Programming for Problem Solving' shall have a University 'Practical and Oral Examination' at the end of the semester assessing student's programming skills.

3. In Semester Evaluation (ISE) marks shall be based upon student's performance in minimum two tests & mid-term written test conducted & evaluated at institute level

Internal Continuous Assessment Marks (ICA) are calculated based upon student's performance during laboratory sessions / tutorial sessions

4. Democracy, Elections & Good Governance is mandatory course. The marks earned by student with this course shall not be considered for calculation of SGPA/CGPA. However student must complete ICA of 20 marks and End Semester Examination (ESE) of 30 marks (as prescribed by university, time to time) for fulfillment of this course. This course is not considered as a passing head for counting passing heads for ATKT. However, student must pass this subject for award of the degree

5. Student must complete induction program of minimum five days before commencement of the regular academic schedule at the first semester.

## GUIDELINES FOR INDUCTION PROGRAM (C128)

New entrants into an Engineering program come with diverse thoughts, mind set and different social, economical, regional and cultural backgrounds. It is important to help them adjust to the new environment and inculcate in them the ethos of the institution with a sense of larger purpose.

A **Five day** induction program for the new UG entrant students is proposed at the commencement of the first semester. It is expected to complete this induction program before commencement of the regular academic schedule.

Its purpose is to make new entrants comfortable in their new environment, open them up, set a healthy daily routine for them, create bonding amongst the peers as well as between faculty and students, develop awareness, sensitivity and understanding of the self, people around them, society at large, and nature.

The Induction Program shall encompass (but not limited to) below activity –

1. Physical Activities
2. Creative Arts
3. Exposure to Universal Human Values
4. Literary Activities
5. Proficiency Modules
6. Lectures by Experts / Eminent Persons
7. Visit to Local Establishments like Hospital / Orphanage
8. Familiarization to Department

Induction Program Course do not have any marks or credits however performance of students for Induction Program is assessed at institute level using below mandatory criteria –

1. Attendance and active participation
2. Report writing

**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**



**Name of the Faculty: Science & Technology**

**CHOICE BASED CREDIT SYSTEM**

**Syllabus: ELECTRONICS & TELECOMMUNICATION  
ENGINEERING**

**Name of the Course: S.Y. B. Tech. (Sem- III & IV )**

**(Syllabus to be implemented from w.e.f. June 2019)**



**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**

**FACULTY OF SCIENCE & TECHNOLOGY**

**ELECTRONICS & TELECOMMUNICATION ENGINEERING**

**Syllabus Structure for**

**S.Y. B.Tech. (Electronics & Telecommunication Engineering)**

**w.e.f. Academic Year 2019-20**

**T.Y. B.Tech. (Electronics & Telecommunication Engineering)**

**w.e.f. Academic Year 2020-21**

**Final Year B.Tech. (Electronics & Telecommunication Engineering)**

**w.e.f. Academic Year 2021-22**

**Choice Based Credit System**

**सोलापूर विद्यापीठ**

**॥ विद्यया संपन्नता ॥**

# Punyashlok Ahilyadevi Holkar Solapur University, Solapur

## Faculty of Science & Technology

(Revised from 2018-19)

C.B.C.S. Structure of S.Y. B.Tech. Electronics & Telecommunication Engineering W.E.F. 2019-20

### Semester I

Course Code	Theory Course Name	Hrs./week			Credits	Examination Scheme				
		L	T	P		ISE	ESE	ICA	Total	
ET211	Engineering Mathematics – III	3	1	--	4	30	70	25	125	
ET212	Electronic Circuit Analysis and Design	4	--	--	4	30	70	25	125	
ET213	Network Theory and Analysis	4	--	--	4	30	70	25	125	
ET214	Digital Techniques	4	--	--	4	30	70	25	125	
ET215	Analog Communication	3	--	--	3	30	70	25	125	
<b>Sub Total</b>		18	1	--	19	150	350	125	625	
ENV21	Environmental Science	1	--	--	--	--	--	--	--	
Course Code	Laboratory Course Name									
							ESE			
							POE	OE		
ET212	Electronic Circuit Analysis and Design	--	--	2	1	--	50*	--	--	50
ET213	Network Theory and Analysis	--	--	2	1	--	--	--	--	--
ET214	Digital Techniques	--	--	2	1	--	50	--	--	50
ET215	Analog Communication	--	--	2	1	--	25	--	--	25
E216	Electronics Software Lab-I	--	1	2	2	--	--	--	50	50
<b>Sub Total</b>		--	1	10	6	--	125		50	175
<b>Grand Total</b>		<b>19</b>	<b>2</b>	<b>10</b>	<b>25</b>	<b>150</b>	<b>475</b>	<b>175</b>	<b>800</b>	

Abbreviations: L- Lectures, P –Practical, T- Tutorial, ISE- In Semester Exam, ESE-End Semester Exam, OE-Oral Examination, POE- Practical Oral Examination, ICA- Internal Continuous Assessment

□ **Note:** \*

- Practical and Oral Examination of Electronics Circuit Analysis and Design includes some of the practical from subject of Network Theory and Analysis



# Punyashlok Ahilyadevi Holkar Solapur University, Solapur

## Faculty of Science & Technology

(Revised from 2018-19)

C.B.C.S. Structure of S.Y. B. Tech. Electronics & Telecommunication Engineering W.E.F. 2019-20

### Semester II

Course Code	Theory Course Name	Hrs./week			Credits	Examination Scheme				
		L	T	P		ISE	ESE	ICA	Total	
ET221	Control System	3	--	--	3	30	70	25	125	
ET222	Analog Integrated Circuits	4	--	--	4	30	70	25	125	
ET223	Principles of Digital Communication	4	--	--	4	30	70	25	125	
ET224	Signals and Systems	3	1	--	4	30	70	25	125	
ET225	Data Structures	4	--	--	4	30	70	25	125	
<b>Sub Total</b>		18	1	--	19	150	350	125	625	
ENV22	Environmental Science	1	--	--	--	--	--	--	--	
Course Code	Laboratory Course Name									
							ESE			
							POE	OE		
ET221	Control System	--	--	2	1	--	--	--	--	--
ET222	Analog Integrated Circuits	--	--	2	1	--	50	--	--	50
ET223	Principles of Digital Communication	--	--	2	1	--	25	--	--	25
ET225	Data Structures	--	--	2	1	--	50	--	--	50
ET226	Electronic Software Lab-II	--	1	2	2	--	--	--	50	50
<b>Sub Total</b>		--	1	10	6	--	125	--	50	175
<b>Grand Total</b>		<b>19</b>	<b>2</b>	<b>10</b>	<b>25</b>	<b>150</b>	<b>475</b>	<b>175</b>	<b>800</b>	

Abbreviations: L- Lectures, P –Practical, T- Tutorial, ISE- In Semester Exam, ESE - End Semester Exam, OE-Oral Examination, POE- Practical Oral Examination, ICA- Internal Continuous Assessment

□ Note:

1. Student is required to study and pass Environmental Science subject in Second Year to become eligible for award of degree.
2. Batch size for the practical /tutorial shall be of 20 students. On forming the batches, if the strength of remaining students exceeds 9, then a new batch shall be formed.
3. Vocational Training (evaluated at Final Year Part-I) of minimum 15 days shall be completed in any vacation after S.Y. Part-II but before Final Year Part-I & the report shall be submitted and evaluated in Final Year Part-I
4. Student shall select one Self Learning Module at T.Y. Part I and T.Y. Part II each from Technical and Humanities and Social Sciences Group with at least one Self Learning Module from the Humanities and Social Sciences Group
5. Curriculum for Humanities and Social Sciences Self Learning Modules is common for all under graduate programmes of faculty of Engineering and Technology
6. ICA assessment shall be a continuous process based on student's performance in – class tests, assignments, homework, subject seminars, quizzes, laboratory books and their interaction and attendance for theory and lab sessions as applicable

