



Symbiosis Institute of Technology, Pune
Master of Technology (Computer Science and Engineering)
Programme Structure 2020-22

1.	OBJECTIVE	To generate competent manpower in the emerging areas of Computer Science and Technology. To inculcate among the students an aptitude for engineering and research for the furthering of knowledge in the chosen field.			
2.	DURATION (IN MONTHS)	24 (Full Time)			
3.	INTAKE	24			
4.	RESERVATION	I. Within the sanctioned intake	a) SC (In Percentage)	b) ST (In Percentage)	c) Differently abled (In Percentage)
			15	7.5	3
		II. Over and above the sanctioned intake	a) Kashmiri Migrants (In Seats)	b) International Students (In Percentage)	
			2	15	
5.	ELIGIBILITY	Engineering graduate (B.E. /B. Tech) from any recognised University/ Institution of National Importance with a minimum of 50% marks or equivalent grade (45% Marks or equivalent grade for Scheduled Caste/ Scheduled Tribes) in the discipline of Computer Science & Engineering or Information Technology.			
6.	SELECTION PROCEDURE	GATE score or Entrance Test for non-GATE candidates			
7.	MEDIUM OF INSTRUCTION	English			
8.	PROGRAMME PATTERN	Semester			
9.	COURSE & SPECIALIZATION	As per Annexure A			
10.	FEE		Academic Fee p.a	Institute Deposit	Total
		Indian Students	185000	20000	205000
		International Students (USD equivalent to INR)	280000	20000	300000
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 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.					
13.	AWARD OF DEGREE/ DIPLOMA/ CERTIFICATE	Master of Technology (Computer Sciences and Engineering) will be awarded at the end of semester IV examination by taking into consideration the performance of all semester examinations after obtaining minimum 4.00 CGPA out of 10 CGPA.					
14.	CLASSIFICATION OF CREDITS						
Semester	Generic Core	Generic Elective	Specialization Core	Specialization Elective	Open Elective	Audit	Total
1	20	4	0	0	0	0	24
2	24	4	0	0	0	1*	28
3	14	0	0	0	0	2*	14
4	14	0	0	0	0	0	14
Total	72	8	0	0	0	0	80
* Satisfactory completion of the non letter grade courses 'Integrated Disaster Management', 'Research Publication' 'Certificate in COVID-19 Care for the Community' is mandatory for award of degree.							
The revised programme structure supersedes the previously approved programme structure dated 07/10/2021 for the programme.							

This Programme Structure is aligned with the norms laid down by the University and is approved by the Academic Council. Hereafter changes (if any) which conform to the policy on "Curriculum Development and Review" would be permissible, subject to revision of the Programme Structure, following the specified processes.

Head - Academics

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Annexure A

Catalog Course Code	Course Code	Course Title	Nature	Teaching Scheme			Practical		Examination Scheme Marks		Total Credits	Total
				L	T	Lab	CA	ESE	CA	ESE		
Semester : 1												
Generic Core Courses												
T7059	0701440101	Applied Algorithms	PC	4	0	0	0	0	120	80	4	200
T7060	0701440102	Applied Algorithms Lab	PC	0	0	2	30	20	0	0	1	50
T7070	0701440103	Network Computing	PC	3	0	0	0	0	90	60	3	150
T7071	0701440104	Network Computing Lab	PC	0	0	2	30	20	0	0	1	50
T7139	0701440105	Software Testing and Quality Assurance	PC	3	0	0	0	0	150	0	3	150
T7080	0701440106	Software Testing and Quality Assurance Lab	PC	0	0	2	30	20	0	0	1	50
T7802	0701440107	Seminar	PIS	0	0	4	60	40	0	0	2	100
T7674	0701440108	Cyber Security	PC	2	0	0	0	0	100	0	2	100
TE7113	0701440109	Communication Skill Lab	HS	0	0	2	30	20	0	0	1	50
TE7109	0701440110	Research Methodology in engineering	PC	2	0	0	0	0	60	40	2	100
Total				14	0	12	180	120	520	180	20	1000
Generic Elective Courses Group												
T7520	0701440111	Big Data	PE	3	0	0	0	0	90	60	3	150
T7529	0701440112	Machine Learning	PE	3	0	0	0	0	90	60	3	150
T3568	0701440113	Natural Language Processing	PE	3	0	0	0	0	90	60	3	150
Total Required Credits							0	0	90	60	3	150
Generic Elective Courses Group												
TE7098	0701440114	Big Data Lab	PE	0	0	2	30	20	0	0	1	50
TE7105	0701440115	Machine Learning Lab	PE	0	0	2	30	20	0	0	1	50
TE7106	0701440116	Natural Language Processing Lab	PE	0	0	2	30	20	0	0	1	50
Total Required Credits							30	20	0	0	1	50
Semester : 2												
Generic Core Courses												
T7057	0701440201	Advanced Databases	PC	3	0	0	0	0	90	60	3	150
T7058	0701440202	Advanced Databases Lab	PC	0	0	2	30	20	0	0	1	50
T7068	0701440203	Intelligent Systems	PC	3	0	0	0	0	90	60	3	150
T7069	0701440204	Intelligent Systems Lab	PC	0	0	2	30	20	0	0	1	50
TE7101	0701440205	Internet of Things	PC	3	0	0	0	0	90	60	3	150
T7528	0701440206	Internet of Things Lab	PC	0	0	2	30	20	0	0	1	50
F7020	0701440207	Deep Learning	PC	3	0	0	0	0	150	0	3	150



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				L	T	Lab	CA	ESE	CA	ESE		
TE7100	0701440208	Statistical Programming	PC	2	0	0	0	0	60	40	2	100
TE7007	0701440209	Skill Development Lab	PC	0	0	8	200	0	0	0	4	200
TE7124	0701440210	Technical writing Lab	PC	0	0	2	30	20	0	0	1	50
T7802	0701440211	Seminar	PIS	0	0	4	60	40	0	0	2	100
T4005	0701440212	Integrated Disaster Management *		0	0	0	0	0	0	0	Non Letter Grade	0
Total				14	0	20	380	120	480	220	24	1200
Generic Elective Courses Group												
T3309	0701440213	Big Data Analytics	PE	3	0	0	0	0	90	60	3	150
TE7097	0701440214	Neural Network	PE	3	0	0	0	0	90	60	3	150
TE7110	0701440215	Distributed Systems and Cloud Computing	PE	3	0	0	0	0	90	60	3	150
Total Required Credits							0	0	90	60	3	150
Generic Elective Courses Group												
TE7107	0701440216	Big Data Analytics Lab	PE	0	0	2	30	20	0	0	1	50
TE7112	0701440217	Neural Networks Lab	PE	0	0	2	30	20	0	0	1	50
TE7111	0701440218	Distributed Systems and Cloud Computing Lab	PE	0	0	2	30	20	0	0	1	50
Total Required Credits							30	20	0	0	1	50
Semester : 3												
Generic Core Courses												
TE7710	0701440301	Dissertation Phase 1	PIS	10	0	0	0	0	300	200	10	500
F7015	0701440302	Advanced Cyber Security	PC	4	0	0	0	0	200	0	4	200
T0100	0701440303	Research Publication *		0	0	0	0	0	0	0	Non Letter Grade	0
TH4272	0701440304	Certificate in COVID-19 Care for the Community *		0	0	0	0	0	0	0	Non Letter Grade	0
Total				14	0	0	0	0	500	200	14	700
Semester : 4												
Generic Core Courses												
T7714	0701440401	Dissertation Phase 2	PIS	0	0	28	420	280	0	0	14	700
Total				0	0	28	420	280	0	0	14	700



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Semester	Internal Credits	External Credits	Total Credits	Total Marks
Semester 1	5	19	24	1200
Semester 2	7	21	28	1400
Semester 3	4	10	14	700
Semester 4	0	14	14	700
Total	16	64	80	4000