

**SYMBIOSIS INSTITUTE OF TECHNOLOGY**  
**MASTER OF TECHNOLOGY**  
**(ELECTRONICS AND TELECOMMUNICATION)**  
**PROGRAM STRUCTURE 2014-16**

1. **OBJECTIVES**
  - To generate competent manpower in the emerging areas of Electronics and Telecommunication Technology.
  - To inculcate among the students an aptitude for engineering and research for the furthering of knowledge in the chosen field.
  
2. **DURATION** Two Years Full Time
  
3. **INTAKE** 18 Students
  
4. **RESERVATION**
  - I. Within the sanctioned intake:
    - a) Scheduled Castes-15%
    - b) Scheduled Tribes-7.5%
    - c) Differently abled-3%
  
  - II. Over and above the sanctioned intake:
    - a) Kashmiri Migrants - 2 Seats
    - b) International Students – 15%
  
5. **ELIGIBILITY** At least 50% marks in B. Tech./B.E in Electrical, Electronics, Communication Engineering, Electronics and Telecommunication or Instrumentation (40% for SC/ST candidates)
  
6. **SELECTION PROCEDURE** GATE score or Entrance Test for non-GATE candidates
  
7. **MEDIUM OF** English

**INSTRUCTION**

- 8. PROGRAM PATTERN** Semester Pattern – 4 Semesters
- 9. COURSES & SPECIALIZATION** As per Annexure A
- 10. FEE**
- |                               |                     |
|-------------------------------|---------------------|
| <b>Indian Students</b>        |                     |
| Academic Fee p.a.             | Rs. 1,40,000        |
| Institute Deposit             | Rs. 10,000          |
| <b>Total Fee</b>              | <b>Rs. 1,50,000</b> |
| <b>International Students</b> |                     |
| Academic Fee p.a.             | Rs. 2,10,000        |
| Institute Deposit             | Rs. 10,000          |
| <b>Total Fee</b>              | <b>Rs. 2,20,000</b> |
- 11. ASSESSMENT** All internal courses will have 100% component as internal evaluation at the institute level. All external courses will have 40% internal component and 60% component as external [University] examination.
- 12. STANDARD OF PASSING** The assessment of students for each examination is done, based on relative performance. Maximum Grade Point (GP) is 4.000 corresponding to A+. For all courses, a student is required to pass both internal and external examination separately with a minimum Grade Point of 2.000 corresponding to Grade D. 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 2.000 out of maximum of 4.000 for the program.
- 13. AWARD OF DEGREE** **Master of Technology (Electronics and Telecommunication)M.Tech. (E&TC)** will be awarded at the end of semester IV examination by taking into consideration the performance of all semester examinations after obtaining minimum 2.00 CGPA out of 4.000.

## Annexure A

## Semester I

Temporary Course Code	Course Code	Course Title	Nature of Course	Teaching Scheme			Examination Scheme Marks			Total Credit	Total Marks	
				L	T	Lab	Practical		CA			ESE
							Int	Ext				
T7086	070143101	Advanced Digital Signal Processing	C	4	-	-	-	-	80	120	4	200
T7100	070143102	Mechatronics	C	4	-	-	-	-	80	120	4	200
T7595	070143103	Random Variable and Stochastic Processes	ES	3	2	-	-	-	80	120	4	200
T7105	070143104	Non Linear Systems	C	4	-	-	-	-	80	120	4	200
T7088	070143105	Advanced Engineering Electromagnetics and Radiation Systems	C	4	-	-	-	-	80	120	4	200
T7674	070143106	Cyber Security	GP	2	-	-	-	-	100	-	2	100
T7087	070143107	Advanced Digital Signal Processing Lab	C	-	-	2	20	30	-	-	1	50
T7101	070143108	Mechatronics Lab	C	-	-	2	20	30	-	-	1	50
T7106	070143109	Non Linear Systems Lab	C	-	-	2	20	30	-	-	1	50
			<b>Total</b>	<b>21</b>	<b>2</b>	<b>6</b>	<b>60</b>	<b>90</b>	<b>500</b>	<b>600</b>	<b>25</b>	<b>1250</b>

## Semester II

Temporary Course Code	Course Code	Course Title	Nature of Course	Teaching Scheme			Examination Scheme Marks				Total Credit	Total Marks
				L	T	Lab	Practical		CA	ESE		
							Int	Ext				
T7026	070143201	Research Methodology in Engineering	C	2	2	-	-	-	60	90	3	150
T7114	070143202	Wireless Communication and Mobile Computing	C	4	-	-	-	-	80	120	4	200
T7108	070143203	Sensor Networks	C	4	-	-	-	-	80	120	4	200
T7090	070143204	Alternate Energy	C	4	-	-	-	-	80	120	4	200
T7109	070143205	Radar and Remote Sensing	C	4	-	-	-	-	80	120	4	200
T7093	070143206	Digital Image Processing	C	4	-	-	-	-	80	120	4	200
T7094	070143207	Digital Image Processing Lab	C	-	-	2	20	30	-	-	1	50
T7113	070143208	Wireless Communication and Mobile Computing Lab	C	-	-	2	20	30	-	-	1	50
			<b>Total</b>	<b>22</b>	<b>2</b>	<b>4</b>	<b>40</b>	<b>60</b>	<b>460</b>	<b>690</b>	<b>25</b>	<b>1250</b>
T4005	070143209	*Integrated Disaster Management	ID	-	-	-	-	-	-	-	-	Letter Grade

## Semester III

Temporary Course Code	Course Code	Course Title	Nature of Course	Teaching Scheme			Examination Scheme Marks			Total Credit	Total Marks
				L	T	Lab	TW	CA	ESE		
T7809	070143301	M.Tech Project	PD	-	-	-	-	270	180	9	450
T7675	070143302	Review of Literature	PD	-	-	-	-	240	160	8	400
<b>Elective-I (Choose any one from 303 to 308)</b>											
T7111	070143303	Telemetry and Transport Industry	C	4	-	-	-	80	120	4	200
T7104	070143304	Neural Networks	C	4	-	-	-	80	120	4	200
T7091	070143305	Biomedical Sensors	C	4	-	-	-	80	120	4	200
T7096	070143306	Embedded and Real Time System	C	4	-	-	-	80	120	4	200
T7085	070143307	Adaptive Signal Processing	C	4	-	-	-	80	120	4	200
T7103	070143308	Mobile ad hoc Networks	C	4	-	-	-	80	120	4	200
<b>Elective-II (Choose any one from 309 to 313)</b>											
T7098	070143309	Lasers and Optical Electronics	C	4	-	-	-	80	120	4	200
T7089	070143310	Advanced FPGA Design	C	4	-	-	-	80	120	4	200
T7097	070143311	Embedded Automotive System	C	4	-	-	-	80	120	4	200
T7110	070143312	System on Chip	C	4	-	-	-	80	120	4	200
T7112	070143313	VLSI Digital Signal Processing System	C	4	-	-	-	80	120	4	200
			<b>Total</b>	<b>8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>670</b>	<b>580</b>	<b>25</b>	<b>1250</b>

## Semester IV

Temporary Course Code	Course Code	Course Title	Nature of Course	Teaching Scheme			Examination Scheme Marks			Total Credit	Total Marks
				L	T	Lab	TW	CA	ESE		
T7851	070143401	Thesis	PD	-	-	-	-	750	500	25	1250
			<b>Total</b>	-	-	-	-	<b>750</b>	<b>500</b>	<b>25</b>	<b>1250</b>

## Summary

Semester	Internal Credits	External Credits	Total Credits	Total Marks
Semester I	02	23	25	1250
Semester II	-	25	25	1250
Semester III	-	25	25	1250
Semester IV	-	25	25	1250
<b>Total</b>	<b>02</b>	<b>98</b>	<b>100</b>	<b>5000</b>

\*Integrated Disaster Management is mandatory for the award of degree.

**C – Core Course**

**ID – Inter Disciplinary Course**

**ES – Engineering Science Course**

**PD – Professional Development Course**

**GP – General Proficiency Course**

**L – Lecture T– Tutorial**

**TW – Term Work (Practical)**

**HA – Home Assignment**

**ESE – End Semester Examination**

**CA – Continuous Assessment**