

Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)
Semester wise Credit distribution structure for Four Year B.Tech Program
Programme: Electronics and Telecommunication

Semester		I	II	III	IV	V	VI	VII	VIII	Total Credits
Basic Science Course	BSC/ESC	08	08							16
Engineering Science Course		08	06							14
Programme Core Course (PCC)	Program Courses	--	02	11	10	13	12	5		53
Programme Elective Course (PEC)		--				4	7	5	6	22
Multidisciplinary Minor (MDM)	Multidisciplinary Courses	--		2	2	4	2	4		14
Open Elective(OE) Other than a particular program		--		3	2	2				7
Vocational and Skill Enhancement Course(VSEC)	Skill Courses	02	02		2		1			7
Ability Enhancement Course (AEC-01,AEC-02)	Humanities Social Science and Management(HSSM)		02		2					4
Entrepreneurship/Economics/Management Courses)		--		2						2
Indian Knowledge System(IKS)		02								2
Value Education Course(VEC)		--		2	1					3
Research Methodology		--						2		2
Comm. Engg. Project (CEP)/Field Project(FP)	Experiential Learning Courses	--		2						2
Project		--						04		4
Internship/OJT		--				2			12	14
Co-curricular(CC)	Liberal Learning Courses	02	02							4
Total Credits		22	22	22	21	23	22	20	18	170

Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)

Programme: Electronics and Telecommunication

B.Tech. I Semester

Sr. No.	Course Code	Course Category	BOS/ Dept	Course Name	Contact Hours				Marks				Total Marks	ESE Duration
									Theory		Practical			
					L	T	P	Credits	CE	ESE	CE	ESE		
1	24UET301T	BSC	ASH	Basic calculus & differential equations	3	1	0	4	40	60	--	--	100	3Hr
2	24UET301P	BSC	ASH	Engg. Chemistry	3	0	0	3	40	60	--	--	100	
3	24UET302T	BSC	ASH	Lab: Engg. Chemistry	0	0	2	1	--	--	25	25	50	3Hr
4	24UET302P	ESC	CT	Programming for Problem Solving	3	0	0	3	40	60	--	--	100	
5	24UET303T	ESC	CT	Lab: Programming for Problem Solving	0	0	2	1	--	--	25	25	50	3Hr
6	24UOE3XXT	ESC	EE	Basics of Electrical& Electronics Engg.	3	0	0	3	40	60	--	--	100	3Hr
7	24UBS306T	ESC	EE	Lab: Basics of Electrical& Electronics Engg.	0	0	2	1	--	--	25	25	50	2Hr
8	24UBS308T	IKS	ASH	Indian Traditional knowledge	2	0	-	2	20	30	--	--	50	2Hr
9	24UET309P	SEC1	ASH	Skill Enhancement in Instrumental Techniques	0	1	2	2	--	--	25	25	50	
10	24UFY111P	CC1	ASH	Liberal Learning Course: Yoga-1	--	--	--	2	--	--	50	--	50	2Hr
	24UFY112P		ASH	Liberal Learning Course: Physical Education-1	--	--	--		--	--	50	--	50	2Hr
	24UFY113P		ASH	Liberal Learning Course: Music-1	--	--	--		--	--	50	--	50	2Hr
	24UFY114P		ASH	Liberal learning Course: NSS-1	--	--	--		--	--	50	--	50	2Hr
				Total	14	2	8	22	180	270	150	100	700	

L-Lecture T-Tutorial

P-Practical

Total Theory	Total Tutorial	Total Practical
14	2	8

Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)
Programme: Electronics and Telecommunication
B.Tech. II Semester

Sr. No.	Course Code	Course Category	BOS/ Dept	Course Name	Contact Hours				Marks				Total Marks	ESE Duration	
									Theory		Practical				
					L	T	P	Credits	CE	ESE	CE	ESE			
1	24UFY2B1T	BSC	ASH	Integral Vector Calculus&statistics	3	1	0	4	40	60	--	--	100	3Hr	
2	24UFY2B2T	BSC	ASH	Engg. Physics	3	0	0	3	40	60	--	--	100	3Hr	
3	24UFY2B2P	BSC	ASH	Lab: Engg .Physics	0	0	2	1	--	--	25	25	50		
4	24UFY2C3T	ESC	ET	Digital Circuits & Logic Design	3	0	0	3	40	60	--	--	100	3Hr	
5	24UFY2C3P	ESC	ET	Lab: Digital Circuits& Logic Design	0	0	2	1	--	--	25	25	50	3Hr	
6	24UFY2B4T	ESC	ME	Computer Aided Graphics	1	0	0	1	20	30	--	--	50	2Hr	
7	24UFY2B4P	ESC	ME	Lab: Computer Aided Graphics	0	0	2	1	--	--	25	25	50		
8	24UFY223T	PCC	EC	Electronics Components and Microprocessor (EC/ET)	2	0	0	2	20	30	--	--	50	2Hr	
9	24UFY2B6T	AEC	ASH	Communication Skill	1	0	0	1	20	30	---	---	50	2Hr	
10	24UFY2B6P	AEC	ASH	Lab: Communication Skill	0	0	2	1	--	--	25	25	50		
11	24UFY2B7P	SEC2	ASH	Skill Enhancement in Analytical Techniques	0	1	2	2	--	--	25	25	50	2Hr	
12	24UFY211P	CC2	ASH	Liberal Learning Course:Yoga-2	--	--	--	2	--	--	50	--	50	2Hr	
	24UFY212P			Liberal Learning Course: Physical Education-2											
	24UFY213P			Liberal Learning Course:Music-2											
	24UFY214P			Liberal Learning Course:NSS-2											
					13	2	10	22	180	270	175	125	750		
L-LectureT-Tutorial					P-Practical					Total Theory		Total Tutorial		Total Practical	
										13		2		10	

Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)

Programme: Electronics and Telecommunication

B.Tech. III Semester

Sr. No.	Course Code	Course Category	BOS/ Dept	Course Name	Contact Hours				Marks				Total Marks	ESE Duration
					L	T	P	Credits	Theory		Practical			
									CE	ESE	CE	ESE		
1	24UET301T	PCC	ETC	Electronics Devices and Circuits	3			3	40	60			100	3Hr
2	24UET301P	PCC	ETC	Lab: Electronics Devices and Circuits			2	1			25	25	50	
3	24UET302T	PCC	ETC	Digital System Design	3			3	40	60			100	3Hr
4	24UET302P	PCC	ETC	Lab: Digital System Design			2	1			25	25	50	
5	24UET303T	PCC	ETC	Signals & System	3			3	40	60			100	3Hr
6	24UOE3XXT	OE	ETC	Open Elective (OE)-01	3			3	40	60			100	3Hr
7	24UBS306T	Entrepreneurship	ASH	Digital Economy and Management	2			2	20	30			50	2Hr
8	24UBS308T	VEC	ASH	Environmental Science	2			2	20	30			50	2Hr
9	24UET304P	FP	ETC	Field Project			4	2			25	25	50	
10	24UBS313T	MDM	ASH	Partial Differential Equations and Transform Methods	2			2	20	30			50	2Hr
				Total	18		8	22	220	330	75	75	700	

L-Lecture

T-Tutorial

P-Practical

Open Elective-01

Total Theory	Total Practical
07	03

S.N.	Course Code	Course Name
1	24UOE344T	Embedded System
2	24UOE345T	Electronics in agricultural
3	24UOE346T	Multimedia communication
MDM-I	24UBS313T	Partial Differential Equations and Transform Methods

Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)

Programme: Electronics and Telecommunication

B Tech. IV Semester

Sr. No.	Course Code	Course Category	BOS/ Dept	Course Name	Contact Hours				Marks				Total Marks	ESE Duration
					L	T	P	Credits	Theory		Practical			
									CE	ESE	CE	ESE		
1	24UET401T	PCC	ETC	Microcontrollers and Applications	3			3	40	60			100	3 Hr
2	24UET401P	PCC	ETC	Lab: Microcontrollers and Applications Lab			2	1			25	25	50	
3	24UET402T	PCC	ETC	Analog and Digital Communication	3			3	40	60			100	3 Hr
4	24UET402P	PCC	ETC	Lab: Analog and Digital Communication-Lab			2	1			25	25	50	
5	24UET403T	PCC	ETC	Network Theory	2			2	20	30			50	2 Hr
6	24UCS407T/ 24UCT409T	MDM	CT/CSE	MDM-II	2			2	20	30			50	2 Hr
7	24UOE4XXT	OE	ETC	Open Elective (OE)-02	2			2	20	30			50	2 Hr
8	24UET405P	VSEC	ETC	Lab: Software Workshop			4	2			25	25	50	
9	24UBS407T	AEC-02	ASH	Professional Communication	2			2	20	30			50	2 Hr
10	24UBS408T	Entrepreneurship	ASH	Entrepreneurship & Startup	2			2	20	30			50	2 Hr
11	24UET404P	VEC	ETC	Lab: Introduction to Python			2	1			25	25	50	
				Total	16		10	21	180	270	100	100	650	

L-Lecture
Open Elective-02

T-Tutorial

P-Practical
MDM-II

Total Theory	Total Practical
07	04

S.N.	Course Code	Course Name
1	24UOE444T	Biomedical Engineering
2	24UOE445T	Renewable Energy and Green Technology
3	24UOE446T	Micro Electro Mechanical System

S.N.	Course Code	Course Name
1	24UCS407T	Object Oriented Programming with Data structure
2	24UCT409T	Data Science and its applications

PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)

Programme: Electronics and Telecommunication

B.Tech. V Semester

Sr. No	Course Code	Course Category	BOS/ Dept	Course Name	Contact Hours				Marks				Total Marks	ESE Duration
									Theory		Practical			
					L	T	P	Credits	CE	ESE	CE	ESE		
1	25UET501T	PCC	ETC	Analog Circuits	3			3	40	60			100	3 Hr
2	25UET501P	PCC	ETC	Lab :Analog Circuits			2	1			25	25	50	
3	25UET502T	PCC	ETC	Digital Signal Processing	3	1		4	40	60			100	3 Hr
4	25UET502P	PCC	ETC	Lab : Digital Signal Processing			2	1			25	25	50	
5	25UET503T	PCC	ETC	Electromagnetic Waves	3	1		4	40	60			100	3 Hr
6	25UET5XXT	PEC	ETC	Program Elective-I	3			3	40	60			100	3 Hr
7	25UET5XXP	PEC	ETC	Lab : Program Elective-I			2	1			25	25	50	
8	25UCS507T/ 25UCT506T/	MDM	CSE/CT	MDM-III	3			3	40	60			100	3 Hr
9	25UCS507P/ 25UCT506P	MDM	CSE/CT	MDM-III LAB:-			2	1			25	25	50	
10	25UOE5XXT		ETC	Open Elective (OE)-03	2			2	20	30			50	2 Hr
				Total	17	2	8	23	220	330	100	100	750	

L-Lecture

T-Tutorial

P-Practical

Total Theory

Total Practical

6

4

Open Elective-03

S.N.	Course Code	Course Name
1	25UOE543T	Information and Communication Technology in Rural Sectors
2	25UOE544T	Soft Computing
3	25UOE545T	Computer Architecture
MDM-III	25UCS507T	Data Base Management system (DBMS)
	25UCS507P	Lab:-Data Base Management system (DBMS)
	25UCT506T	Python for Data Science
	25UCT506P	Lab:-Python for Data Science

Program Elective Course (PEC)-1:

S.No.	Course Code	Course Name	Course Code	Course Name
1	25UET521T	Wireless Sensor Network	25UET521P	Lab:Wireless Sensor Network
2	25UET522T	Error Control Coding	25UET522P	Lab:Error Control Coding
3	25UET523T	Electronics Design Technique with HDL	25UET523P	Lab:Electronics Design Technique with HDL

Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)

Programme: Electronics and Telecommunication

B. Tech. VI Semester

Sr. No.	Course Code	Course Category	BOS/ Dept	Course Name	Contact Hours				Marks				Total Marks	ESE Duration
					L	T	P	Credits	Theory		Practical			
									CE	ESE	CE	ESE		
1	25UET601T	PCC	ETC	Computer Communication Network	3			3	40	60			100	3 Hr
2	25UET601P	PCC	ETC	Lab: Computer Communication Network			2	1			25	25	50	
3	25UET602T	PCC	ETC	CMOS VLSI Design	3	1		4	40	60			100	3 Hr
4	25UET602P		ETC	Lab: CMOSVLSI Design			2	1			25	25	50	
5	25UET6XXT	PEC	ETC	Program Elective – II	3			3	40	60			100	3 Hr
6	25UET6XXP	PEC	ETC	Lab: Program Elective–II			2	1			25	25	50	
7	25UET6XXT	PEC	ETC	Program Elective – III	3			3	40	60			100	3 Hr
8	25UET603P	MDM	ETC	MDM-IV:Employability Enhancement Skills	0		4	2			100	-	100	2Hrs
9	25UET604P	VSEC	ETC	Hands on Development boards/ EDA Tools			2	1			25	25	50	
10	25UET605T	PCC	ETC	Control Systems	3			3	40	60			100	3 Hr
				Total	15	1	12	22	200	300	200	100	800	

L-Lecture

T-Tutorial

P-Practical

Total Theory

Total Practical

5

5

Program Elective Course (PEC)-2: Program Elective Course (PEC)-3:

S.N.	Course Code	Course Name	Course Code	Course Name
1	25UET621T	Antenna & Wave Propagation	25UET621P	Lab:Antenna & Wave Propagation
2	25UET622T	Audio & Video Engineering	25UET622P	Lab:Audio & Video Engineering
3	25UET623T	Internet of Things	25UET623P	Lab:Internet of Things

S.N.	Course Code	Course Name
1	25UET631T	Artificial Intelligence
2	25UET632T	Mobile Communication & Networks
3	25UET633T	Photonics
MDM-IV	25UET603P	Employability Enhancement Skills

Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)
Programme: Electronics and Telecommunication
B.Tech. VII Semester

Sr. No.	Course Code	Course Category	BOS/ Dept	Course Name	Contact Hours				Marks				Total Marks	ESE Duration
					L	T	P	Credits	Theory		Practical			
									CE	ESE	CE	ESE		
1	26UET701T	PCC	ETC	Embedded System Design	3	1		4	40	60			100	3 Hr
2	26UET701P	PCC	ETC	Lab: Embedded System Design			2	1			25	25	50	
3	26UET7XXT	PEC	ETC	Program Elective –IV	3	1		4	40	60			100	3 Hr
	26UET7XXP	PEC	ETC	LAB: Program Elective –IV			2	1			25	25	50	
4	26UCS708T/26UCT708T	MDM	CSE/CT	MDM-V	3			3	20	30			50	2 Hr
	26UCS708P/26UCT708P	MDM	CSE/CT	MDM-V LaB:-			2	1			25	25	50	
5	26UET702T	RM	ETC	Research Methodology	2			2	20	30			50	2 Hr
6.	26UET703P	Project	ETC	Project			8	4			50	50	100	
				Total	11	2	14	20	120	180	125	125	550	

M-Lecture

T-Tutorial

P-Practical

Total Theory	Total Practical
4	4

Program Elective Course (PEC)-4:

S.N.	Course Code	Course Name	Course Code	Course Name
1	26UET721T	Microwave Engineering	26UET721P	Microwave Engineering
2	26UET722T	Mixed Signal Design	26UET722P	Mixed Signal Design
3	26UET723T	Digital Image Processing	26UET723P	Digital Image Processing
MDM-V	26UCS708T	Artificial Intelligence	26UCS708P	Artificial Intelligence
	26UCT708T	Machine Learning	26UCT708P	Machine Learning

Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)
Programme: Electronics and Telecommunication
B.Tech. VIII Semester

Sr. No.	Course Code	Course Category	BOS/ Dept	Course Name	Contact Hours				Marks				Total Marks	ESE Duration
									Theory		Practical			
					L	T	P	Credits	CE	ESE	CE	ESE		
1	26UET8XXT	PEC	ETC	Program Elective –V (MOOC)	3			3	40	60			100	3 Hr
2	26UET8XXT	PEC	ETC	Program Elective –VI (MOOC)	3			3	40	60			100	3 Hr
3	26UET80XP	Internship/OJT /Project	ETC	Internship/On Job Training/Project			24	12			150	150	300	
				Total	6		24	18	80	120	150	150	500	

L-Lecture

T-Tutorial

P-Practical

Total Theory	Total Practical
2(MOOC)	1

Program Elective Course (PEC)-5: Program Elective Course (PEC)-6: (Optional)

S.N.	Course Code	Course Name
1	26UET821T	MEMS
2	26UET822T	Satellite Communication
3	26UET823T	Android Mobile Application Development

S.N.	Course Code	Course Name
1	26UET831T	Optical communication
2	26UET832T	Cyber security
3	26UET833T	Bio Medical Electronics

**Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)**

Programme:

**Annexure-1
Basket of Multidisciplinary Minor Subjects**

Specialization		MDM Basket -I Track I :Software programming		
Sr. No.	Semester	BOS/Department	Course Name	Credits
1	III	ASH	Partial Differential Equations and Transform Methods	02
2	IV	CSE	Object Oriented Programming with Data structure	02
3	V	CSE	Data Base Management system (DBMS)	03
4	V	CSE	Lab:- Data Base Management system (DBMS)	01
5	VI	ETC	Employability Enhancement Skills	02
6	VII	CSE	Artificial Intelligence	03
7	VII	CSE	Lab:- Artificial Intelligence	01
Total				14

Specialization		MDM Basket -II Track- II : Artificial Intelligence		
Sr. No.	Semester	BOS/Department	Course Name	Credits
1	III	ASH	Partial Differential Equations and Transform Methods	02
2	IV	CT	Data Science and its applications	02
3	V	CT	Python for Data Science	03
	V	CT	Lab:- Python for Data Science	01
4	VI	ETC	Employability Enhancement Skills	02
5	VII	CT	Machine Learning	03
	VII	CT	Lab:- Machine Learning	01
Total				14

**Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)**

Programme:

Annexure-2

Basket of Open Elective Subjects

Sr. No.	Semester	OE-1	OE-2	OE-3
1.	III	24UOE344T:Embedded System	24UOE345 : Electronics in Agricultural	24UOE346T : Multimedia Communication
2.	IV	24UOE444T:Biomedical Engineering	24UOE445T : Renewable Energy and Green Technology	24UOE446T : Micro Electro Mechanical System
3.	V	25UOE543T: Information and Communication Technology in Rural Sectors	25UOE544T:25UET506T: Soft Computing Tools in AI	25UOE545T:25UET506T :Computer Architecture

Lokmanya Tilak Jankalyan Shikshan Sanstha's
PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
(An Autonomous Institute Affiliated to R.T.M. Nagpur University)
Programme: Electronics and Telecommunication
Annexure-3
List of Professional Elective Courses (PEC)

Semester-V

Sr. No.	Course Code	Course Name PEC-1
1.	25UET521T	Wireless Sensor Network
2.	25UET522T	Error Control codes
3.	25UET523T	Electronics Design Technique with HDL

Semester-VI

Sr. No.	Course Code	PEC-2	Course Code	PEC-3
1.	25UET621T	Antenna & Wave Propagation	25UET631T	Artificial Intelligence & neural network
2.	25UET622T	Audio & video Engineering	25UET632T	Mobile Communication & Networks
3.	25UET623T	Internet of Things	25UET633T	Photonics

Semester-VII

Sr. No.	Course Code	PEC-4	Course Code	PEC-5
1.	26UET821T	MEMS	26UET721T	Microwave Engineering
2.	26UET822T	Satellite Communication	26UET722T	Mixed Signal design
3.	26UET823T	Android Mobile Application Development	26UET723T	Digital Image Processing

Semester-VIII

Sr. No.	Course Code	Course Name PEC-6
1.	26UET831T	Optical Communication
2.	26UET832T	Cyber Security
3.	26UET833T	Biomedical Electronics