

**COMPUTER ENGINEERING****LIST OF ONLINE NPTEL/SWAYAM COURSES FOR ODD SEMESTER (RC 19-20)****FOR THE ACADEMIC YEAR 2023-24 (JULY to OCTOBER 2023)**

<b>Sr. No.</b>	<b>Course Id</b>	<b>Course Name (NPTEL Swayam Course)</b>	<b>SME Name</b>	<b>Institute</b>	<b>Duration</b>	<b>Credits</b>	<b>Link to Join</b>
1	noc23-cs100	Reinforcement Learning	Prof. Balaraman Ravindran	IITM	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs100/preview">https://onlinecourses.nptel.ac.in/noc23_cs100/preview</a>
2	noc23-cs102	Parameterized Algorithms	Prof. Neeldhara Misra Prof. Saket Saurabh	IIT Gandhinagar IMSC	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs102/preview">https://onlinecourses.nptel.ac.in/noc23_cs102/preview</a>
3	noc23-cs103	Getting Started with Competitive Programming	Prof. Neeldhara Misra	IIT Gandhinagar	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs103/preview">https://onlinecourses.nptel.ac.in/noc23_cs103/preview</a>
4	noc23-cs104	Applied Accelerated Artificial Intelligence	Prof. Satyajit Das Prof. Satyadhyan Chickerur Prof. Bharatkumar Sharma Prof. Adesuyi Tosin	IIT Palakkad KLE Technological University NVIDIA	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs104/preview">https://onlinecourses.nptel.ac.in/noc23_cs104/preview</a>
5	noc23-cs106	Social Network Analysis	Prof. Tanmoy Chakraborty	IITD	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs106/preview">https://onlinecourses.nptel.ac.in/noc23_cs106/preview</a>

6	noc23-cs107	Social Networks	Prof. Sudarshan Iyengar Prof. Yayati Gupta	IIT Ropar	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs107/preview">https://onlinecourses.nptel.ac.in/noc23_cs107/preview</a>
7	noc23-cs108	The Joy of Computing Using Python	Prof. Sudarshan Iyengar	IIT Ropar	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs108/preview">https://onlinecourses.nptel.ac.in/noc23_cs108/preview</a>
8	noc23-cs110	Deep Learning - IIT Ropar	Prof. Sudarshan Iyengar Prof. Padmavati	IIT Ropar	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs110/preview">https://onlinecourses.nptel.ac.in/noc23_cs110/preview</a>
9	noc23-cs111	Computational Complexity	Prof. Subrahmanyam Kalyanasundaram	IIT Hyderabad	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs111/preview">https://onlinecourses.nptel.ac.in/noc23_cs111/preview</a>
10	noc23-cs112	Big Data Computing	Prof. Rajiv Misra	IIT Patna	8 Weeks	2	<a href="https://onlinecourses.nptel.ac.in/noc23_cs112/preview">https://onlinecourses.nptel.ac.in/noc23_cs112/preview</a>
11	noc23-cs116	Design & Implementation of Human-Computer Interfaces	Prof. Samit Bhattacharya	IITG	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs116/preview">https://onlinecourses.nptel.ac.in/noc23_cs116/preview</a>
12	noc23-cs119	Secure Computation: Part II	Prof. Ashish Choudhary	IIITB	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs119/preview">https://onlinecourses.nptel.ac.in/noc23_cs119/preview</a>
13	noc23-cs124	Demystifying Networking	Prof. Sridhar Iyer Prof. Ashutosh Raina	IITB	4 Weeks	1	<a href="https://onlinecourses.nptel.ac.in/noc23_cs124/preview">https://onlinecourses.nptel.ac.in/noc23_cs124/preview</a>
14	noc23-cs69	Privacy And Security in Online Social Media	Prof. Ponnurangam Kumaraguru	IIITH	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs69/preview">https://onlinecourses.nptel.ac.in/noc23_cs69/preview</a>
15	noc23-cs75	Ethical Hacking	Prof. Indranil Sengupta	IITKGP	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs75/preview">https://onlinecourses.nptel.ac.in/noc23_cs75/preview</a>
16	noc23-cs77	Computer Vision	Prof. Jayanta Mukhopadhyay	IITKGP	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs77/preview">https://onlinecourses.nptel.ac.in/noc23_cs77/preview</a>
17	noc23-cs80	Natural Language Processing	Prof. Pawan Goyal	IITKGP	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs80/preview">https://onlinecourses.nptel.ac.in/noc23_cs80/preview</a>

18	noc23-cs82	Introduction To Industry 4.0 And Industrial Internet of Things	Prof. Sudip Misra	IITKGP	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs82/preview">https://onlinecourses.nptel.ac.in/noc23_cs82/preview</a>
19	noc23-cs90	Google Cloud Computing Foundations	Prof. Soumya Kanti Ghosh	IIT KGP & Google	8 Weeks	2	<a href="https://onlinecourses.nptel.ac.in/noc23_cs90/preview">https://onlinecourses.nptel.ac.in/noc23_cs90/preview</a>
20	noc23-cs97	Data Science for Engineers	Prof. Ragunathan Rengasamy Prof. Shankar Narasimhan	IITM	8 Weeks	2	<a href="https://onlinecourses.nptel.ac.in/noc23_cs97/preview">https://onlinecourses.nptel.ac.in/noc23_cs97/preview</a>
21	noc23-cs99	Python For Data Science	Prof. Ragunathan Rengasamy	IITM	4 Weeks	1	<a href="https://onlinecourses.nptel.ac.in/noc23_cs99/preview">https://onlinecourses.nptel.ac.in/noc23_cs99/preview</a>
22	noc23-cs127	Cyber Security and Privacy	Prof. Saji K Mathew	IITM	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs127/preview">https://onlinecourses.nptel.ac.in/noc23_cs127/preview</a>
23	noc23-cs126	Deep Learning for Computer Vision	Prof. Vineeth N Balasubramanian	IITH	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs126/preview">https://onlinecourses.nptel.ac.in/noc23_cs126/preview</a>
24	noc23-ge36	Introduction To Research New title: Research Methodology	Prof. Edamana Prasad Prof. Prathap Haridoss	IITM	8 Weeks	2	<a href="https://onlinecourses.nptel.ac.in/noc23_ge36/preview">https://onlinecourses.nptel.ac.in/noc23_ge36/preview</a>
25	noc23-hs116	Developing Soft Skills and Personality	Prof. T Ravichandran	IITK	8 Weeks	2	<a href="https://onlinecourses.nptel.ac.in/noc23_hs116/preview">https://onlinecourses.nptel.ac.in/noc23_hs116/preview</a>
26	noc23-hs145	Soft Skills	Prof. Binod Mishra	IITR	12 weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_hs145/preview">https://onlinecourses.nptel.ac.in/noc23_hs145/preview</a>
27	noc23-cs84	Statistical Learning For Reliability Analysis	Prof. Monalisa Sarma	IITKGP	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs84/preview">https://onlinecourses.nptel.ac.in/noc23_cs84/preview</a>
28	noc23-bt40	Medical Image Analysis	Prof. Ganapathy Krishnamurthy	IITM	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_bt40/preview">https://onlinecourses.nptel.ac.in/noc23_bt40/preview</a>
29	noc23-ee118	Digital Image Processing	Prof. Prabir Kumar Biswas	IITKGP	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_ee118/preview">https://onlinecourses.nptel.ac.in/noc23_ee118/preview</a>

30	noc23-ee99	Applied Optimization For Wireless, Machine Learning, Big Data	Prof. Aditya K. Jagannatham	IIT Kanpur	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_ee99/preview">https://onlinecourses.nptel.ac.in/noc23_ee99/preview</a>
31	noc23-ge35	Numerical Methods For Engineers	Prof. Niket Kaisare	IITM	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_ge35/preview">https://onlinecourses.nptel.ac.in/noc23_ge35/preview</a>
32	noc23-ge44	Bandit Algorithm (Online Machine Learning)	Prof. Manjesh Hanawal	IITB	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_ge44/preview">https://onlinecourses.nptel.ac.in/noc23_ge44/preview</a>
33	noc23-cs81	Software Testing (IITKGP)	Prof. Rajib Mall	IITKGP	4 Weeks	1	<a href="https://onlinecourses.nptel.ac.in/noc23_cs81/preview">https://onlinecourses.nptel.ac.in/noc23_cs81/preview</a>
34	noc23-cs114	C-Based VLSI Design	Prof. Chandan Karfa	IITG	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs114/preview">https://onlinecourses.nptel.ac.in/noc23_cs114/preview</a>
35	noc23-cs68	Advanced Distributed Systems	Prof. Smruti Ranjan Sarangi	IITD	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_cs68/preview">https://onlinecourses.nptel.ac.in/noc23_cs68/preview</a>
36	noc23-cs76	Hardware Modeling Using Verilog	Prof. Indranil Sengupta	IITKGP	8 Weeks	2	<a href="https://onlinecourses.nptel.ac.in/noc23_cs76/preview">https://onlinecourses.nptel.ac.in/noc23_cs76/preview</a>
37	noc23-cs86	Machine Learning For Earth System Sciences	Prof. Adway Mitra	IITKGP	8 Weeks	2	<a href="https://onlinecourses.nptel.ac.in/noc23_cs86/preview">https://onlinecourses.nptel.ac.in/noc23_cs86/preview</a>
38	noc23-cs87	Introduction To Machine Learning - IITKGP	Prof. Sudeshna Sarkar	IITKGP	8 Weeks	2	<a href="https://onlinecourses.nptel.ac.in/noc23_cs87/preview">https://onlinecourses.nptel.ac.in/noc23_cs87/preview</a>
39	noc23-cs95	Programming, Data Structures And Algorithms Using Python	Prof. Madhavan Mukund	CMI	8 Weeks	2	<a href="https://onlinecourses.nptel.ac.in/noc23_cs95/preview">https://onlinecourses.nptel.ac.in/noc23_cs95/preview</a>
40	noc23-ge42	Learning Analytics Tools	Prof. Ramkumar Rajendran	IITB	12 Weeks	3	<a href="https://onlinecourses.nptel.ac.in/noc23_ge42/preview">https://onlinecourses.nptel.ac.in/noc23_ge42/preview</a>

**Note:**

1. The credits will be awarded based on scheme proposed above.
2. Students should mandatory undertake one NPTEL/SWAYAM course of only 3 credits from the above list between 5<sup>th</sup> to 7<sup>th</sup> semester against 8<sup>th</sup>-semester course i.e. CE820 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.