



Bansilal Ramnath Agarwal Charitable Trust's  
**Vishwakarma Institute of Information Technology, Pune-48**  
**Department of Electronics & Telecommunication Engineering**

**Second Year B. Tech. Electronics & Telecommunication Engineering (SYBT) - Semester I**  
**(Pattern 2017)**

Course Code	Course	Course Type	Teaching Scheme			Examination Scheme					Total	Credits
						Formative Assessment		Summative Assessment				
			L	T	P	ISE		CE	ESE	PR/OR		
T1	T2											
ETUA21171	Engineering Mathematics III	TH	4	-	-	15	15	20	50	-	100	4
ETUA21172	Mathematics Practice – III	CE	-	1	-	-	-	50	-	-	50	1
ETUA21173	Signals & Systems	TH	3	1	-	15	15	20	50	-	100	4
ETUA21174	Semiconductor Devices & Circuits*	TH	3	-	-	15	15	20	50	-	100	3
ETUA21175	Digital Electronics*	TH	3	-	-	15	15	20	50	-	100	3
ETUA21176	Network Theory*	TH	3	-	-	15	15	20	50	-	100	3
ETUA21177	Lab Practice -I	CE-PR/O	-	-	6	-	-	50	-	50	100	3
ETUA21178	Skill Development (Electronic Workshop Practice–I)	CE	-	-	2	-	-	50	-	-	50	1
ETUA21179	Environment Studies	CE	1	-	2	-	-	50	-	-	50	2
A2	Audit Course	-	-	-	-	-	-	-	-	-	-	-
	Total	-	17	2	10	75	75	300	250	50	750	24

Theory: 1Hr. = 1 Credit, Practical: 2 Hrs. = 1 Credit, #1 hr. = 1 Credit, Audit Course: No Credits

\*Courses have lab practice component of 2 hrs./week each under Lab Practice head.

**Audit Courses:** Professional Ethics; Cyber Security; Value Engineering and Human Rights; Legislative Procedures; Technical Writing/Documentation; Sports/Yoga; Performing Art such as music, dance, and drama etc.; Languages; Online certification course (minimum two weeks); Participation in intercollegiate co-curricular and extra-curricular activities.

  
BoS Chairman

  
Dean Academics

  
Director





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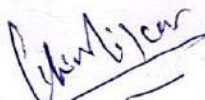
**Second Year B. Tech. Electronics & Telecommunication Engineering (SYBT) - Semester II**  
**(Pattern 2017)**


Course Code	Course	Course Type	Teaching Scheme			Examination Scheme					Total	Credits
						Formative Assessment			Summative Assessment			
			L	T	P	ISE		CE	ESE	PR/OR		
T1	T2											
ETUA22171	Control Systems	TH	4	-	-	15	15	20	50	-	100	4
ETUA22172	Control Systems - Practice	CE	-	1	-	-	-	50	-	-	50	1
ETUA22173	Communication Engineering-I*	TH	3	-	-	15	15	20	50	-	100	3
ETUA22174	Integrated Circuits*	TH	3	-	-	15	15	20	50	-	100	3
ETUA22175	Data Structures*	TH	3	-	-	15	15	20	50	-	100	3
ETUA22176	Economics	TH	3	-	-	15	15	20	50	-	100	3
ETUA22177	Lab Practice-II	CE-PR/O	-	-	6	-	-	50	-	50	100	3
ETUA22178	Skill Development (Electronic Workshop Practice-II)	CE	-	-	2	-	-	50	-	-	50	1
ETUA22179	Project Management	CE	2	-	-	-	-	50	-	-	50	2
A2	Audit Course	-	-	-	-	-	-	-	-	-	-	-
	Total	-	18	1	8	75	75	300	250	50	750	23

Theory: 1Hr. = 1 Credit, Practical: 2 Hrs. = 1 Credit, #1 hr. = 1 Credit, Audit Course: No Credits  
 \*Courses have lab practice component of 2 hrs./week each under Lab Practice head.

**Audit Courses:** Professional Ethics; Cyber Security; Value Engineering and Human Rights; Legislative Procedures; Technical Writing/Documentation; Sports/Yoga; Performing Art such as music, dance, and drama etc.; Languages; Online certification course (minimum two weeks); Participation in intercollegiate co-curricular and extra-curricular activities.

  
 BoS Chairman

  
 Dean Academics

  
 Director



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**Third Year B. Tech. Electronics & Telecommunication Engineering (TYBT) – Semester V**  
**(Pattern 2017)**

Course Code	Course	Course Type	Teaching Scheme			Examination Scheme					Total	Credits
						Formative Assessment		Summative Assessment				
			L	T	P	ISE		CE	ESE	PR/ OR		
						T1	T2					
ETUA31171	Discrete Time Signal Processing*	TH	3	-	-	15	15	20	50	-	100	3
ETUA31172	Microcontroller and Applications*	TH	3	-	-	15	15	20	50	-	100	3
ETUA31173	Communication Engineering – II*	TH	3	-	-	15	15	20	50	-	100	3
ETUA31174	Electromagnetic Engineering	TH	3	-	-	15	15	20	50	-	100	3
IE31175	Elective-I (Interdisciplinary)	TH	3	-	-	15	15	20	50	-	100	3
ETUA31176	Lab Practice – III	CE-PR/OR	-	-	6	-	-	50	-	50	100	3
ETUA31177	Employability (Skills in Electronic Design)	CE-PR/OR	2	-	2	-	-	50	-	-	50	3
ETUA31178	Mini Project	CE	-	1	2	-	-	50	-	-	50	2
A3	Audit Course	AU	-	-	-	-	-	-	-	-	-	-
	Total	-	17	1	10	75	75	250	250	50	700	23

L: 1Hr. = 1 Credit, P: 2 Hrs. = 1 Credit, T: 1 hr. = 1 Credit, Audit Course: No Credits

\*Courses have lab practice component of 2 hrs./week each under Lab Practice III head.

**Elective I (Interdisciplinary)**

IE31175CS: Internet of Things

IE31175ET: Industrial Automation

IE31175ME: Product Design and Engineering

IE31175CV: Optimization Techniques

IE31175IT: Human Computer Interaction

**Audit Courses:** Professional Ethics; Cyber Security; Value Engineering and Human Rights; Legislative Procedures; Technical Writing/Documentation; Sports/Yoga; Performing Art such as music, dance, and drama etc.; Languages; Online certification course (minimum two weeks); Participation in intercollegiate co-curricular and extra-curricular activities.

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Deaf Academics

Director





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**Third Year B. Tech. Electronics & Telecommunication Engineering (TYBT) – Semester VI**  
**(Pattern 2017)**

(Pattern 2017)												
Course Code	Course	Course Type	Teaching Scheme			Examination Scheme					Total	Credits
						Formative Assessment			Summative Assessment			
			L	T	P	ISE		CE	ESE	PR/ OR		
T1	T2											
ETUA32171	Power Electronics- I*	TH	3	-	-	15	15	20	50	-	100	3
ETUA32172	Information Theory and Coding Techniques*	TH	3	-	-	15	15	20	50	-	100	3
ETUA32173	Elective – II*	TH	3	-	-	15	15	20	50	-	100	3
ETUA32174	Lab Practice – IV	CE-PR/OR	-	-	6	-	-	50	-	50	100	3
ETUA32175A / ETUA32175B / IE32175B	Internship / Value added Course	CE-PR/OR	0/ 4	-	16/ 8	-	-	50	-	50	100	8
A3	Audit Course	AU	-	-	-	-	-	-	-	-	-	-
	Total	-	9/ 13	-	22/ 14	45	45	160	150	100	500	20

L: 1Hr. = 1 Credit, P: 2 Hrs. = 1 Credit, T: 1 hr. = 1 Credit, Audit Course: No Credits

\*Courses have lab practice component of 2 hrs./week each under Lab Practice IV head.

Course Code	Elective II	Course Code	Value added course
ETUA32173A	Advanced Micro processors & DSP Processors	ETUA32175B1	Machine Learning
ETUA32173B	Fiber Optic Communication	ETUA32175B2	Mechatronics and Robotics
ETUA32173C	Digital System Design using Verilog	IE32175B1	General Studies for Indian Services and National Service Scheme
		IE32175B2	Social Enterprise and Entrepreneurship
		IE32175B3	National Service Scheme and Social Entrepreneurship

**Internship / Value Added Course:**

Value added course (Theory 60 Hrs. and Practical 120 Hrs.) will have 4 hrs. theory/week and 8 hrs. practical/week. Students those who will register for value added course will earn the required credits in the regular semester. However, Students who will register for internship, commencement of internship will start from 1<sup>st</sup> June and will be of Eight weeks (June-July). However, students will be encouraged to register for both the value added course and Internship. In that case, two courses; **Elective-IV** (Final Year B.Tech., Semester-I) and **Open elective** (Final Year B.Tech., Semester-II) will be waived off to compensate the additional eight credits earned by the student for value added course and Internship at Third Year B.Tech. (Semester- II).

**Audit Courses:** Professional Ethics; Cyber Security; Value Engineering and Human Rights; Legislative Procedures; Technical Writing/Documentation; Sports/Yoga; Performing Art such as music, dance, and drama etc.; Languages; Online certification course (minimum two weeks); Participation in intercollegiate co-curricular and extra-curricular activities.

  
**BOS Chairman**

T.Y.B.Tech (Pattern 2017)

  
**Dean Academics**

E & TC Engineering

  
**Director**



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**FINAL YEAR B. TECH (E&TC ENGINEERING), SEMESTER VII (PATTERN 2017)**  
**For Academic Year 2020-21**

**MODULE-I**

Course Code	Course	Course Type	Teaching Scheme			Examination Scheme					Total	Credits
			L	T	P	CIE	ISE	SCE	ESE	PR/OR/TW		
ETUA40171	Embedded system and Operating System	TH	3	-	2	20	30	20	30	25	125	4
ETUA40172	Computer Networks and Security	TH	3	-	2	20	30	20	30	25	125	4
ETUA40173	Mobile Communication and Networks	TH	3	-	2	20	30	20	30	25	125	4
ETUA40174	Elective-III	TH	3	-	2	20	30	20	30	25	125	4
ETUA40175	Intellectual Property Rights	CE	2	-	-	-	-	50	-	-	50	2
ETUA40176	Project Work*	CE-PR/OR	-	-	10	100	-	-	-	50	150	5
A4	Audit Course	AU	-	-	-	-	-	-	-	-	-	-
	Total	-	14	-	18	180	120	130	120	150	700	23

**Elective – III:**

ETUA40174A: Deep Learning

ETUA40174B: Robotic Systems

ETUA40174C: Power Electronics for Electric Vehicles

ETUA40174D: Speech and Audio Processing / Business Intelligence

**MODULE-II**

Course Code	Course	Course Type	Teaching Scheme			Examination Scheme					Total	Credits
			L	T	P	CIE	ISE	SCE	ESE	PR/OR/TW		
ETUA40177	Semester Internship *	CE-PR/OR	-	-	24	100	-	-	-	50	150	12
A4	Audit Course	AU	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	24	100	-	-	-	50	150	12

List of Audit Courses: Professional Ethics; Cyber Security; Value Engineering and Human Rights; Legislative Procedures; Technical Writing/Documentation; Sports/Yoga; Performing Art such as music, dance, and drama etc.; Languages; Online certification course (minimum two weeks); Participation in intercollegiate co-curricular and extra-curricular activities.

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**FINAL YEAR B. TECH (E & TC ENGINEERING), SEMESTER VIII (PATTERN 2017)**  
**MODULE-III**

Course Code	Course	Course Type	Teaching Scheme			Examination Scheme					Total	Credits
			L	T	P	CIE	ISE	SCE	ESE	PR/OR/TW		
ETUA42171	Elective-IV	TH	3	-	2	20	30	20	30	25	125	4
IOEUA42172	Open Elective-I	TH	2	-	2	20	30	20	30	25	125	3
IOEUA42173	Open Elective-II	TH	3	-	-	20	30	20	30	-	100	3
ETUA42174	Introduction to Research	CE-PR/OR	1	-	2	-	-	-	-	25	25	2
A4	Audit course	AU	-	-	-	-	-	-	-	-	-	-
	Total	-	9	-	6	60	90	60	90	75	375	12

Elective-IV		Open Elective-I		Open Elective-II	
ETUA42171A	Image and Video Processing	IOEUA42172A	Introduction to Gaming	IOEUA42173A	FinTech (Financial Technology)
ETUA42171B	High Performance Computing	IOEUA42172B	Inferential Statistics for Data Science	IOEUA42173B	Agriculture Electronics
		IOEUA42172C	Solar and wind Energy	IOEUA42173C	Operation Research
ETUA42171C	Wireless Networks	IOEUA42172D	Numerical Methods in Engineering	IOEUA42173D	Total Quality Management
		IOEUA42172E	Social Media Analytics	IOEUA42173E	Blockchain Technology

**MODULE-IV**

Course Code	Course	Course Type	Teaching Scheme			Examination Scheme					Total	Credits
			L	T	P	CIE	ISE	SCE	ESE	PR/OR/TW		
ETUA40177	Semester Internship*	CE-PR/OR	-	-	24	100	-	-	-	50	150	12
A4	Audit Course	AU	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	24	100	-	-	-	50	150	12

List of Audit Courses: Professional Ethics; Cyber Security; Value Engineering and Human Rights; Legislative Procedures; Technical Writing/Documentation; Sports/Yoga; Performing Art such as music, dance, and drama etc.; Languages; Online certification course (minimum two weeks); Participation in intercollegiate co-curricular and extra-curricular activities.

BoS Chairman  
 Final Year B.Tech (Pattern 2017)

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 E & TC Engineering

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**FINAL YEAR B. TECH (E & TC ENGINEERING), SEMESTER VIII (PATTERN 2017)**  
**MODULE-V**

Course Code	Course	Course Type	Teaching Scheme			Examination Scheme					Total	Credits
			L	T	P	CIE	ISE	SCE	ESE	PR/OR/TW		
ETUA40171	Embedded system and Operating System	TH	3	-	2	20	30	20	30	25	150	4
ETUA40172	Computer Networks and Security	TH	3	-	2	20	30	20	30	25	150	4
ETUA40173	Mobile Communication and Networks	TH	3	-	2	20	30	20	30	25	100	4
ETUA40174	Elective-III	TH	3	-	2	20	30	20	30	25	100	4
ETUA40175	Intellectual Property Rights	CE	2	-	-	-	-	50	-	-	50	2
ETUA40176	Project Work	CE-PR/OR	-	-	10	100	-	-	-	50	150	5
A4	Audit Course	AU	-	-	-	-	-	-	-	-	-	-
	Total	-	14	-	18	180	120	130	120	150	700	23

**Elective – III:**

ETUA40174A: Deep Learning

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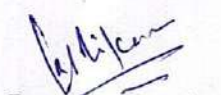
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**NOTE:**

Students who will register for Module-I in Semester VII have to register either of Module-III or Module-IV in Semester VIII.

Students who will register for Module-II in Semester VII have to register for Module-V in Semester VIII.

  
**BoS Chairman**

  
**Dean Academics**

  
**Director**