

ANNEXURE C

**FOLLOWING NPTEL COURSES ARE SUGGESTED FOR ELECTRONICS & TELECOMMUNICATION ENGINEERING,
ELECTRONICS & COMMUNICATION ENGINEERING AND ELECTRONICS (VLSI DESIGN AND TECHNOLOGY) ENGINEERING
(REVISED COURSE 2019-20)
(July 2023 to December 2023)**

Sr. No	Course ID	Discipline	Course Name	SME Name	Institute	Co-ordinating Institute	Credits	Duration
1	noc23-bt38	Electrical, Electronics and Communications Engineering	Fundamentals Of Micro And Nanofabrication	Prof Sushobhan Avasti Prof. Shankar Selvaraja	IISc	IISc	3	12 Weeks
2	noc23-bt40	Biotechnology and Bioengineering	Medical Image Analysis	Prof. Ganapathy Krishnamurthi	IITM	IITM	3	12 Weeks
3	noc23-bt48	Biotechnology and Bioengineering	Introduction To Biomedical Imaging Systems	Prof. Arun K. Thittai	IITM	IITM	3	12 Weeks
4	noc23-bt49	Biotechnology and Bioengineering	Organ Printing	Prof. Falguni Pati	IIT Hyderabad	IITM	2	8 Weeks
5	noc23-cs102	Computer Science and Engineering	Parameterized Algorithms	Prof. Neeldhara Misra Prof. Saket Saurabh	IIT Gandhinagar IMSC	IITM	3	12 Weeks
6	noc23-cs104	Computer Science and Engineering	Applied Accelerated Artificial Intelligence	Prof. Satyajit Das Prof. Satyadhyan Chickerur Prof. Bharatkumar Sharma Prof. Adesuyi Tosin	IIT Palakkad KLE Technological University NVIDIA	IITM	3	12 Weeks
7	noc23-cs108	Computer Science and Engineering	The Joy Of Computing Using Python	Prof. Sudarshan Iyengar	IIT Ropar	IITM	3	12 Weeks
8	noc23-cs110	Computer Science and Engineering	Deep Learning - IIT Ropar	Prof. Sudarshan Iyengar Prof. Padmavati	IIT Ropar	IITM	3	12 Weeks
9	noc23-cs112	Computer Science and Engineering	Big Data Computing	Prof. Rajiv Misra	IIT Patna	IITK	2	8 Weeks

10	noc23-cs114	Computer Science and Engineering	C-Based VLSI Design	Prof. Chandan Karfa	IITG	IITG	3	12 Weeks
11	noc23-cs115	Computer Science and Engineering	Computer Graphics	Prof. Samit Bhattacharya	IITG	IITG	2	8 Weeks
12	noc23-cs116	Computer Science and Engineering	Design & Implementation Of Human-Computer Interfaces	Prof. Samit Bhattacharya	IITG	IITG	3	12 Weeks
13	noc23-cs117	Computer Science and Engineering	Introduction To Game Theory And Mechanism Design	Prof. Swaprava Nath	IITB	IITB	3	12 Weeks
14	noc23-cs118	Computer Science and Engineering	Introduction To Computer And Network Performance Analysis Using Queuing Systems	Prof. Varsha Apte	IITB	IITB	1	4 Weeks
15	noc23-cs119	Computer Science and Engineering	Secure Computation: Part II	Prof Ashish Choudhary	IIITB	IISc	3	12 Weeks
16	noc23-cs68	Computer Science and Engineering	Advanced Distributed Systems	Prof. Smruti Ranjan Sarangi	IITD	IITD	3	12 Weeks
17	noc23-cs69	Computer Science and Engineering	Privacy And Security In Online Social Media	Prof. Ponnurangam Kumaraguru	IIITH	IITM	3	12 Weeks
18	noc23-cs72	Computer Science and Engineering	Distributed Systems	Prof. Rajiv Misra	IIT Patna	IITK	2	8 Weeks
19	noc23-cs75	Computer Science and Engineering	Ethical Hacking	Prof. Indranil Sengupta	IITKGP	IITKGP	3	12 Weeks
20	noc23-cs77	Computer Science and Engineering	Computer Vision	Prof. Jayanta Mukhopadhyay	IITKGP	IITKGP	3	12 Weeks
21	noc23-cs79	Computer Science and Engineering	Data Base Management System	Prof. Partha Pratim Das Prof. Samiran Chattopadhyay	IITKGP	IITKGP	2	8 Weeks
22	noc23-cs80	Computer Science and Engineering	Natural Language Processing	Prof. Pawan Goyal	IITKGP	IITKGP	3	12 Weeks
23	noc23-cs95	Computer Science and Engineering	Programming, Data Structures And Algorithms Using Python	Prof. Madhavan Mukund	CMI	IITM	2	8 Weeks

24	noc23-cs96	Computer Science and Engineering	Design And Analysis Of Algorithms	Prof. Madhavan Mukund	CMI	IITM	2	8 Weeks
25	noc23-cs97	Computer Science and Engineering	Data Science For Engineers	Prof. Rangunathan Rengasamy Prof. Shankar Narasimhan	IITM	IITM	2	8 Weeks
26	noc23-cs99	Computer Science and Engineering	Python For Data Science	Prof. Rangunathan Rengasamy	IITM	IITM	1	4 Weeks
27	noc23-cs126	Computer Science and Engineering	Deep Learning for Computer Vision	Prof. Vineeth N Balasubramanian	IITH	IITM	3	12 Weeks
28	noc23-ee124	Electrical and Electronics Engineering	Smart Grid: Basics To Advanced Technologies	Prof. N.P. Padhy Prof. Premalata Jena	IITR	IITR	3	12 Weeks
29	noc23-ee138	Electrical and Electronics Engineering	Introduction To Adaptive Signal Processing	Prof. Mrityunjoy Chakraborty	IITKGP	IITKGP	2	8 weeks
30	noc23-ee139	Electrical and Electronics Engineering	Nanobiophotonics: Touching Our Daily Life	Prof. Basudev Lahiri	IITKGP	IITKGP	3	12 weeks
31	noc23-ee141	Electronics and Electrical Engineering, Physics	Nanophotonics, Plasmonics, And Metamaterials	Prof. Debabrata Sikdar	IITG	IITG	3	12 weeks
32	noc23-ee86	Electrical and Electronics Engineering	Fundamentals Of Nano And Quantum Photonics	Prof. Naresh Kumar Emani	IITH	IITM	3	12 Weeks
33	noc23-ee89	Electrical and Electronics Engineering	Introductory Neuroscience & Neuro-Instrumentation	Prof. Mahesh Jayachandra	IISc	IISc	3	12 Weeks
34	noc23-ee95	Electrical and Electronics Engineering	Sensor Technologies: Physics, Fabrication, And Circuits	Prof. Mitradip Bhattacharjee	IISER Bhopal	IITM	2	8 Weeks

35	noc23-ee107	Electrical and Electronics Engineering	Design Of Photovoltaic Systems	Prof. L Umanand	IISc	IISc	3	12 Weeks
36	noc23-ee110	Electrical and Electronics Engineering	Electronic Systems For Cancer Diagnosis	Prof. Hardik Jeetendra Pandya	IISc	IISc	3	12 Weeks
37	noc23-ee121	Electrical and Electronics Engineering	Basics Of Software Defined Radios	Prof. Meenakshi Rawat	IITR	IITR	1	4 Weeks
38	noc23-ge36	Multidisciplinary	Introduction To Research New title: Research Methodology	Prof. Edamana Prasad Prof. Prathap Haridoss	IITM	IITM	2	8 Weeks
39	noc23-hs100	Humanities and Social Sciences	Economics Of IPR	Prof. Nalin Bharti	IITP	IITM	1	4 Weeks
40	noc23-hs145	Humanities and Social Sciences	Soft Skills	Prof. Binod Mishra	IITR	IITR	3	12 weeks
41	noc23-ma80	Mathematics	Linear Algebra	Prof. Dilip P. Patil	IISc Bangalore	IISc	3	12 Weeks
42	noc23-ma81	Mathematics	First Course On Partial Differential Equations - II	Prof Ak Nandakumaran Prof P S Datti	IISc	IISc	2	8 Weeks
43	noc23-ma92	Mathematics	Operations Research	Prof. Kusumdeep	IITR	IITR	2	8 Weeks
44	noc23-ma93	Mathematics	Essential Mathematics For Machine Learning	Prof. S. K. Gupta & Prof. Sanjeev Kumar	IITR	IITR	3	12 Weeks
45	noc23-mg116	Management	Innovation, Business Models And Entrepreneurship	Prof. Rajat Agrawal Prof. Vinay Sharma	IITR	IITR	2	8 Weeks
46	noc23-mg79	Management	Strategy: An Introduction To Game Theory	Prof. Aditya Jagannatham Prof. Vimal Kumar	IITK	IITK	2	8 Weeks
47	noc23-mg87	Management	Management Information System	Prof. Kunal Kanti Ghosh Prof. Saini Das Prof. Surojit Mukherjee	IITKGP	IITKGP	3	12 Weeks

48	noc23-ph43	Physics	Relativity: A Gentle Introduction	Prof. Siddharth Malu Prof. Abhirup Datta	IIT Indore	IITM	3	12 Weeks
49	noc23-ph45	Physics	Quantum Hall Effects	Prof. Saurabh Basu	IITG	IITG	2	8 Weeks
50	noc23-ph46	Physics	Scientific Computing Using Python	Prof. Mahendra K. Verma	IITK	IITK	3	12 Weeks
51	noc23-ee100	Electrical and Electronics Engineering	Applied Linear Algebra For Signal Processing, Data Analytics And Machine Learning	Prof. Aditya K. Jagannatham	IITK	IITK	3	12 Weeks
52	noc23-ee108	Electrical and Electronics Engineering	Enclosure Design Of Electronics Equipment	Prof. N. V Chalapathi Rao	IISc	IISc	3	12 Weeks

Note: The credits will be awarded based on the scheme proposed above. The student shall submit all the NPTEL/SWAYAM certificates to university through Heads of Department while applying for the degree.



Dr. H.G.Virani
BOS Chairman
ETC/ ECE/ Electronics (VLSI
Design & Tech) Engineering