

**BIRLA IN+A1:30STITUTE OF TECHNOLOGY- MESRA, RANCHI**  
**REVISED COURSE STRUCTURE - To be effective from academic session 2021-22**  
**Based on CBCS & OBE Model**  
**Recommended scheme of study for M.Tech Information Security**

SEMESTER / Session of Study (Recommended)	Course Level	Category of Course	Course Code	Courses	Mode of delivery & credits <i>L-Lecture; T-Tutorial;P-Practicals</i>			Total Credits <i>C- Credits</i>	
					L (Periods/ week)	T (Periods/ week)	P (Periods/w week)		
<b>THEORY</b>									
FIRST / Monsoon	Fifth	Program Core (PC)	CS501	Mathema tical Foundati ons of Compute r Science	3	0	0	3	
			CS502	Advance d Data Structure s	3	0	0	3	
			IT502	Fundame ntals of Informati on Security	3	0	0	3	
				<b>PE I</b>	3	0	0	3	
			<b>PE III</b>	3	0	0	3		
		Program Elective (PE)							
	<b>LABORATORIES</b>								
		Fifth	Program Core (PC)	CS503	Advance d Data Structure s Lab	0	0	4	2
				**	PE LAB 1	0	0	4	2
	<b>TOTAL</b>								<b>19</b>
SECOND/ Spring	Fifth	Program Core (PC)	CS509	Advance d Compute r	3	0	0	3	

				Algorith m					
			IT514	Cryptogr aphy	3	0	0	3	
			IT515	Digital Forensics	3	0	0	3	
			CS602	Data Compres sion	3	0	0	3	
				<b>PE II</b>	3	0	0	3	
		<b>LABORATORIES</b>							
	<b>Fifth</b>	<b>Program me Core (PC)</b>	CS510	Advance d Compute r Algorith m Lab	0	0	4	2	
			**	PE LAB 2	0	0	4	2	
		<b>TOTAL</b>							<b>19</b>
<b>THIRD / Monsoon</b>	<b>Sixth</b>	<b>Program me Core (PC)</b>	<b>CS600</b>	<b>Thesis (Part I)</b>				<b>8</b>	
		<b>Open Elective (OE)</b>		<b>OE I / MOOC</b>				<b>3</b>	
				<b>OE II / MOOC</b>				<b>3</b>	
		<b>TOTAL</b>							<b>14</b>
<b>FOURTH/ Spring</b>	<b>Sixth</b>	<b>Program me Core (PC)</b>	<b>CS650</b>	<b>Thesis (Part II)</b>				<b>16</b>	
		<b>TOTAL</b>							<b>16</b>
<b>GRAND TOTAL FOR M.TECH PROGRAMME (38 + 30)</b>								<b>68</b>	

SEMESTER / Session of Study (Recomen ded)	Cour se Level		Cour se Code	Courses	Mode of delivery & credits			Total
					<i>L-Lecture; T-Tutorial;P-Practicals</i>			Credi ts
								C- Credi ts
					L <i>(Periods/w eek)</i>	T <i>(Periods/w eek)</i>	P <i>(Periods/w eek)</i>	C
FIRST /	5		CS50	Machine	3	0	0	3



Open Elective List for M. Tech Program

SEMESTER / Session of Study		Category of Course	Course Code	Subjects	Mode of delivery & credits			Total
					<i>L-Lecture; T-Tutorial;P-Practicals</i>			Credits
(Recommended)					L <i>(Periods/week)</i>	T <i>(Periods/week)</i>	P <i>(Periods/week)</i>	C <i>Credits</i>
FIRST /		OE 1	CS514	Software Metrics	3	0	0	3
Monsoon			CS522	Pattern Recognition and Application	3	0	0	3
			IT518	Internet of Things	3	0	0	3
			IT570	Basics of Python Programming	0	1	4	3
			IT522	Cyber Security and Digital Forensics	3	0	0	3
SECOND/	5	OE 2	IT523	Biometric Security	3	0	0	3
Spring	5		IT504	Applied Cryptography	3	0	0	3
	5		IT524	Image Processing Techniques	3	0	0	3
	5		CS524	Soft Computing	3	0	0	3
			IT571	Introduction to R Programming	0	1	4	3
	5		CS512	Artificial Intelligence	3	0	0	3

	5		IT51 6	Data Mining and Data Analysis	3	0	0	3
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