



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)
Department of Computer Engineering

M.Tech. (Computer Engineering) Scheme (Semester I-IV)



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)
Department of Computer Engineering

CURRICULUM for M. Tech PROGRAM: 2020 ITERATION (Computer Engineering)

Nomenclature of the Courses

BSC	Basic Science Course
SBC	Skilled Based Course
ABL-SATVA	Self- Accomplishment Through Various Activities
ABL-SEVA	Social Empowerment Through Various Activities
PC	Program Core
PE	Program Elective
MLC	Mandatory Learning Course
OE	Open Elective
HSSME	Humanities, Social Science, Management Elective

Abbreviations

L	Lecture Hour	O	Other Work (Self Study)
T	Tutorial Hour	E	Total Engagement in Hours
P	Laboratory Hour	C	Credit Assigned

Sem I									
No	Type	Course Code	Course	L	T	P	O	E	C
1	PC	CS501	Advanced Algorithms and Complexity	3	0	0	5	8	3
2	PC	CS502	Information and System Security	3	0	0	5	8	3
3	PC	CS503	(A) Database Engineering / (B) Soft Computing	2	0	2	4	8	3
4	PE	CS5X1	Program Elective-I	2	0	2	3	7	3
5	SBC	CS504	Advance Programming Lab	0	0	4	3	7	2
6	SBC	CS505	Big Data Lab	1	0	2	4	7	2
7	HSSME	HSSXX	HSS-I	2	0	0	3	5	2
8	SBC	AS501	Writing Skills	1	0	2	2	5	2
			TOTAL	14	0	12	29	55	20



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India

(Autonomous Institute Affiliated to University of Mumbai)

Department of Computer Engineering

Sem II									
No	Type	Course Code	Course	L	T	P	O	E	C
1	PC	CS506	Advanced Network and Communication System	3	0	0	5	8	3
2	PC	CS507	Distributed Computing Systems	3	0	0	5	8	3
3	PE	CS5X2	Program Elective-II	2	0	2	3	7	3
4	PE	CS5X3	Program Elective-III	2	0	2	3	7	3
5	SBC	CS508	High Performance Computing Lab	1	0	4	3	8	3
6	SBC	CS509	Enterprise Technology Lab	0	0	2	3	5	1
7	HSSME	HSSXX	HSS-II	2	0	0	3	5	2
8	SBC	AS502	Communication Skills	1	0	2	2	5	2
			TOTAL	14	0	12	27	53	20

SUMMER TERM					
No	Type	Course Code	Course	E	C
1	MLC	AS601	Constitution of India	50	NC
2	SBC	CS601	Seminar (Based on Literature Survey)	50	2
3	SBC	AS603	Selling and Negotiation Skills	100	2
			TOTAL	200	4

Sem III									
No	Type	Course Code	Course	L	T	P	O	E	C
1	OE*	OEXXX	Open Elective-I	X	0	X	5	08	3
3	HSSME*	HSEXX	HSS-III	2	0	0	3	05	2
4	SBC	CS602/ CS603	Dissertation-I / Research Internship Stage I	0	0	10	5	15	12
			TOTAL	13	0	14	30	57	17

Sem IV									
No	Type	Course Code	Course	L	T	P	O	E	C
1	OE*	OEXXX	Open Elective-II	X	0	X	5	08	3
2	SBC	CS604/ CS605	Dissertation-II/ Research Internship Stage II	0	0	0	-	45	12
			TOTAL					55	15

*May be studied ONLINE mode or through MOOC's

X: Distribution of Credits should be subject-specific.



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)
Department of Computer Engineering

PROGRAM ELECTIVES

Sr. No.	Vertical/Thread	Program Elective I	Program Elective II	Program Elective III
1	Artificial Intelligence	Artificial & Computational Intelligence	Machine Learning	Deep Learning
	Course Code	CS511	CS512	CS513
2	Data Science	Fundamentals of Data Science	Machine Intelligence	Explainable Artificial Intelligence
	Course Code	CS521	CS522	CS523
3	Cyber Security and Digital Forensics	Cyber Security Technologies	Digital Forensics and Incident Response	Mobile Device and Cloud Forensics
	Course Code	CS531	CS532	CS533
4	Open Basket	1) Any course approved BoS & Principal 2) Cloud Computing		

OPEN ELECTIVES (I & II)-May be studied in ONLINE mode or from MOOC's

Sr. No	Course Title
1	Project Management
2	Finance for Engineers
3	Law for Engineers
4	Information and Knowledge management
5	User Experience Design
6	Research Methodology

HSSME: HUMANITIES & SOCIAL SCIENCE ELECTIVES

HSSE-I							
Sr. No.	Course Type	Course Title	Scheme				Sp note
			Lectures	Practical	Total	Credits	
1	HSS-I	Psychology-I				2	
2		Philosophy-I				2	
3		Foreign Language-I				2	German, French, Spanish, Japanese, Mandarin
4		Indian Language-I				2	Sanskrit, Kannad, Tamil, Telgu, Malyalum etc
5		Economics-I				2	
6		Rise & Fall of Societies				2	
7		Finance-I				2	



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India

(Autonomous Institute Affiliated to University of Mumbai)

Department of Computer Engineering

8		Political Science-I				2	
9		Any other course on MOOC approved by the HoD & Dean Academics					
HSSE-II							
1	HSS-II	Psychology-II				2	
2		Philosophy-II				2	
3		Foreign Language-II				2	German, French, Spanish, Japanese, Mandarin
4		Indian Language-II				2	Sanskrit, Kannad, Tamil, Telgu, Malyalum etc
5		Law for Engineers				2	
6		Economics-II				2	
7		Finance-II				2	
8		The Modern World-I (1760-1910)				2	
9		Political Science-II					
10		Any other course on MOOC approved by the HoD & Dean Academics					

HSSE-III							
1	HSS-III	Psychology-III				2	
2		Philosophy-III				2	
3		Foreign Language-III				2	German, French, Spanish, Japanese, Mandarin
4		Indian Language-III				2	Sanskrit, Kannad, Tamil, Telgu, Malyalam etc
5		IPR & Patent Writing				2	
6		Economics-III				2	
7		Finance-III				2	
8		The Mod. World-II (1910 Onwards)				2	
9		Any other course on MOOC approved by the HoD & Dean Academics					