CENTRE FOR TRANSPORTATION SYSTEMS
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Program Code : **XXX M.Tech. (Transportation Systems Management)**
Department : **Centre for Transportation Systems**
Year : **I**
Model : **2**

Teaching Scheme					Contact Hours/Week			Exam Duration	
S.No.	**Subject Code**	**Course Title**	**Subject Area**	**Credits**	**L**	**T**	**P**	**Theory**	**Practical**
Semester-I (Autumn)									
1.	TSC-502	Transport Policy & Planning	PCC	3	2	1	0	3	0
2.	TSC-504	Data Analytics for Transportation Systems	PCC	3	2	0	2	3	0
3.	TSC-506	Traffic Flow Analysis and Management	PCC	3	2	1	0	3	0
4.	TSC-508	Sustainable Mobility and Health	PCC	3	2	1	0	3	0
5.	TSC-510	Public Transport Operations and Management	PCC	3	2	1	0	3	0
7.		Social Science Course	SSC	2	-	-	-	-	-
		Total		**17**					
Semester-II (Spring)									
1.		Program Elective-I	PEC	3	-	-	-	-	-
2.		Program Elective-II	PEC	3	-	-	-	-	-
3.		Program Elective-III	PEC	3	-	-	-	-	-
4.		Program Elective-IV	PEC	3	-	-	-	-	-
5.		Program Elective-V	PEC	3/4	-	-	-	-	-
6.		Science, Technology, and Advanced Research-tools	STAR	3	-	-	-	-	-
7.	TSC-700	Seminar	SEM	2	-	-	-	-	-
		Total		**20/21**					

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Program Code : **XXX M.Tech. (Transportation Systems Management)**
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Year : **II**
Model : **2**

Teaching Scheme					Contact Hours/Week			Exam Duration	
S.No.	**Subject Code**	**Course Title**	**Subject Area**	**Credits**	**L**	**T**	**P**	**Theory**	**Practical**
Semester-I (Autumn)									
1.	TSC-691	Internship Social Activity	ISA	3	-	-	-	-	-
2.	TSC-701A	Thesis Stage-I	THESIS	10	-	-	-	-	-
		Total		**13**					
Semester-II (Spring)									
1.	TSC-701B	Thesis Stage-II	THESIS	14	-	-	-	-	-
		Total		**14**					

Summary				
Semester	**1**	**2**	**3**	**4**
Semester-wise Total Credits	17	20/21	13	14
Total Credits	**64/65**			

M.Tech. (Transportation Systems Management)

Program Elective Courses

Teaching Scheme					Contact Hours/Week			Exam Duration	
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical
1.	TSL-502	Freight Transportation Planning and Management	PEC	3	2	1	0	3	0
2.	TSL-504	Management of Transportation Projects	PEC	3	2	1	0	3	0
3.	TSL-508	Design of Inclusive Urban Transport	PEC	3	2	1	0	3	0
4.	TSL-510	Ropeway Infrastructure Planning and Design	PEC	3	2	1	0	3	0
5.	TSL-511	Multimodal Transportation	PEC	3	2	1	0	3	0
6.	TSL-512	Inland Navigation and Water Transport	PEC	3	2	1	0	3	0
7.	TSL-514	Airport Planning and Design	PEC	3	2	1	0	3	0
8.	TSL-516	Transport Economics	PEC	3	2	1	0	3	0
9.	TSL-518	Transportation Planning and Management Studio	PEC	4	0	0	8	0	0
10.	TSL-519	Geographical Information System (GIS) Applications in Transportation Systems	PEC	3	2	0	2	3	0
11.	TSL-520	Advanced Data Analytics for Transportation Systems	PEC	3	2	1	0	3	0
12.	TSL-521	Planning and Management for Active Transport	PEC	3	2	1	0	3	0
13.	TSL-522	Optimization Techniques for Transportation Systems	PEC	3	2	1	0	3	0
14.	TSL-523	Intelligent Transportation System	PEC	3	2	1	0	3	0
15.	TSL-524	Transport Infrastructure Design	PEC	3	2	1	0	3	0
16.	TSL-525	Road Traffic Safety and Management	PEC	3	2	0	2	3	0
17.	TSL-526	Electric Mobility Planning & Design	PEC	3	2	1	0	3	0
18.	TSL-527	AI/ML for Transportation Systems	PEC	3	2	1	0	3	0

Note: Students should opt for PECs in such a way that they earn 03 credits from practical components in the entire programme.

M.Tech. (Transportation Systems Management)

Science, Technology, and Advanced Research-tools Basket

Teaching Scheme					Contact Hours/Week			Exam Duration	
S.No.	**Subject Code**	**Course Title**	**Subject Area**	**Credits**	**L**	**T**	**P**	**Theory**	**Practical**
1.	TST-501	Sustainable Transportation Systems	STAR	3	2	1	0	3	0