

Master of Technology in Telecommunication Technology and Management

Interdisciplinary Programme

The overall credits structure

Category	PC	PE	OE	Total
Credits	33	21	0	54

Programme core (PC)

ELL785	Computer Communication Networks	3-0-0	3
ELL711	Signal Theory	3-0-0	3
ELL712	Digital Communications	3-0-0	3
ELL818	Telecommunication Technologies	3-0-0	3
ELP718	Telecommunication Software Laboratory	0-1-4	3
ELP720	Telecommunication Networks Laboratory	0-1-4	3
ELP725	Wireless Communication Laboratory	0-1-4	3
JTD801	Major Project Part 1	0-0-12	6
JTD792/S			
MD792	Minor Project (Telecom. Technology/Management)	0-0-6	3
SML723	Telecommunications Systems Management	3-0-0	3
	Total PC	15-3-30	33

Program Electives (PE): Signal and Information Processing

ELL786	Multimedia Systems	3-0-0	3
ELL715	Digital Image Processing	3-0-0	3
ELL720	Digital Signal Processing	3-0-0	3
ELL792	Computer Graphics	3-0-0	3
CRL707	Human and Machine Speech Communication	3-0-0	3
ELL784	Introduction to Machine Learning	3-0-0	3
ELL889	Computer Vision	3-0-0	3
ELL824	Statistical Signal Processing	3-0-0	3

Program Electives (PE): Communication Systems

ELL720	Digital Signal Processing	3-0-0	3
ELL719	Detection and Estimation Theory	3-0-0	3
ELL718	Statistical Signal Processing	3-0-0	3
ELL710	Coding Theory	3-0-0	3
ELL714	Basic Information Theory	3-0-0	3
ELL724	Advanced Information Theory	3-0-0	3
ELL815	MIMO wireless Communications	3-0-0	3
ELL814	Wireless Optical Communications	3-0-0	3
ELL812	Wireless Communications	3-0-0	3
ELL816	Satellite Communications	3-0-0	3
ELL717	Optical Communication Systems	3-0-0	3

Program Electives (PE): Telecom Management

SML700	Fundamentals of Management of Technology	3-0-0	3
SML701	Strategic Technology Management	2-0-2	3
SML713	Information Systems Management	2-0-2	3
SML726	Telecom Systems Analysis, Planning and Design	3-0-0	3
SML728	International Telecommunication Management	3-0-0	3
SML760	Marketing Management	3-0-0	3
SML770	Managerial Accounting and Financial Management	3-0-0	3
SML815	Decision Support and Expert Systems	2-0-2	3
SML850	Management of Information Technology	3-0-0	3

General Electives/Suggested Streams

Program Electives (PE) : General

JTD802	Major Project Part 2	0-0-24	12
ELL821	Selected Topics in Communication Systems and Networking I	3-0-0	3
ELL822	Selected Topics in Communication Systems and Networking II	3-0-0	3
EEV821	Special Module in Communication Systems and Networking I	1-0-0	1
JTS800	Independent Study	3-0-0	3

Program Electives (PE): Telecom Analytics

ELL784	Intoroduction to Machine Learning	3-0-0	3
ELL788	Information Retrieval	3-0-0	3
ELL797	Neural Systems and Learning Machines	3-0-2	4
ELL882	Large-Scale Machine Learning	3-0-0	3
ELL886	Big Data Analytics	3-0-0	3
ELL887	Cloud Computing	3-0-0	3
ELL794	Internet Technology	3-0-0	3
ELL888	Advanced Machine Learning	3-0-0	3
ELL798	Agent Technology	3-0-0	3
ELL891	Swarm Intelligence	3-0-0	3
CSL771	Database Implementations	3-0-2	4

Program Electives (PE): Embedded Systems and Network Appliance Engineering

ELL787	Embedded Systems and Applications	3-0-0	3
ELP781	Digital Systems Lab	0-1-4	3
ELL790	Digital Hardware Design	3-0-0	3
ELL791	Testing and Fault Tolerance	3-0-0	3
ELL766	Appliance Systems	3-0-0	3
ELL898	Pervasive Computing	3-0-0	3
ELP721	Embedded Telecommunication Systems Laboratory	0-1-4	3
ELL887	Cloud computing	3-0-0	3
CSL719	Synthesis of Digital Systems	3-0-2	3
CSL740	Software Engineering	3-0-2	4

Program Electives (PE): Computer & Communication Networks

ELP782	Computer Networks Lab	0-1-4	3
ELL894	Network Performance Modelling and Analysis	3-0-0	3
ELL793	Protocol Engineering	3-0-0	3
ELL794	Internet Technologies	3-0-0	3
ELL895	Network Security	3-0-0	3
ELL896	Mobile Computing	3-0-0	3
ELL897	Network Management	3-0-0	3
ELL719	Telecommunication Switching and Transmission	3-0-0	3
ELL816	Satellite Communication	3-0-0	3
ELL817	Access networks	3-0-0	3
ELL820	Photonic Switching and Networking	3-0-0	3
ELP821	Advanced Telecommunication Networks Laboratory	3-0-0	3
ELP822	Network Software Laboratory	0-1-4	3
ELL898	Pervasive Computing	3-0-0	3
ELL887	Cloud Computing	3-0-0	3
ELL812	Wireless Communications	3-0-0	3
CSL724	Advanced Computer Networks	3-0-0	3
ELL721	Introduction to Telecommunication Systems (Audit only)	3-0-0	3

M Tech in Telecommunication Technology and Management

Sem.	Courses					lecture	Contact hrs/WEEK				
	(Number, abbreviated title , L-T-P, credits)					courses	L	T	P	Total	Credits
I	ELL711 Signal Theory (3-0-0) 3	ELL712 Digital communication (3-0-0) 3	ELL818 Telecom. Technologies (3-0-0) 3	ELP718 Telecom. Software Lab (0-1-4) 3	ELL785 Computer Comm. Networks (3-0-0) 3	4	12	1	4	17	15
II	ELP725 Wireless Comm. Lab (0-1-4) 3	ELP720 Telecom. Network Lab (0-1-4)3	SMD792/ JTD792 Min Proj (JTM) (0-0-6)3	SML723 Telecom Syst Mgmt (3-0-0) 3	PE 1 (3-0-0) 3	2	6	2	14	22	15
summer											
III	JTD801 Maj Proj Part 1 (JTM) (0-0-12) 6	PE 2 (3-0-0) 3	PE 3 (3-0-0) 3			2	6	0	12	18	12
IV Courses	PE 2 (3-0-0) 3	PE 3 (3-0-0) 3	PE 4(3-0-0) 3	PE 5 (3-0-0) 3		4	12	0	0	12	12
IV Project	JTD802 Maj Proj Part 2 (JTM) (0-0-24)12					0	0	0	24	24	12