

ANNEXURE-A

COMPUTER ENGINEERING

**LIST OF NPTEL/SWAYAM COURSES FOR THIRD AND FIFTH SEMESTER [RC (19-20)]
FOR THE ACADEMIC YEAR 2021-22**

Sr. No.	Course Id	Course Name (NPTEL Swayam Course)	SME Name	Institute	Duration	Credits	Link to Join
1	noc21-cs94	Demystifying Networking	Prof. Sridhar Iyer	IITB	4weeks	1	https://onlinecourses.nptel.ac.in/noc21_cs94/preview
2	noc21-cs59	Scalable Data Science	Prof. Anirban Das gupta Prof. Sourangshu Bhattacharya	IITKGP	8 weeks	2	https://onlinecourses.nptel.ac.in/noc21_cs59/preview
3	noc21-cs63	Introduction to internet of things	Prof. Sudip Misra	IITKGP	12 weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs63/preview
4	noc21-cs74	Social Networks	Prof. Sudarshan Iyengar	IIT Ropar	12 weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs74/preview
5	noc21-cs75	The Joy of Computing using Python	Prof. Sudarshan Iyengar Prof. Yayati Gupta	IIT Ropar	12 weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs75/preview

6	noc21-cs89	Introduction to algorithms and analysis	Prof. Sourav Mukhopadhyay	IITKGP	12 weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs89/preview
7	noc21-cs104	Probability for Computer Science	Prof. Nitin Saxena	IITK	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_cs104/preview
8	noc21-de13	Introduction to robotics	Prof. Asokan T Prof. Balaraman Ravindran Prof. Krishna Vasudevan	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_de13/preview
9	noc21-hs57	Developing Soft Skills and Personality	Prof. T. Ravichandran	IITK	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_hs57/preview
10	noc21-cs67	Programming, Data Structures And Algorithms Using Python	Prof. Madhavan Mukund	CMI	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_cs67/preview
11	noc21-mg60	Ethics in Engineering Practice	Prof. Susmita Mukhopadhyay	IITKGP	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_mg60/preview
12	noc21-mg70	Entrepreneurship	Prof. C Bhaktavatsala Rao	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_mg70/preview

13	noc21-ee68	Introduction to Smart Grid	Prof. N. P. Padhy Prof. Premalata Jena	IITR	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_ee68/preview
14	noc21-cs102	Natural Language Processing	Prof. Pawan Goyal	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs102/preview
15	noc21-cs71	Reinforcement Learning	Prof. Balaraman Ravindran	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs71/preview
16	noc21-cs77	Introduction To Haskell Programming	Prof. S. P Suresh	CMI	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_cs77/preview
17	noc21-cs78	Python for Data Science	Prof. RangunathanRengasamy	IITM	4 weeks	1	https://onlinecourses.nptel.ac.in/noc21_cs78/preview
18	noc21-cs60	Hardware modeling using verilog	Prof. Indranil Sengupta	IITKGP	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_cs60/preview
19	noc21-cs64	Switching Circuits and Logic Design	Prof. Indranil Sengupta	IIT Kharagpur	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs64/preview
20	noc21-hs61	Educational leadership	Prof. Atasi Mohanty	IITKGP	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_hs61/preview
21	noc21-cs70	Introduction to Machine Learning	Prof. Balaraman Ravindran	IITM	12 weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs70/preview
22	noc21-cs76	Deep learning	Prof. Sudarshan Iyengar Prof. Padmavati	IIT Ropar	12 weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs76/preview

23	noc21-cs79	Artificial Intelligence Search Methods For Problem Solving	Prof. Deepak Khemani	IITM	12 weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs79/preview
24	noc21-cs86	Big Data Computing	Prof. Rajiv Misra	IIT Patna	8 weeks	2	https://onlinecourses.nptel.ac.in/noc21_cs86/preview
25	noc21-cs103	Introduction to Quantum Computing: Quantum Algorithms and Qiskit	Prof. Prabha Mandayam Prof. Anupama Ray Prof. Sheshashayee Raghunathan	IBM and IITM	4 weeks	1	https://onlinecourses.nptel.ac.in/noc21_cs103/preview
26	noc21-cs69	Data Science for Engineers	Prof. Ragunathan Rengasamy Prof. Shankar Narasimhan	IITM	8 weeks	2	https://onlinecourses.nptel.ac.in/noc21_cs69/preview
27	noc21-cs101	Computer Vision	Prof. Jayanta Mukhopadhyay	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs101/preview
28	noc21-hs70	Patent Drafting for Beginners	Prof. Feroz Ali	IITM	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc21_hs70/preview
29	noc21-cs91	Secure Computation: Part I	Prof. Ashish Choudhury	IITB	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs91/preview
30	noc21-cs92	Parameterized Algorithms	Prof. Neeldhara Misra Prof. Saket Saurabh	IIT Gandhinagar IMSC	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs92/preview

31	noc21-cs99	Getting Started with Competitive Programming	Prof. Neeldhara Misra	IIT Gandhinagar	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs99/preview
32	noc21-cs100	Algorithms for protein modelling and engineering	Prof. Pralay Mitra	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs100/preview
33	noc21-cs90	Computational Complexity	Prof. Subrahmanyam Kalyanasundaram	IIT Hyderabad	12 weeks	3	https://onlinecourses.nptel.ac.in/noc21_cs90/preview
34	noc21-cs62	Cloud computing	Prof. Soumya Kanti Ghosh	IITKGP	8 weeks	2	https://onlinecourses.nptel.ac.in/noc21_cs62/preview
35	noc21-ar17	Visual Communication Design for Digital Media	Prof. Saptarshi Kolay	IITR	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc21_ar17/preview
36	noc21-ce61	Remote Sensing and GIS	Prof. Rishikesh Bharti	IITG	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_ce61/preview
37	noc21-ce77	Global Navigation Satellite Systems And Applications	Prof. Arun K. Saraf	IITR	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc21_ce77/preview
38	noc21-mg89	Management Information System	Prof. Kunal Kanti Ghosh Prof. Saini Das Prof. Surojit Mukherjee	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_mg89/preview

39	noc21-ge24	Game Theory	Prof. K.S. Mallikarjuna Rao	IITB	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_ge24/preview
40	noc21-ph22	Numerical Methods And Simulation Techniques For Scientists And Engineers	Prof. Saurabh Basu	IITG	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_ph22/preview

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