

Annexure I

**DEPARTMENT OF ELECTRONICS AND COMPUTER ENGINEERING AND
DEPARTMENT OF ELECTRONICS AND COMPUTER SCIENCE**

LIST OF ONLINE NPTEL/SWAYAM COURSES FOR ODD SEMESTER (RC 19-20)

FOR THE ACADEMIC YEAR 2022-23 (July-Oct 2023)

Sr. No.	Course Id	Course Name	SME Name	Institute	Duration	Credits	Link to Join	Semester*
1	noc23-ae09	Aircraft Stability And Control	Prof. A.K.Ghosh	IITK	12 weeks	3	https://onlinecourses.nptel.ac.in/noc23_ae09/preview	<u>III & V</u>
2	noc23-ae10	Introduction To Airplane Performance	Prof. A K Ghosh Prof Deepu Philip	IITK	8 weeks	2	https://onlinecourses.nptel.ac.in/noc23_ae10/preview	<u>III & V</u>
3	noc23-cs100	Reinforcement Learning	Prof. Balaraman Ravindran	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs100/preview	<u>V</u>
4	noc23-cs107	Social Networks	Prof. Sudarshan Iyengar Prof. Yayati Gupta	IIT Ropar	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs107/preview	<u>III & V</u>
5	noc23-cs108	The Joy Of Computing Using Python	Prof. Sudarshan Iyengar	IIT Ropar	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs108/preview	<u>III & V</u>
6	noc23-cs94	Introduction To Haskell Programming	Prof. S. P Suresh	CMI	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_cs94/preview	<u>V</u>
7	noc23-cs112	Big Data Computing	Prof. Rajiv Misra	IIT Patna	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc22_cs65/preview	<u>V</u>
8	noc23-cs118	Introduction To Computer And Network Performance Analysis Using Queuing Systems	Prof. Varsha Apte	IITB	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc22_cs114/preview	<u>V</u>
9	noc23-cs75	Ethical Hacking	Prof. Indranil Sengupta	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs44/preview	<u>III & V</u>

10	noc23-cs77	Computer Vision	Prof. Jayanta Mukhopadhyay	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs77/preview	<u>V</u>
11	noc23-cs91	Software Testing (IIITB)	Prof. Meenakshi D'Souza	IIITB	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs91/preview	<u>V</u>
12	noc23-cs95	Programming, Data Structures And Algorithms Using Python	Prof. Madhavan Mukund	CMI	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_cs15/preview	<u>III & V</u>
13	noc23-cs97	Data Science For Engineers	Prof. Ragunathan Rengasamy Prof. Shankar Narasimhan	IITM	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_cs17/preview	<u>III & V</u>
14	noc23-cs99	Python For Data Science	Prof. Ragunathan Rengasamy	IITM	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc23_cs21/preview	<u>V</u>
15	noc23-cs127	Cyber Security and Privacy	Prof. Saji K Mathew	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_cs127/preview	<u>III & V</u>
16	noc23-de16	Understanding Incubation And Entrepreneurship	Prof. B.K. Chakravarthy	IITB	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_de16/preview	<u>III & V</u>
17	noc23-de18	Innovation By Design	Prof. B. K. Chakravarthy	IITB	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc23_de18/preview	<u>III & V</u>
18	noc23-ee105	Transducers For Instrumentation	Ankur Gupta	IITD	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_ee105/preview	<u>III & V</u>
19	noc23-ee110	Electronic Systems For Cancer Diagnosis	Prof. Hardik Jeetendra Pandya	IISc	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_ee110/preview	<u>III & V</u>
20	noc23-ee115	Digital Circuits	Prof. Santanu Chattopadhyay	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_ee115/preview	<u>III & V</u>
21	noc23-ee131	Deep Learning	Prof. Prabir Kumar Biswas	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_ee131/preview	<u>V</u>

22	noc23-ee139	Nanobiophotonics: Touching Our Daily Life	Prof. Basudev Lahiri	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_ee139/preview	<u>V</u>
23	noc23-ee84	Introduction To Photonics	Prof. Balaji Srinivasan	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_ee84/preview	<u>V</u>
24	noc23-ee85	Probability Foundations For Electrical Engineers	Prof. Krishna Jagannathan	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_ee85/preview	<u>V</u>
25	noc23-ee88	System Design Through Verilog	Prof. Shaik Rafi Ahamed	IITG	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_ee88/preview	<u>V</u>
26	noc23-ee95	Sensor Technologies: Physics, Fabrication, And Circuits	Prof. Mitradip Bhattacharjee	IISER Bhopal	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_ee95/preview	<u>III & V</u>
27	noc23-hs116	Developing Soft Skills And Personality	Prof. T Ravichandran	IITK	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_hs116/preview	<u>III & V</u>
28	noc23-hs120	Introduction To Japanese Language And Culture	Prof. Vatsala Misra	IITK	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_hs120/preview	<u>III & V</u>
29	noc23-hs146	Body Language: Key To Professional Success	Prof. Rashmi Gaur	IITR	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc23_hs146/preview	<u>III & V</u>
30	noc23-hs151	Public Speaking	Prof. Binod Mishra	IITR	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_hs151/preview	<u>III & V</u>
31	noc23-hs98	German - I	Prof. Milind Brahme	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_hs98/preview	<u>III & V</u>
32	noc23-ma92	Operations Research	Prof. Kusumdeep	IITR	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_ma92/preview	<u>III & V</u>
33	noc23-ma96	Foundations Of R Software	Prof. Shalabh	IITK	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_ma96/preview	<u>III & V</u>
34	noc23-mg120	Business To Business Marketing (B2B)	Prof. Jogendra Nayak	IITR	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_mg120/preview	<u>III & V</u>
35	noc23-mg69	Project Management	Prof. Raghu Nandan Sengupta	IITK	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_mg69/preview	<u>III & V</u>

36	noc23-mg74	Entrepreneurship	Prof. C Bhaktavatsala Rao	IITM	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_mg74/preview	<u>III & V</u>
37	noc23-mg93	Strategic Management For Competitive Advantage	Prof. Sanjib Chowdhury	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_mg93/preview	<u>V</u>
38	noc23-mg97	Ethics In Engineering Practice	Prof. Susmita Mukhopadhyay	IITKGP	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_mg97/preview	<u>III & V</u>
39	noc23-ph35	Physics Of Renewable Energy Systems	Prof. Amreesh Chandra	IITKGP	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_ph35/preview	<u>V</u>

Note:

1. The credits will be awarded based on scheme proposed above.
2. Students should mandatory undertake ONE NPTEL/SWAYAM course of 3 CREDITS from the above list between 5th to 7th semester against 8th-semester course i.e. ECOMP830/ECS830 Elective –NPTEL/MOOC/SWAYAM.
3. The student shall submit the NPTEL/SWAYAM certificates to Goa University through Heads of Department while applying for the degree.

*Based on level of difficulty and pre-requisites required, appropriate courses are suggested for students of Semester III and Semester V.