

ANNEXURE VI								
Jaypee University of IT Waknaghat								
Curricula for 2 year MTech Computer Science Engineering (Information Security)								
Batch 2018-20 onwards Mtech CSE(IS): I Semester (M1)								
SN	Sub Code	Subject	C/ E	Contact hours				Cr
				L	T	P	Hr	
1	10M11CI111	Advanced Data Structures	C	3	0	0	3	3
2	10M11CI112	Advanced Computer Networks	C	3	0	0	3	3
3	18M11CI113	Advanced Database Systems Security	C	3	0	0	3	3
4	18M11CI114	Cryptography and Information System Security	C	3	0	0	3	3
5	CS	DE-I	E	3	0	0	3	3
6	CS	DE-II	E	3	0	0	3	3
7	CS	DE-III	E	3	0	0	3	3
8	18M17CI171	Software Systems Security Lab - I	C	0	0	4	4	2
		TOTAL					25	23
Jaypee University of IT Waknaghat								
Curricula for 2 year MTech Computer Science Engineering (Information Security)								
Batch 2018-20 onwards Mtech CSE(IS): II Semester (M2)								
SN	Sub Code	Subject	C/ E	Contact hours				Cr
				L	T	P	Hr	
1	10M11CI211	Advanced Algorithms	C	3	0	0	3	3
2	10M11CI212	Advanced Operating Systems	C	3	0	0	3	3
3	10M11CI213	Advanced Software Engineering	C	3	0	0	3	3
4	18M11CI214	Digital Forensics	C	3	0	0	3	3
5	CS	DE-IV	C	3	0	0	3	3
6	CS	DE-V		3	0	0	3	3
7	CS	DE-VI		3	0	0	3	3
8	18M17CI271	Software Systems Security Lab - II	C	4	0	2	6	2
		TOTAL					27	23
Jaypee University of IT Waknaghat								
Curricula for 2 year MTech Computer Science Engineering (Information Security)								
Batch 2018-20 onwards Mtech CSE(IS): III Semester (M3)								
SN	Sub Code	Subject	C/ E	Contact hours				Cr
				L	T	P	Hr	
1	18M19CI393	Seminar	C	0	0	4	4	2
2	18M19CI391	Project, Part -I	C	0	0	24	24	12
		TOTAL					28	14

Jaypee University of IT Wanknaghat								
Curricula for 2 year MTech Computer Science Engineering (Information Security)								
Batch 2018-20 onwards Mtech CSE(IS) : IV Semester (M4)								
SN	Sub Code	Subject	C/ E	Contact hours				Cr
				L	T	P	Hr	
1	18M19CI493	Project Seminar	C	0	0	4	4	2
2	18M19CI491	Project, Part -II	C	0	0	28	28	14
		TOTAL					32	16
List of Electives for DE-I, DE-II, DE-III, DE-IV, DE-V and DE-VI								
To be updated from time to time								
1	10M1WCI131	System and Network Security Techniques						
2	14M1WCI333	Natural Language Processing						
3	14M1WCI431	Parallel Programming Techniques						
4	11M1WCI432	Performance Evaluation of Networks						
5	13M1WCI331	Machine Learning						
6	15M1WCI331	Advanced Theory of Computation						
7	11M1WCI431	Advanced Web Mining						
8	15M1WCI431	Advanced AI						
9	15M1WCI432	Advanced Computational Techniques in Engineering						
10	18M1WCI114	Secure Enterprise Computing						
11	18M1WCI115	Secure Software Design						
12	18M1WCI116	Security Design & Architecture						
13	18M1WCI112	Security investigation						
14	18M1WCI111	Security Risk Analysis						
15	CS	Security Scripting						
16	CS	Algorithmic Graph Theory						
17	CS	Analysis of Algorithms						
18	CS	Cognitive Sciences						
19	CS	Computation Theory and Applications						
20	CS	Computer Vision						
21	CS	Control Systems Security						
22	18M1WCI113	Cyber Warfare & Cyber Crime						
23	CS	Embedded System Design						
24	CS	Fault Tolerant Computing						
25	CS	Grid Computing						
26	CS	Incident Response & Event Management						
27	CS	Information and Network Security						
28	CS	Intelligent Systems						
29	CS	Knowledge Discovery						

30	CS	Machine Learning
31	CS	Mobile Computing
32	CS	Parallel Computing
33	CS	Pattern Recognition
34	CS	Penetration Testing
35	CS	Performance Evaluation of Computer Networks
36	CS	Quantum Algorithms
37	CS	Real Time Operating Systems
38	CS	Theory of Programming Languages
39	CS	Threat & Vulnerability Analysis
40	CS	VLSI Algorithms
41	CS	Advanced Wireless and Mobile Communications
42	CS	Digital CMOS design
43	CS	Digital Signal Processors and Applications
44	CS	Information and Coding Theory
45	CS	VLSI Circuit and System Design
46	CS	VLSI Modelling and Simulation
47	CS	VLSI Testing
48	18M1WCI332	Deep Learning

Summary	Cr
Sem1	23
Sem2	23
Sem3	14
Sem4	16
Total	76