

M. Tech. (Information Technology)
CURRICULUM First Year (With effect from academic year 2018-19)
(L-T-P) indicates L-Lecture, T-Tutorial and P-Practical

M. Tech. Semester-I					
Course Number	Subject	Scheme of Studies per Week			Credits
		L	T	P	
PCC-IT-501	Advanced Computer Algorithms	3	0	2	4
PCC-IT-502	Advanced Computer Networks	3	0	2	4
PCC-IT-503	Advanced Operating Systems	3	0	2	4
PEC-IT-5**	Program Elective I	3	0	2	4
PEC-IT-5**	Program Elective II	3	0	2	4
MCC-590	Research Methodology and IPR	2	0	0	2
MAC-591	English for Research Paper Writing	2	0	0	0
Total Credits:					22

M. Tech. Semester-II					
Course Number	Subject	Scheme of Studies per Week			Credits
		L	T	P	
PCC-IT-516	Object Oriented Software Engineering	3	0	2	4
PCC-IT-517	Advanced Database Management System	3	0	2	4
PEC-IT-5**	Program Elective III	3	0	2	4
PEC-IT-5**	Program Elective IV	3	0	2	4
OEC-8**	Open Elective	3	0	0	3
PRJ-IT-532	Mini Project with Seminar	0	0	2	1
AUD-9**	Audit Course	2	0	0	0
Total Credits:					20

* Students should be encouraged to go to Industrial Training/Internship for at least 2-3 months during semester break. All Laboratory courses will have the examination at the end of the respective semester by the expert(s) in the relevant subject.

CURRICULUM Second Year (With effect from academic year 2018-19)

M. Tech. Semester-III*					
Course Number	Subject	Scheme of Studies per Week			Credits
		L	T	P	
DIS-IT-601	Dissertation-I / Industrial Project	0	0	28	14
Total Credits:					14

*Students going for Industrial Project/Thesis will complete these courses through MOOCs.

M. Tech. Semester-IV					
Course Number	Subject	Scheme of Studies per Week			Credits
		L	T	P	
DIS-IT-602	Dissertation-II / Industrial Project	0	0	28	14
Total Credits:					14

The program offers several elective courses, focusing on different aspects of Computer Network and Information Security. A student can choose to do any course from given program elective set.

List of courses for Elective-I and Elective-II

PEC-IT-504	Computer Architecture and Parallel Processing
PEC-IT-505	Mobile and Wireless Networks
PEC-IT-506	Big Data Analytics
PEC-IT-507	Data Warehousing and Data Mining
PEC-IT-508	Artificial Neural Network
PEC-IT-509	Cluster and Grid computing
PEC-IT-510	Pattern Recognition
PEC-IT-511	Human and Computer Interaction
PEC-IT-512	Image Processing
PEC-IT-513	Machine Learning
PEC-IT-514	Web Search and Information Retrieval
PEC-IT-515	Software Defined Networking

List of courses for Elective-III and Elective-IV

PEC-IT-518	Advanced Data Structures
PEC-IT-519	Wireless Sensor Network
PEC-IT-520	Data Science
PEC-IT-521	Knowledge Based Systems
PEC-IT-522	Distributed Systems
PEC-IT-523	IT services for Security
PEC-IT-524	Natural Language Processing
PEC-IT-525	Internet of Things
PEC-IT-526	Information Theory and Coding
PEC-IT-527	Security Assessment and Risk Analysis
PEC-IT-528	Secure Coding
PEC-IT-529	Digital Forensic
PEC-IT-530	Database Security and Access Control
PEC-IT-531	Deep Learning

List of courses for Open Elective

OEC-801	Business Analytics
OEC-802	Industrial Safety
OEC-803	Operations Research
OEC-804	Cost Management of Engineering Projects
OEC-805	Composite Materials
OEC-806	Waste to Energy

List of Audit Courses

AUD-901	Project Management
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AUD-902	Disaster Management
AUD-903	Sanskrit for Technical Knowledge
AUD-904	Value Education
AUD-905	Constitution of India
AUD-906	Pedagogy Studies
AUD-907	Stress Management by Yoga
AUD-908	Personality Development through Life Enlightenment Skills