

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**

<b>1.</b>	<b>OBJECTIVE</b>	<p>B.Tech is a full-time four year graduation programme, which aims at transforming a student into a technically sound professional. The syllabus contains courses on basic sciences, technical arts, humanities &amp; liberal arts and professional courses. The mix of these courses has been evolved with an aim to produce professionals who have knowledge not only of Engineering but who are good managers to contribute in a cross-functional team and have human values.</p> <p>Being a professional programme, it ensures a healthy balance between theoretical foundation and practical exposure to the present-day world. The emphasis is to develop all round personality that would enable the students to take up the challenges of the corporate world and also become responsible citizens of the society.</p>			
<b>2.</b>	<b>DURATION (IN MONTHS)</b>	48 (Full Time)			
<b>3.</b>	<b>INTAKE</b>	180			
<b>4.</b>	<b>RESERVATION</b>	<b>I. Within the sanctioned intake</b>	<b>a) SC (In Percentage)</b>	<b>b) ST (In Percentage)</b>	<b>c) Differently abled (In Percentage)</b>
			15	7.5	3
		<b>II. Over and above the sanctioned intake</b>	<b>a) Kashmiri Migrants (In Seats)</b>		<b>b) International Students (In Percentage)</b>
			2		20
<b>5.</b>	<b>ELIGIBILITY</b>	<p>Passed 10+2 examination with Physics and Mathematics as compulsory subjects along with one of Chemistry/ Computer Science/ Electronics/ Information Technology/Biology/Informatics Practices/ Biotechnology/Technical Vocational subject/ Agriculture/Engineering Graphics/Business Studies /Entrepreneurship</p> <p>Obtained at least 45% marks (40% marks in case of candidates belonging to reserved category) in the above subjects taken together.</p> <p>OR</p>			

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**

		<p>Passed D.Voc. Stream in the same or allied sector.</p> <p>(The Constituent will offer suitable bridge courses such as Mathematics, Physics, Engineering drawing, etc., for the students coming from diverse backgrounds to prepare Level playing field and desired learning outcomes of the programme)</p> <p>B. Tech.: Lateral Entry</p> <p>Passed Minimum Three-years/ Two-year (Lateral Entry) Diploma examination with at least 45% marks (40% marks in case of candidates belonging to reserved category) in ANY branch of Engineering and Technology.</p> <p>OR</p> <p>Passed B.Sc. Degree from a recognized University as defined by UGC, with at least 45% marks (40% marks or equivalent grade for Scheduled Caste /Scheduled Tribes) and passed 10+2 examination with Mathematics as a subject.</p> <p>OR</p> <p>Passed B. Voc/3 year D.Voc. Stream in the same allied sector.</p> <p>(The Constituent will offer suitable bridge courses such as Mathematics, Physics, Engineering drawing, etc., for the students coming from diverse backgrounds to achieve desired learning outcomes of the programme)</p>
6.	<b>SELECTION PROCEDURE</b>	Merit list by a valid score of Symbiosis Entrance Test (SIT EEE) or Joint Entrance Examination (JEE - Mains) or Any State Government Engineering Entrance Test.
7.	<b>MEDIUM OF INSTRUCTION</b>	English
8.	<b>PROGRAMME PATTERN</b>	Semester
9.	<b>COURSE &amp; SPECIALISATION</b>	<p>Annexure A: Bachelor of Technology (Electronics and Telecommunication)</p> <p>Students may pursue optional 'Honours' specialisation in one of the specialisation areas by completing additional 20 credits in Semester 4,5, 6, 7 as specified in Annexure B or optional 'Minor' Specialisation by completing additional 18 credits in Semester - 3, 4, 5, 6 as specified in Annexure C.</p>

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**

		Annexure B: Honours specialisation area 1.Embedded Systems 2.Semiconductor Technology Annexure C: Minor specialisation area 1.Artificial Intelligence and Machine Learning 2. Cyber Security 3. Quantum Technologies			
<b>10.</b>	<b>FEE</b>	<b>Academic Fee p.a</b>	<b>Institute Deposit</b>	<b>Total</b>	
	<b>Indian Students (Amount in INR)</b>	375000	20000	395000	
	<b>International Students</b>	<b>NRI/ PIO/ OCI Category (Amount in US\$)</b>	6600	275	6875
		<b>Foreign National Category (Amount in US\$)</b>	1300	275	1575
<b>11. ASSESSMENT</b>	The theory courses will have 40% Continuous Assessment and 60% Term End [University] examination, Lab courses (Practical) will have 60% Continuous Assessment and 40% Term End [University] examination however, some courses (not more than 30% of the total programme credits) may have 100% Continuous Assessment.				
<b>12. STANDARD OF PASSING</b>	The assessment of the student for each examination is done, based on relative performance. Maximum Grade Point (GP) is 10 corresponding to O (Outstanding). For all courses, a student is required to pass both internal and external examination separately with a minimum Grade Point of 4 corresponding to Grade P. Students securing less than 40% absolute marks in each head of passing will be declared FAIL. The University awards a degree to the student who has achieved a minimum CGPA of 4 out of maximum of 10 CGPA for the programme.				
<b>13. AWARD OF DEGREE</b>	Bachelor of Technology (Electronics and Telecommunication) OR				

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**

		<p>Bachelor of Technology (Electronics and Telecommunication) with Honours in Embedded Systems/ Semiconductor Technology</p> <p>OR</p> <p>Bachelor of Technology (Electronics and Telecommunication) with Minor in Artificial Intelligence and Machine Learning / Cyber Security / Quantum Technologies as applicable will be awarded at the end of semester 8 examination by taking into consideration the performance of all semester examinations after obtaining minimum 4.00 CGPA out of 10 CGPA.</p>
--	--	--

14. CLASSIFICATION OF CREDITS											
Semester	Basic Sciences	Engineering Sciences	Professional Core	Professional Elective	Humanities and Social Sciences including Management	Multidisciplinary Open Electives	Project/ Internship / Seminar	Indian Knowledge System	Total Credits	No. of Mandatory Non-Credit Course/s	No. of Non-Credit Audit Course/s
<b>Track 1</b>											
1	8	8	3	0	1	0	0	0	20	0	As per the student's choice
2	8	5	3	0	2	0	0	2	20	1*	
3	3	0	15	2	0	0	0	0	20	2*	
4	0	2	7	6	2	3	0	0	20	2*	
5	0	1	8	10	0	3	0	0	22	2*	
6	0	0	8	14	0	0	0	0	22	1*	
7	0	0	7	8	1	0	6	0	22	1*	
8	0	0	0	0	0	0	14	0	14	0	
<b>Total</b>	<b>19</b>	<b>16</b>	<b>51</b>	<b>40</b>	<b>6</b>	<b>6</b>	<b>20</b>	<b>2</b>	<b>160</b>	<b>0</b>	
<b>Track 2</b>											
1	8	8	3	0	1	0	0	0	20	0	As per the student's choice
2	8	5	3	0	2	0	0	2	20	1*	
3	3	0	15	2	0	0	0	0	20	2*	
4	0	2	7	6	2	3	0	0	20	2*	
5	0	1	8	10	0	3	0	0	22	2*	
6	0	0	8	14	0	0	0	0	22	1*	

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**

7	0	0	4	0	0	0	18	0	22	1*	
8	0	0	0	0	0	0	14	0	14	0	
<b>Total</b>	<b>19</b>	<b>16</b>	<b>48</b>	<b>32</b>	<b>5</b>	<b>6</b>	<b>32</b>	<b>2</b>	<b>160</b>	<b>0</b>	
<b>Optional Additional Courses (Honours)</b>											
4	0	0	4	0	0	0	0	0	4	0	As per the student's choice
5	0	0	3	0	0	0	0	0	3	0	
6	0	0	7	0	0	0	0	0	7	0	
7	0	0	0	0	0	0	6	0	6	0	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>20</b>	<b>0</b>	
<b>Optional Additional Courses (Minor)</b>											
3	0	0	4	0	0	0	0	0	4	0	As per the student's choice
4	0	0	4	0	0	0	0	0	4	0	
5	0	0	4	0	0	0	0	0	4	0	
6	0	0	6	0	0	0	0	0	6	0	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0</b>	
<b>Optional Additional Courses (Minor) – Quantum Technologies</b>											
3	0	0	3	0	0	0	0	0	3	0	As per the student's choice
4	0	0	6	0	0	0	0	0	6	0	
5	0	0	6	0	0	0	0	0	6	0	
6	0	0	3	0	0	0	0	0	3	0	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0</b>	

\*Satisfactory completion of non-credit courses 'Health and Wellness', and 'Vasudhaiva Kutumbakam' and 'Career Essentials I to V' is mandatory for award of degree.

**Additional Note:** #Health and Wellness Module I and Module II will be conducted during the semesters mentioned in the programme structure. However, the course will be listed on the students' grade sheets as "Health and Wellness" in the semester in which the institute's course code is officially assigned.



**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

Catalog Course Code	Course Code	Course Title	Nature	Specialisation/ Area/ Department	Teaching Scheme (Hours Per Week)			Examination Scheme (Marks)				Total Credits	Total
					L	T	Lab	Practical		Theory			
								CA	ESE	CA	ESE		
<b>Semester : 1</b>													
<b>Generic Core Courses</b>													
TEE7238	701230101	Calculus and Linear Algebra	BS		3	1	0	0	0	40	60	4	100
TEE7241	701230102	Engineering Chemistry for Semiconductor Fabrication	BS		3	0	2	15	10	30	45	4	100
TEE7314	701230103	Fundamentals of Electrical and Electronics Engineering	ES		3	0	2	15	10	30	45	4	100
TEE7299	701230104	Programming in C	ES		0	0	4	50	0	0	0	2	50
TM2278	701230105	Introduction to Environment and Sustainability	ES		0	0	2	25	0	0	0	1	25
TEE7364	701230106	Tinker and IDEA Lab	ES		0	0	2	25	0	0	0	1	25
TEE7308	701230107	Computational Techniques for Electronics Engineering	PC		2	0	2	15	10	50	0	3	75
T6873	701230108	Creative Thinking	HSMC		1	0	0	0	0	25	0	1	25
<b>Total</b>					<b>12</b>	<b>1</b>	<b>14</b>	<b>145</b>	<b>30</b>	<b>175</b>	<b>150</b>	<b>20</b>	<b>500</b>

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

Catalog Course Code	Course Code	Course Title	Nature	Specialisation/ Area/ Department	Teaching Scheme (Hours Per Week)			Examination Scheme (Marks)				Total Credits	Total
								Practical		Theory			
					L	T	Lab	CA	ESE	CA	ESE		
<b>Semester : 2</b>													
<b>Generic Core Courses</b>													
TEE7234	701230201	Applied Mathematics and Techniques	BS		3	1	0	0	0	40	60	4	100
TEE7252	701230202	Physics of Electronics and Semiconductors	BS		3	0	2	15	10	30	45	4	100
TEE7293	701230203	Exploratory Data Analysis using Python	ES		1	0	4	50	0	25	0	3	75
TEE7324	701230204	Engineering Graphics	ES		0	0	4	30	20	0	0	2	50
TEE7309	701230205	Digital Circuits and Logic Design	PC		2	0	2	15	10	20	30	3	75
THM6150	701230206	Technical and Professional Communication Skills	HSMC		0	0	2	25	0	0	0	1	25
T6732	701230207	Critical Thinking	HSMC		1	0	0	0	0	25	0	1	25
THM6144	701230208	Indian Knowledge Systems	IKS		2	0	0	0	0	50	0	2	50
TEE7265	701230209	Career Essentials- I *			0	0	0	0	0	0	0	Mandatory Non-Credit Course	0
<b>Total</b>					<b>12</b>	<b>1</b>	<b>14</b>	<b>135</b>	<b>40</b>	<b>190</b>	<b>135</b>	<b>20</b>	<b>500</b>

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

Catalog Course Code	Course Code	Course Title	Nature	Specialisation/ Area/ Department	Teaching Scheme (Hours Per Week)			Examination Scheme (Marks)				Total Credits	Total
								Practical		Theory			
					L	T	Lab	CA	ESE	CA	ESE		
<b>Semester : 3</b>													
<b>Generic Core Courses</b>													
TE7678	701230301	Mathematical Transform Techniques	BS		2	1	0	0	0	30	45	3	75
TEE7473	701230302	Microcontrollers and Applications	PC		3	0	2	15	10	75	0	4	100
TEE7465	701230303	Electronic Devices and Circuits	PC		3	0	2	15	10	30	45	4	100
TEE7460	701230304	Analog and Digital Communication	PC		3	0	2	15	10	30	45	4	100
TEE7474	701230305	Network Analysis and Synthesis	PC		2	1	0	0	0	75	0	3	75
TEE7419	701230306	Career Essentials - II *	MC		0	0	0	0	0	0	0	Mandatory Non-Credit Course	0
TH4788		Health and Wellness Module I #	MC		0	0	0	0	0	0	0	0	0
<b>Total</b>					<b>13</b>	<b>2</b>	<b>6</b>	<b>45</b>	<b>30</b>	<b>240</b>	<b>135</b>	<b>18</b>	<b>450</b>

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

<b>Generic Elective Courses</b>													
TEE7506	701230307	Foundation for Electronic Manufacturing Systems	PC		1	0	2	15	10	25	0	2	50
TEE7511	701230308	Foundation for Firmware Development	PC		1	0	2	15	10	25	0	2	50
<b>Total Required Credits</b>								<b>15</b>	<b>10</b>	<b>25</b>	<b>0</b>	<b>2</b>	<b>50</b>
Catalog Course Code	Course Code	Course Title	Nature	Specialisation/ Area/ Department	Teaching Scheme (Hours Per Week)			Examination Scheme (Marks)				Total Credits	Total
								Practical		Theory			
					L	T	Lab	CA	ESE	CA	ESE		
<b>Semester : 4</b>													
<b>Generic Core Courses</b>													
P4271 TE7546	701230401	Data Structures and Algorithms Data Structures and Algorithms Lab	ES		0	0	4	50	0	0	0	2	50
TEE7461	701230402	Analog Circuit Design	PC		3	0	2	15	10	30	45	4	100
TEE7462	701230403	Computer Networks	PC		2	0	2	15	10	20	30	3	75
T8000	701230404	Service Learning	HSMC		0	0	4	50	0	0	0	2	50
TEE7420	701230405	Career Essentials - III *	MC		0	0	0	0	0	0	0	Mandatory Non-Credit Course	0
TH4789		Health and Wellness Module II #	MC		0	0	0	0	0	0	0	0	0

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

				Total	5	0	12	130	20	50	75	11	275
<b>Generic Elective Courses</b>													
TEE7508	701230406	PCB Design	PC		3	0	6	45	30	30	45	6	150
TEE7505	701230407	Embedded Hardware and Software	PC		3	0	6	45	30	30	45	6	150
<b>Total Required Credits</b>								<b>45</b>	<b>30</b>	<b>30</b>	<b>45</b>	<b>6</b>	<b>150</b>
<b>Multidisciplinary Open Elective (Choose any one course)</b>													
TEE7416	701230408	Quantum Computing for Engineers	MOPE	Applied Science	2	1	0	0	0	30	45	3	75
TEE7414	701230409	Mathematics for Data Science	MOPE	Applied Science	2	1	0	0	0	30	45	3	75
TEE7438	701230410	Smart Cities Planning and Management	MOPE	Civil Engineering	2	1	0	0	0	30	45	3	75
TEE7435	701230411	Intelligent Waste Management Techniques	MOPE	Civil Engineering	2	1	0	0	0	30	45	3	75
TEE7458	701230412	Web Technologies	MOPE	Computer Science and Engineering	2	1	0	0	0	30	45	3	75
TEE7447	701230413	Data Science	MOPE	Computer Science and Engineering	2	1	0	0	0	30	45	3	75
TE7351	701230414	3D Printing and Prototyping	MOPE	Mechanical Engineering	2	1	0	0	0	30	45	3	75
TEE7476	701230415	Battery Management Systems	MOPE	Mechanical Engineering	2	1	0	0	0	30	45	3	75

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

TEE7425	701230416	Fundamentals of Machine Learning	MOPE	Artificial Intelligence and Machine Learning	2	1	0	0	0	30	45	3	75	
TEE7418	701230417	AI System Development	MOPE	Artificial Intelligence and Machine Learning	2	1	0	0	0	30	45	3	75	
TEE7489	701230418	Fundamentals of Robotics and Automation	MOPE	Robotics and Automation	2	1	0	0	0	30	45	3	75	
TEE7499	701230419	Robotic Process Automation	MOPE	Robotics and Automation	2	1	0	0	0	30	45	3	75	
<b>Total Required Credits</b>									<b>0</b>	<b>0</b>	<b>30</b>	<b>45</b>	<b>3</b>	<b>75</b>
Catalog Course Code	Course Code	Course Title	Nature	Specialisation/ Area/ Department	Teaching Scheme (Hours Per Week)			Examination Scheme (Marks)				Total Credits	Total	
					L	T	Lab	Practical		Theory				
								CA	ESE	CA	ESE			
<b>Semester : 5</b>														
<b>Generic Core Courses</b>														
TEE7478	701230501	Design Thinking	ES		1	0	0	0	0	25	0	1	25	
P4279	701230502	Digital Signal Processing	PC		2	1	2	15	10	30	45	4	100	
P4280	701230503	VLSI Design	PC		3	0	2	15	10	30	45	4	100	
P4784	701230504	Career Essentials - IV *	MC		0	0	0	0	0	0	0	Mandatory Non-Credit	0	

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

													Course	
SMC001	701230505	Vasudhaiva Kutumbakam *	MC		0	0	0	0	0	0	0	0	Mandatory Non-Credit Course	0
<b>Total</b>					<b>6</b>	<b>1</b>	<b>4</b>	<b>30</b>	<b>20</b>	<b>85</b>	<b>90</b>	<b>9</b>	<b>225</b>	
<b>Generic Elective Courses</b>														
P6778	701230506	SMT Assembly Line	PC		3	0	6	45	30	30	45	6	150	
P6779	701230507	Firmware Development, Testing & Validation	PC		3	0	6	45	30	30	45	6	150	
<b>Total Required Credits</b>					<b>45</b>	<b>30</b>	<b>30</b>	<b>45</b>	<b>6</b>	<b>150</b>				
<b>Program Elective (PE)</b>														
P4285	701230508	Antenna and Wave Propagation	PE		3	0	2	15	10	30	45	4	100	
P4286	701230509	Digital Image Processing	PE		3	0	2	15	10	30	45	4	100	
P4287	701230510	Digital Design and Verification	PE		3	0	2	15	10	30	45	4	100	
P4288	701230511	Operating Systems Fundamentals	PE		3	0	2	15	10	30	45	4	100	
P4289	701230512	Robotics and Automation	PE		3	0	2	15	10	30	45	4	100	
P4290	701230513	Power Electronics	PE		3	0	2	15	10	30	45	4	100	
<b>Total Required Credits</b>					<b>15</b>	<b>10</b>	<b>30</b>	<b>45</b>	<b>4</b>	<b>100</b>				
<b>Multidisciplinary Open Elective (Choose any one course)</b>														
P5210	701230514	Financial Mathematics	MOPE	Applied Science	2	1	0	0	0	30	45	3	75	
P5211	701230515	Advanced Materials	MOPE	Applied Science	2	1	0	0	0	30	45	3	75	

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

P4656	701230516	Sustainability Engineering- Design and Innovation	MOPE	Civil Engineering	2	1	0	0	0	30	45	3	<b>75</b>		
P4658	701230517	Occupational Health and Safety Management	MOPE	Civil Engineering	2	1	0	0	0	30	45	3	<b>75</b>		
P4840	701230518	Introduction to Cloud Computing	MOPE	Computer Science and Engineering	2	1	0	0	0	30	45	3	<b>75</b>		
P4844	701230519	Agile Methodologies	MOPE	Computer Science and Engineering	2	1	0	0	0	30	45	3	<b>75</b>		
P5277	701230520	Electric and Hybrid Vehicles	MOPE	Mechanical Engineering	2	1	0	0	0	30	45	3	<b>75</b>		
T7650	701230521	Six Sigma	MOPE	Mechanical Engineering	2	1	0	0	0	30	45	3	<b>75</b>		
P4789	701230522	Optimization for ML Systems	MOPE	Artificial Intelligence and Machine Learning	2	1	0	0	0	30	45	3	<b>75</b>		
P4790	701230523	Deep Learning Essentials	MOPE	Artificial Intelligence and Machine Learning	2	1	0	0	0	30	45	3	<b>75</b>		
P5216	701230524	Industrial Robotics	MOPE	Robotics and Automation	2	1	0	0	0	30	45	3	<b>75</b>		
P5217	701230525	PLC and SCADA	MOPE	Robotics and Automation	2	1	0	0	0	30	45	3	<b>75</b>		
<b>Total Required Credits</b>										<b>0</b>	<b>0</b>	<b>30</b>	<b>45</b>	<b>3</b>	<b>75</b>

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

Catalog Course Code	Course Code	Course Title	Nature	Specialisation/ Area/ Department	Teaching Scheme (Hours Per Week)			Examination Scheme (Marks)				Total Credits	Total
								Practical		Theory			
					L	T	Lab	CA	ESE	CA	ESE		
<b>Semester : 6</b>													
<b>Generic Core Courses</b>													
P4328	701230601	Embedded System Design	PC		3	0	2	15	10	30	45	4	100
P4327	701230602	Wireless Communication	PC		3	0	2	25	0	75	0	4	100
P4785	701230603	Career Essentials - V *	MC		0	0	0	0	0	0	0	Mandatory Non-Credit Course	0
<b>Total</b>					<b>6</b>	<b>0</b>	<b>4</b>	<b>40</b>	<b>10</b>	<b>105</b>	<b>45</b>	<b>8</b>	<b>200</b>
<b>Generic Elective Courses</b>													
P6781	701230604	Electronic Product Compliance	PC		3	0	6	45	30	30	45	6	150
P6782	701230605	Firmware Applications	PC		3	0	6	45	30	30	45	6	150
<b>Total Required Credits</b>								<b>45</b>	<b>30</b>	<b>30</b>	<b>45</b>	<b>6</b>	<b>150</b>
<b>Program Elective (PE)-1</b>													
P4329	701230606	Microwaves, Radar and Electronic Navigation	PE		3	0	2	15	10	30	45	4	100
P4330	701230607	Artificial Intelligence & Machine Learning	PE		3	0	2	15	10	30	45	4	100
P4331	701230608	CMOS VLSI Design	PE		3	0	2	15	10	30	45	4	100
P4332	701230609	IoT and Applications	PE		3	0	2	15	10	30	45	4	100

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

P4333	701230610	Industrial Automation with PLC and SCADA	PE		3	0	2	15	10	30	45	4	100
P4334	701230611	Biomedical Electronics	PE		3	0	2	15	10	30	45	4	100
<b>Total Required Credits</b>								<b>15</b>	<b>10</b>	<b>30</b>	<b>45</b>	<b>4</b>	<b>100</b>
<b>Program Elective (PE)-2</b>													
P4335	701230612	Information Theory and Coding	PE		3	0	2	15	10	30	45	4	100
P4336	701230613	High-Performance Computing	PE		3	0	2	15	10	30	45	4	100
P4337	701230614	Mixed Signal Design	PE		3	0	2	15	10	30	45	4	100
P4338	701230615	Real Time Systems	PE		3	0	2	15	10	30	45	4	100
P4339	701230616	Building Automation	PE		3	0	2	15	10	30	45	4	100
P4340	701230617	Quantum Electronics	PE		3	0	2	15	10	30	45	4	100
<b>Total Required Credits</b>								<b>15</b>	<b>10</b>	<b>30</b>	<b>45</b>	<b>4</b>	<b>100</b>
Catalog Course Code	Course Code	Course Title	Nature	Specialisation/ Area/ Department	Teaching Scheme (Hours Per Week)			Examination Scheme (Marks)				Total Credits	Total
								Practical		Theory			
					L	T	Lab	CA	ESE	CA	ESE		
<b>Semester : 7</b>													
<b>Generic Core Courses</b>													
T7804	701230701	Project	PIS		0	0	8	60	40	0	0	4	100
SMC003	701230702	Health and Wellness *	MC		0	0	0	0	0	0	0	Mandatory Non-Credit Course	0
<b>Total</b>					<b>0</b>	<b>0</b>	<b>8</b>	<b>60</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>100</b>

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

<b>Generic Elective Courses</b>													
P6783	701230703	Project Based Learning	PIS		0	0	6	50	0	0	0	2	50
<b>Total Required Credits</b>								<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>50</b>
<b>Generic Core Courses - Track 1</b>													
P4404	701230704	Feedback Control Systems	PC		2	0	2	15	10	20	30	3	75
F0004	701230705	Flexi-Credit Course	PC		3	0	2	25	0	75	0	4	100
P4406	701230706	Organizational Behaviour	HSMC		1	0	0	0	0	25	0	1	25
<b>Total Required Credits</b>								<b>40</b>	<b>10</b>	<b>120</b>	<b>30</b>	<b>8</b>	<b>200</b>
<b>Programme Elective-I (Choose any one course)</b>													
P4387	701230707	5G Technology	PE		3	0	2	15	10	30	45	4	100
P5248	701230708	Automatic Train Protection System - KAVACH	PE		3	0	2	15	10	30	45	4	100
P4389	701230709	Low Power VLSI Design	PE		3	0	2	15	10	30	45	4	100
P4391	701230710	Embedded Artificial Intelligence	PE		3	0	2	15	10	30	45	4	100
P4392	701230711	Autonomous Systems	PE		3	0	2	15	10	30	45	4	100
P4393	701230712	Electric Vehicles	PE		3	0	2	15	10	30	45	4	100
<b>Total Required Credits</b>								<b>15</b>	<b>10</b>	<b>30</b>	<b>45</b>	<b>4</b>	<b>100</b>
<b>Programme Elective-II (Choose any one course)</b>													
P4395	701230713	Software Defined Radio	PE		3	0	2	15	10	30	45	4	100
P4397	701230714	Computer Vision	PE		3	0	2	15	10	30	45	4	100
P4398	701230715	FPGA Programming	PE		3	0	2	15	10	30	45	4	100
P4399	701230716	Cyber Physical System	PE		3	0	2	15	10	30	45	4	100
P4765	701230717	Advanced Control Systems Engineering	PE		3	0	2	15	10	30	45	4	100
P4401	701230718	Wireless Sensor Network	PE		3	0	2	15	10	30	45	4	100

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

<b>Total Required Credits</b>										<b>15</b>	<b>10</b>	<b>30</b>	<b>45</b>	<b>4</b>	<b>100</b>
<b>Generic Core Courses - Track 2</b>															
F0004	701230719	Flexi-Credit Course	PC		4	0	0	0	0	100	0	4	100		
<b>Total Required Credits</b>										<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>4</b>	<b>100</b>
<b>Generic Elective Courses Group (Choose any one Course)</b>															
T7912	701230720	Startup Internship	PIS		0	0	24	180	120	0	0	12	300		
T7912	701230721	Research Internship	PIS		0	0	24	180	120	0	0	12	300		
T7912	701230722	Industry Internship	PIS		0	0	24	180	120	0	0	12	300		
<b>Total Required Credits</b>										<b>180</b>	<b>120</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>300</b>
Catalog Course Code	Course Code	Course Title	Nature	Specialisation/ Area/ Department	Teaching Scheme (Hours Per Week)			Examination Scheme (Marks)				Total Credits	Total		
								Practical		Theory					
					L	T	Lab	CA	ESE	CA	ESE				
<b>Semester : 8</b>															
<b>Generic Core Courses</b>															
T7912	701230801	Internship	PIS		0	0	24	180	120	0	0	12	300		
T7802	701230802	Seminar	PIS		0	0	4	30	20	0	0	2	50		
<b>Total</b>					<b>0</b>	<b>0</b>	<b>28</b>	<b>210</b>	<b>140</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>350</b>		

Abbreviations (Nature)	Description
------------------------	-------------



**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

<b>BS</b>	Basic Sciences
<b>ES</b>	Engineering Sciences
<b>PC</b>	Professional Core
<b>PE</b>	Professional Elective
<b>HSMC</b>	Humanities and Social Sciences including Management
<b>MOPE</b>	Multidisciplinary Open Electives
<b>PIS</b>	Project, Internship, Seminar
<b>IKS</b>	Indian Knowledge System
<b>L</b>	Lecture
<b>MC</b>	Mandatory Course
<b>T</b>	Tutorial
<b>CA</b>	Continuous Assessment
<b>ESE</b>	End Semester Examination
<b>LAB</b>	Laboratory

**Track 1 (T1):** For Regular Students

**Track 2 (T2):** For Students opting for Internship/ Entrepreneurship

**Definition:**

**Honours:** Students have the option to pursue an "Honours" degree by completing an additional 20 credits within their major discipline, focusing on more advanced, specialised, emerging, or multidisciplinary courses beyond the standard requirements of the B.Tech degree.

**Minors:** Students have the option to pursue a "Minor" by completing 18 credits in a discipline/ specialisation other than their major discipline beyond the standard requirements of the B.Tech. Degree.

Semester	Continuous Assessment	End Semester Examination	Total Credits	Total Marks
----------	-----------------------	--------------------------	---------------	-------------



**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure A**

		<b>Track 1</b>		
Semester 1	8	12	20	500
Semester 2	7	13	20	500
Semester 3	8	12	20	500
Semester 4	7	13	20	500
Semester 5	3	19	22	550
Semester 6	7	15	22	550
Semester 7	7	15	22	550
Semester 8	0	14	14	350
<b>Total</b>	<b>47</b>	<b>113</b>	<b>160</b>	<b>4000</b>
		<b>Track 2</b>		
Semester 1	8	12	20	500
Semester 2	7	13	20	500
Semester 3	8	12	20	500
Semester 4	7	13	20	500
Semester 5	3	19	22	550
Semester 6	7	15	22	550
Semester 7	6	16	22	550
Semester 8	0	14	14	350
<b>Total</b>	<b>46</b>	<b>114</b>	<b>160</b>	<b>4000</b>

---

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure B**

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure B**

<b>Optional 'Honours' Specialisation</b>													
Catalog Course Code	Course Code	Course Title	Nature	Specialisation/ Area/ Department	Teaching Scheme (Hours Per Week)			Examination Scheme (Marks)				Total Credits	Total
								Practical		Theory			
					L	T	Lab	CA	ESE	CA	ESE		
<b>Semester : 4</b>													
<b>Embedded Systems</b>													
<b>Specialisation Core Courses</b>													
TEE7507	701230420	Microcontrollers and Embedded C Programming	PC		3	0	2	15	10	30	45	4	100
<b>Total</b>					<b>3</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>10</b>	<b>30</b>	<b>45</b>	<b>4</b>	<b>100</b>
<b>Semester : 4</b>													
<b>Semiconductor Technology</b>													
<b>Specialisation Core Courses</b>													
TEE7471	701230421	Introduction to Microfabrication	PC		3	0	2	15	10	30	45	4	100
<b>Total</b>					<b>3</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>10</b>	<b>30</b>	<b>45</b>	<b>4</b>	<b>100</b>
<b>Semester : 5</b>													
<b>Embedded Systems</b>													
<b>Specialisation Core Courses</b>													
P4768	701230526	Automotive Embedded Systems	PC		3	0	0	0	0	30	45	3	75
<b>Total</b>					<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>45</b>	<b>3</b>	<b>75</b>



**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure B**

<b>Semester : 5</b>													
<b>Semiconductor Technology</b>													
<b>Specialisation Core Courses</b>													
TEE7058	701230527	Semiconductor Equipment Design and Technology	PC		3	0	0	0	0	30	45	3	75
<b>Total</b>					<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>45</b>	<b>3</b>	<b>75</b>
<b>Semester : 6</b>													
<b>Embedded Systems</b>													
<b>Specialisation Core Courses</b>													
P4769	701230618	Model Based Design	PC		3	0	2	15	10	30	45	4	100
TEE7048	701230619	Embedded Cyber Security	PC		3	0	0	0	0	30	45	3	75
<b>Total</b>					<b>6</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>10</b>	<b>60</b>	<b>90</b>	<b>7</b>	<b>175</b>
<b>Semester : 6</b>													
<b>Semiconductor Technology</b>													
<b>Specialisation Core Courses</b>													
P4770	701230620	Application-Specific Integrated Circuit Design and Fabrication	PC		3	0	2	15	10	30	45	4	100
TEE7049	701230621	Semiconductor Materials Synthesis and Characterization	PC		3	0	0	0	0	30	45	3	75
<b>Total</b>					<b>6</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>10</b>	<b>60</b>	<b>90</b>	<b>7</b>	<b>175</b>
<b>Semester : 7</b>													
<b>Embedded Systems</b>													
<b>Specialisation Core Courses</b>													
T7804	701230723	Honours Project	PIS		0	0	8	60	40	0	0	4	100
T7802	701230724	Honours Seminar	PIS		0	0	4	30	20	0	0	2	50
<b>Total</b>					<b>0</b>	<b>0</b>	<b>12</b>	<b>90</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>150</b>





---

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure C**

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure C**

<b>Optional 'Minor' Specialisation</b>													
Catalog Course Code	Course Code	Course Title	Nature	Specialisation/ Area/ Department	Teaching Scheme (Hours Per Week)			Examination Scheme (Marks)				Total Credits	Total
								Practical		Theory			
					L	T	Lab	CA	ESE	CA	ESE		
<b>Semester : 3</b>													
<b>Artificial Intelligence and Machine Learning</b>													
<b>Specialisation Core Courses</b>													
TEE7424	701230309	Elements of AI	PC		4	0	0	0	0	40	60	4	100
<b>Total</b>					<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>60</b>	<b>4</b>	<b>100</b>
<b>Semester : 3</b>													
<b>Cyber Security</b>													
<b>Specialisation Core Courses</b>													
TEE7445	701230310	Cybersecurity Foundation	PC		4	0	0	0	0	40	60	4	100
<b>Total</b>					<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>60</b>	<b>4</b>	<b>100</b>
<b>Semester : 3</b>													
<b>Quantum Technologies</b>													
<b>Specialisation Core Courses</b>													
P6788	701230311	Foundations of Quantum Computing	PC		3	0	0	0	0	40	60	3	75
<b>Total</b>					<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>60</b>	<b>3</b>	<b>75</b>

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure C**

<b>Semester : 4</b>													
<b>Artificial Intelligence and Machine Learning</b>													
<b>Specialisation Core Courses</b>													
TEE7427	701230422	Machine Learning Fundamentals	PC		4	0	0	0	0	40	60	4	100
<b>Total</b>					<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>60</b>	<b>4</b>	<b>100</b>
<b>Semester : 4</b>													
<b>Cyber Security</b>													
<b>Specialisation Core Courses</b>													
TE7017	701230423	Network Security	PC		4	0	0	0	0	40	60	4	100
<b>Total</b>					<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>60</b>	<b>4</b>	<b>100</b>
<b>Semester : 4</b>													
<b>Quantum Technologies</b>													
<b>Specialisation Core Courses</b>													
P6784	701230424	Foundations of Quantum Technologies	PC		3	0	0	0	0	30	45	3	75
P6785	701230425	Quantum Technologies Lab	PC		2	0	2	15	10	20	30	3	75
<b>Total</b>					<b>5</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>10</b>	<b>50</b>	<b>75</b>	<b>6</b>	<b>150</b>
<b>Semester : 5</b>													
<b>Artificial Intelligence and Machine Learning</b>													
<b>Specialisation Core Courses</b>													
TE7136	701230528	Deep Learning	PC		4	0	0	0	0	40	60	4	100
<b>Total</b>					<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>60</b>	<b>4</b>	<b>100</b>

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure C**

<b>Semester : 5</b>													
<b>Cyber Security</b>													
<b>Specialisation Core Courses</b>													
P4775	701230529	Mobile Security and Forensics	PC		4	0	0	0	0	40	60	4	100
<b>Total</b>					<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>60</b>	<b>4</b>	<b>100</b>
<b>Semester : 5</b>													
<b>Quantum Technologies</b>													
<b>Specialisation Core Courses</b>													
P6789	701230530	Survey of Quantum Technologies and Applications	PC		3	0	0	0	0	30	45	3	75
P6786	701230531	Introduction to Quantum Computation	PC		3	0	0	0	0	30	45	3	75
<b>Total</b>					<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>90</b>	<b>6</b>	<b>150</b>
<b>Semester : 6</b>													
<b>Artificial Intelligence and Machine Learning</b>													
<b>Specialisation Core Courses</b>													
F0003	701230622	Flexi-Credit Course	PC		3	0	0	0	0	75	0	3	75
P4534	701230623	Reinforcement Learning	PC		2	0	2	15	10	20	30	3	75
<b>Total</b>					<b>5</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>10</b>	<b>95</b>	<b>30</b>	<b>6</b>	<b>150</b>
<b>Semester : 6</b>													
<b>Cyber Security</b>													
<b>Specialisation Core Courses</b>													
F0003	701230624	Flexi-Credit Course	PC		3	0	0	0	0	75	0	3	75
P4853	701230625	Cyber Security and Artificial Intelligence	PC		2	0	2	15	10	20	30	3	75
<b>Total</b>					<b>5</b>	<b>0</b>	<b>2</b>	<b>15</b>	<b>10</b>	<b>95</b>	<b>30</b>	<b>6</b>	<b>150</b>

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure C**

Semester : 6														
Quantum Technologies														
Specialisation Core Courses														
P6787	701230626	Introduction to Quantum Communication	PC		3	0	0	0	0	0	30	45	3	75
<b>Total</b>					<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>45</b>	<b>3</b>	<b>75</b>

**Optional 'Minor' Specialisation**

Semester	Continuous Assessment	End Semester Examination	Total Credits	Total Marks
<b>Artificial Intelligence and Machine Learning</b>				
Semester 3	0	4	4	100
Semester 4	0	4	4	100
Semester 5	0	4	4	100
Semester 6	3	3	6	150
<b>Total</b>	<b>3</b>	<b>15</b>	<b>18</b>	<b>450</b>
<b>Cyber Security</b>				
Semester 3	0	4	4	100
Semester 4	0	4	4	100
Semester 5	0	4	4	100
Semester 6	3	3	6	150
<b>Total</b>	<b>3</b>	<b>15</b>	<b>18</b>	<b>450</b>
<b>Quantum Technologies</b>				
Semester 3	0	3	3	75
Semester 4	0	6	6	150

---

**Symbiosis Institute of Technology, Pune**  
**Bachelor of Technology (Electronics and Telecommunication Engineering)**  
**Programme Structure 2026-30**  
**Annexure C**

Semester 5	0	6	6	<b>150</b>
Semester 6	0	3	3	<b>75</b>
<b>Total</b>	<b>0</b>	<b>18</b>	<b>18</b>	<b>450</b>