

**Course/ Credits Distribution of ME CSE (Information Security)****Program Core**

<b>Course Code</b>	<b>Course Name</b>	<b>L T P</b>	<b>Credits</b>
CSN550	Program Core-I : <b>Foundation of Information Security</b>	3-0-0	3
CSN501	Program Core-II : <b>Advanced Algorithm Design and Analysis</b>	3-0-0	3
CSN571	Program Core-III : <b>Network Security</b>	3-0-0	3
CSN572	Program Core IV: <b>Information Security Audit and Security Management</b>	3-0-0	3
<b>Total</b>			<b>12</b>

**Open core**

<b>Course Code</b>	<b>Course Name</b>	<b>L T P</b>	<b>Credits</b>
CSN551	Program Mathematics/ Mathematics (Open Core I): <b>Computational Theory and Cryptography</b>	3-0-0	3
CSN520	Open core-II : <b>Design of Experiments and Research Methodology</b>	3-0-0	3
<b>Total</b>			<b>06</b>

**Program Elective-I (Any One)**

<b>Course Code</b>	<b>Course Name</b>	<b>L T P</b>	<b>Credits</b>
CSN509	Advanced Computer Architecture	3-0-0	3
CSN502	Advanced Computer Networks	3-0-0	3
CSN506	Advanced Topics in Database Systems	3-0-0	3
CSN553	Digital Image Processing	3-0-0	3
CSN522	Special Topics in Soft Computing	3-0-0	3
<b>Total</b>			<b>03</b>

**Program Elective-II (Any One)**

Course Code	Course Name	L T P	Credits
CSN554	System Security	3-0-0	3
CSN555	E-Privacy: Privacy and trust in the Electronic Society	3-0-0	3
CSN556	Cyber Crime and Related IT Laws	3-0-0	3
CSN557	Recent Trends in Information Technology	3-0-0	3
CSN558	Human Aspects of Information Security	3-0-0	3
CSN513	Business intelligence	3-0-0	3
CSN559	Security Engineering	3-0-0	3
CSN560	Information Warfare	3-0-0	3
CSN561	Intrusion Detection and Prevention Systems	3-0-0	3
CSN562	Ethical Hacking and Incident Handling	3-0-0	3
<b>Total</b>			<b>03</b>

**Program Elective-III (Any One)**

Course Code	Course Name	L T P	Credits
CSN574	Internet Security	3-0-0	3
CSN575	Internetworking Architecture and Protocols	3-0-0	3
CSN576	Database Security and Privacy	3-0-0	3
CSN577	Critical Infrastructure Protection and Disaster Recovery	3-0-0	3
CSN578	Operating System and Web Application Security	3-0-0	3
CSN579	Computer Crime Investigation and Forensics	3-0-0	3
CSN580	Biometric Security	3-0-0	3
CSN581	Cloud Computing & Security	3-0-0	3
CSN582	Public Key Infrastructure and Trust Management	3-0-0	3
CSN583	Mobile and Wireless Network Security	3-0-0	3
CSN584	Data Science and Big Data Analytics	3-0-0	3
<b>Total</b>			<b>03</b>
<b>Program Elective Total</b>		<b>9-0-0</b>	<b>09</b>

**Open Elective**

Course Code	Course Name	L T P	Credits
CSN550	Foundations of Information Security	3-0-0	3
CSN556	Cyber Crime and Related IT Laws	3-0-0	3
CSN557	Recent Trends in Information Technology	3-0-0	3
CSN552	Special Topics in Soft Computing	3-0-0	3

### **Program Lab**

<b>Course Code</b>	<b>Course Name</b>	<b>L T P</b>	<b>Credits</b>
CSN552	Program Lab-I : <b>Information Security Lab-I</b>	0-0-3	2
CSN573	Program Lab-II : <b>Information Security Lab-II</b>	0-0-3	2
<b>Total</b>			<b>04</b>

### **Case Histories and industry Experiences**

<b>Course Code</b>	<b>Course Name</b>	<b>L T P</b>	<b>Credits</b>
CSN590	Case Histories and industry Experiences	0-0-2	1
<b>Total</b>			<b>01</b>

### **Seminar and Technical Writing**

<b>Course Code</b>	<b>Course Name</b>	<b>L T P</b>	<b>Credits</b>
CSN591	Seminar and Technical Writing	0-0-2	1
<b>Total</b>			<b>01</b>

### **Project/ Industry based Project**

<b>Course Code</b>	<b>Course Name</b>	<b>L T P</b>	<b>Credits</b>
CSN598	Project/ Industry based Project -I	0-0-24	12
CSN599	Project/ Industry-based Project -II	0-0-36	18
<b>Total</b>			<b>30</b>

CONSOLIDATED SCHEME-ME CSE(IS)												
Sem							Lecture Course	L	T	P	Weekly Contact	Credits
I	Program Core -I <b>Foundation of Information Security: CSN550</b> (LTP: 3 0 0)	Program Core-II <b>Advanced Algorithm Design and Analysis : CSN501</b> (LTP: 3 0 0)	Program Mathematics/Mathematics (Open core I) <b>Computational Theory and Cryptography : CSN551</b> (LTP: 3 0 0)	Program Elective I (see list of Electives) (LTP: 3 0 0)	Program Elective II (see list of Electives) (LTP: 3 0 0)	Program Lab I <b>Information Security Lab-I : CSN552</b> (LTP: 0 0 3)	5	15	0	3	18	17
II	(Open Core II) <b>Design of Experiments &amp; Research Methodology : CSN520</b> (LTP: 3 0 0)	Program Core-III <b>Network Security : CSN571</b> (LTP: 3 0 0)	Program Core-IV <b>Information Security Audit and Security Management: CSN572</b> (LTP: 3 0 0)	Program Elective III (see list of Electives) (LTP: 3 0 0)	Open Elective (LTP: 3 0 0)	Program Lab II <b>Information Security Lab-II: CSN573</b> (LTP: 0 0 3)	5	15	0	3	18	17
III	<b>Case History and Industry Experiences :CSN590</b> (LTP: 0 0 2)	<b>Seminar &amp; Technical Writing : CSN591</b> (LTP: 0 0 2)	<b>Project/ Industry Based Project -I :CSN598</b> (LTP: 0 0 24)	-	-	-	-	0	0	28	28	14
IV	<b>Project/ Industry Based Project-II: CSN599</b> (LTP: 0 0 36)	-	-	-	-	-	-	0	0	0	36	18

## PG (Information Security) – Curriculum Structure

### Semester I

Sr. No.	Course Code	Course Name	L	T	P	Credits
1	CSN550	Program Core-I : <b>Foundation of Information Security</b>	3	0	0	3
2	CSN501	Program Core-II : <b>Algorithm Design and Analysis</b>	3	0	0	3
3	CSN551	Program Mathematics/ Mathematics (Open Core I): <b>Computational Theory and Cryptography</b>	3	0	0	3
4		Program Elective-I	3	0	0	3
5		Program Elective-II	3	0	0	3
6	CSN552	Program Lab-I : <b>Information Security Lab-I</b>	0	0	3	2
<b>Total</b>						<b>17</b>

### Semester II

Sr. No.	Course Code	Course Name	L	T	P	Credits
1	CSN520	Open core-II : <b>Design of Experiments and Research Methodology</b>	3	0	0	3
2	CSN571	Program Core-III : <b>Network Security</b>	3	0	0	3
3	CSN572	Program Core IV: <b>Information Security Audit and Security Management</b>	3	0	0	3
4		Program Elective-III	3	0	0	3
5		Open Elective*	3	0	0	3
6	CSN573	Program Lab-II** : <b>Information Security Lab-II</b>	0	0	3	2
<b>Total</b>						<b>17</b>

\*It could be intra/inter departmental ME course

\*\*To include minimum of two industrial visits of half day duration to nearby industries.

### Semester III

Sr. No.	Course Code	Course Name	L	T	P	Credits
1	CSN590	Case Histories and industry Experiences <sup>#</sup>	0	0	2	1
2	CSN591	Seminar and Technical Writing	0	0	2	1
3	CSN598	Project/ Industry based Project -I	0	0	24	12
<b>Total</b>						<b>14</b>

<sup>#</sup>To include 4 to 5 invited lectures from industrial experts

### Semester IV

Sr. No.	Course Code	Course Name	L	T	P	Credits
1	CSN599	Project/ Industry-based Project -II	0	0	36	18
<b>Total</b>						<b>18</b>

### List of Electives

#### Program Elective –I (Any one)

Course Code	Course Name	L T P	Credits
CSN509	Advanced Computer Architecture	3-0-0	3
CSN502	Advanced Computer Networks	3-0-0	3
CSN506	Advanced Topics in Database Systems	3-0-0	3
CSN553	Digital Image Processing	3-0-0	3
CSN522	Special Topics in Soft Computing	3-0-0	3
<b>Total</b>			<b>03</b>

#### Program Elective –II (Any one)

Course Code	Course Name	L T P	Credits
CSN554	System Security	3-0-0	3
CSN555	E-Privacy: Privacy and trust in the Electronic Society	3-0-0	3
CSN556	Cyber Crime and Related IT Laws	3-0-0	3
CSN557	Recent Trends in Information Technology	3-0-0	3
CSN558	Human Aspects of Information Security	3-0-0	3
CSN513	Business intelligence	3-0-0	3
CSN559	Security Engineering	3-0-0	3
CSN560	Information Warfare	3-0-0	3
CSN561	Intrusion Detection and Prevention Systems	3-0-0	3
CSN562	Ethical Hacking and Incident	3-0-0	3

	Handling		
<b>Total</b>			<b>03</b>

**Program Elective –III (Any one)**

<b>Course Code</b>	<b>Course Name</b>	<b>L T P</b>	<b>Credits</b>
CSN574	Internet Security	3-0-0	3
CSN575	Internetworking Architecture and Protocols	3-0-0	3
CSN576	Database Security and Privacy	3-0-0	3
CSN577	Critical Infrastructure Protection and Disaster Recovery	3-0-0	3
CSN578	Operating System and Web Application Security	3-0-0	3
CSN579	Computer Crime Investigation and Forensics	3-0-0	3
CSN580	Biometric Security	3-0-0	3
CSN581	Cloud Computing & Security	3-0-0	3
CSN582	Public Key Infrastructure and Trust Management	3-0-0	3
CSN583	Mobile and Wireless Network Security	3-0-0	3
CSN584	Data Science and Big Data Analytics	3-0-0	3
<b>Total</b>			<b>03</b>
<b>Program Elective Total</b>		<b>9-0-0</b>	<b>09</b>