

ANNEXURE A**FOLLOWING NPTEL COURSES ARE SUGGESTED FOR ELECTRONICS & TELECOMMUNICATION ENGINEERING****AND ELECTRONICS & COMMUNICATION ENGINEERING REVISED SCHEME (REVISED COURSE 2019-20)****(January 2023 to June 2023)**

Sr. No	Course Id	Discipline	Course Name	SME Name	Institute	Co-ordinating Institute	Duration (Weeks)	Credits
1	noc23-cs03	Computer Science & Engineering	Foundations of Cryptography	Prof. Ashish Choudhury	IIT Bangalore	IISc	12	3
2	noc23-cs04	Computer Science and Engineering	Quantum Algorithms and Cryptography	Prof. Shweta Agrawal	IITM	IITM	12	3
3	noc23-cs08	Computer Science and Engineering	Data Analytics with Python	Prof. A. Ramesh	IITR	IITR	12	3
4	noc23-cs10	Computer Science and Engineering	Information Security - 5 - Secure Systems Engineering	Prof. Chester Robeiro	IITM	IITM	8	2
5	noc23-cs16	Computer Science and Engineering	Design and analysis of algorithms	Prof. Madhavan Mukund	CMI	IITM	8	2
6	noc23-cs17	Computer Science and Engineering	Data Science for Engineers	Prof. Rangunathan Rengasamy Prof. Shankar Narasimhan	IITM	IITM	8	2
7	noc23-cs21	Computer Science and Engineering	Python for Data Science	Prof. Rangunathan Rengasamy	IITM	IITM	4	1
8	noc23-cs25	Computer Science and Engineering	User-centric Computing for Human-Computer Interaction	Prof. Samit Bhattacharya	IITG	IITG	8	2
9	noc23-cs28	Computer Science and Engineering	Introduction to parallel programming with OpenMP and MPI	Prof. Yogish Sabharwal	IITD	IITD	8	2

10	noc23-cs29	Computer Science and Engineering	Introduction to Database Systems	Prof. Sreenivasa Kumar	IITM	IITM	12	3
11	noc23-cs39	Computer Science and Engineering	Fundamental Algorithms: Design And Analysis	Prof. Sourav Mukhopadhyay	IITKGP	IITKGP	4	1
12	noc23-cs43	Computer Science and Engineering	Data Mining	Prof. Pabitra Mitra	IITKGP	IITKGP	8	2
13	noc23-cs44	Computer Science and Engineering	Ethical Hacking	Prof. Indranil Sengupta	IITKGP	IITKGP	12	3
14	noc23-cs47	Computer Science and Engineering	Blockchain and its Applications	Prof. Sandip Chakraborty Prof. Shamik Sural	IITKGP	IITKGP	12	3
15	noc23-cs61	Computer Science and Engineering	GPU Architectures And Programming	Prof. Soumyajit Dey	IITKGP	IITKGP	12	3
16	noc23-cs65	Computer Science and Engineering	Foundation of Cloud IoT Edge ML	Prof. Rajiv Misra	IITP	IITK	8	2
17	noc23-de06	Design Engineering	Design, Technology and Innovation	Prof. B. K. Chakravarthy	IITB	IITB	8	2
18	noc23-ee28	Electrical and Electronics Engineering	Multirate DSP	Prof. R. David Koilpillai	IITM	IITM	12	3
19	noc23-ee67	Electronics and Communication	Physics of Nanoscale Devices	Prof. Vishvendra Singh Poonia	IITR	IITR	12	3
20	noc23-hs10	Humanities and Social Science	Soft Skill Development	Prof. Priyadarshi Patnaik Prof. V. N. Giri Prof. D. Suar	IITKGP	IITKGP	8	2
21	noc23-hs11	Humanities and Social Science	Emotional Intelligence	Prof. Rabindra Kumar Pradhan	IITKGP	IITKGP	8	2
22	noc23-hs15	Humanities and Social Science	Introduction On Intellectual Property To Engineers And Technologists	Prof. Tapas Kumar Bandyopadhyay	IITKGP	IITKGP	8	2

23	noc23-lw01	Law	IP Management & Technology Transfer	Prof. Gouri Gargate	IITKGP	IITKGP	8	2
24	noc23-mg04	Management	Technology Forecasting for strategic decision making - An Introduction	Prof. Dmitry Kucharavy Prof. Bala Ramadurai	EM Strasbourg Business School (University of Strasbourg) and IITM	IITM	4	1
25	noc23-mg05	Management	Data Analysis and Decision Making - I	Prof. Raghu Nandan Sengupta	IITK	IITK	12	3
26	noc23-mg14	Management	Business analytics and data mining Modeling using R	Prof. Gaurav Dixit	IITR	IITR	12	3
27	noc23-mg28	Management	Leadership and Team Effectiveness	Prof. Santosh Rangnekar	IITR	IITR	12	3
28	noc23-mg33	Management	Principles of Management	Prof. Usha Lenka	IITR	IITR	12	3
29	noc23-mg53	Management	Modelling And Analytics For Supply Chain Management	Prof. Kunal Kanti Ghosh Prof. Anupam Ghosh	IITKGP	IITKGP	12	3
30	noc23-mg54	Management	Business Analytics For Management Decision	Prof. Rudra P Pradhan	IITKGP	IITKGP	12	3
31	noc22-mg73	Management	Innovation, Business Models and Entrepreneurship	Prof. Rajat Agarwal Prof. Vinay Sharma	IITR	IITR	8	2
32	noc23-hs74	Management, Psychology, Human Values	Yoga and Positive Psychology for Managing Career and Life	Prof. Ashish Pandey	IITB	IITB	8	2
33	noc23-ma01	Mathematics	Graph Theory	Prof. Soumen Maity	IISER PUNE	IITM	8	2

34	noc23-ma03	Mathematics	Linear Algebra	Prof. Pranav Haridas	Kerala School of Mathematics	IITM	12	3
35	noc23-ma39	Mathematics	Essentials Of Data Science With R Software - 1: Probability And Statistical Inference	Prof. Shalabh	IITK	IITK	12	3
36	noc23-ma40	Mathematics	Essentials Of Data Science With R Software - 2: Sampling Theory And Linear Regression Analysis	Prof. Shalabh	IITK	IITK	12	3
37	noc23-me18	Mechanical Engineering	Smart Materials and Intelligent System Design	Prof. Bishakh Bhattacharya	IITK	IITK	4	1
38	noc23-me50	Mechanical Engineering	Mechatronics	Prof. Pushparaj Mani Pathak	IITR	IITR	8	2
39	noc23-ph06	Physics	A brief course on Superconductivity	Prof. Saurabh Basu	IITG	IITG	4	1
40	noc23-ma31	Mathematics	Applied Linear Algebra in AI and ML	Prof. Swanand Khare	IITKGP	IITKGP	12	3