

ELECTRONICS AND COMPUTER ENGINEERING

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

January – April 2023

| Course Id | Course Name | SME Name | Institute | Duration | Credits | Link to Join |
|------------|---|---|---------------|----------|---------|---|
| noc23-cs02 | Introduction to programming in C | Prof. Satyadev Nandakumar | IITK | 8 Weeks | 2 | https://onlinecourses.nptel.ac.in/noc23_cs02 |
| noc23-cs03 | Foundations of Cryptography | Prof. Ashish Choudhury | IIT Bangalore | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_cs03 |
| noc23-cs05 | An Introduction to Artificial Intelligence | Prof. Mausam | IITD | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_cs05 |
| noc23-cs06 | Introduction to Embedded System Design | Prof. Dhananjay V. Gadre Prof. Badri N Subudhi | IITD | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_cs06 |
| noc23-cs08 | Data Analytics with Python | Prof. A. Ramesh | IITR | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_cs08 |
| noc23-cs09 | Artificial Intelligence: Knowledge Representation And Reasoning | Prof. Deepak Khemani | IITM | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_cs09 |
| noc23-cs15 | Programming, Data Structures And Algorithms Using Python | Prof. Madhavan Mukund | CMI | 8 Weeks | 2 | https://onlinecourses.nptel.ac.in/noc23_cs15 |
| noc23-cs16 | Design and analysis of algorithms | Prof. Madhavan Mukund | CMI | 8 Weeks | 2 | https://onlinecourses.nptel.ac.in/noc23_cs16 |
| noc23-cs17 | Data Science for Engineers | Prof. Rangunathan Rengasamy Prof. Shankar Narasimhan | IITM | 8 Weeks | 2 | https://onlinecourses.nptel.ac.in/noc23_cs17 |
| noc23-cs18 | Introduction to Machine Learning | Prof. Balaraman Ravindran | IITM | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_cs18 |
| noc23-cs20 | The Joy of Computing using Python | Prof. Sudarshan Iyengar | IIT Ropar | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_cs20 |
| noc23-cs21 | Python for Data Science | Prof. Rangunathan Rengasamy | IITM | 4 Weeks | 1 | https://onlinecourses.nptel.ac.in/noc23_cs21 |
| noc23-cs50 | Programming in Modern C++ | Prof. Partha Pratim Das | IITKGP | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_cs50 |

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|------------|--|---|---------------------------|----------|---|---|
| noc23-cs51 | Introduction To Internet Of Things | Prof. Sudip Misra | IITKGP | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_cs51 |
| noc23-cs52 | Introduction To Industry 4.0 And Industrial Internet Of Things | Prof. Sudip Misra | IITKGP | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_cs52 |
| noc23-de04 | Understanding Incubation and Entrepreneurship | Prof. B. K. Chakravarthy | IITB | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_de04 |
| noc23-de05 | Innovation by Design | Prof. B. K. Chakravarthy | IITB | 4 Weeks | 1 | https://onlinecourses.nptel.ac.in/noc23_de05 |
| noc23-ee07 | CMOS Digital VLSI Design | Prof. Sudeb Dasgupta | IITR | 8 Weeks | 2 | https://onlinecourses.nptel.ac.in/noc23_ee07 |
| noc23-ee09 | A brief introduction of Micro - Sensors | Prof. Santanu Talukder | IISER Bhopal | 4 Weeks | 1 | https://onlinecourses.nptel.ac.in/noc23_ee09 |
| noc23-ee11 | Digital IC Design | Prof. Janakiraman | IITM | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_ee11 |
| noc23-ee14 | Signals and Systems | Prof. Hitesh Shrimali Prof. Kushal K. Shah | IIT Mandi | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_ee14 |
| noc23-ee16 | Control engineering | Prof. Ramkrishna.P | IITM | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_ee16 |
| noc23-ee18 | Microwave Integrated Circuits | Prof. Jayanta Mukherjee | IITB | 8 Weeks | 2 | https://onlinecourses.nptel.ac.in/noc23_ee18 |
| noc23-ee78 | Modern Computer Vision | Prof. A. N. Rajagopalan | IITM | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_ee78 |
| noc23-ee41 | Advanced Neural Science for Engineers | Prof. Vikas V Prof. Hardik J Pandya | Nimhans Bangalore IISc | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_ee41 |
| noc23-ee43 | Medical Image Analysis | Prof. Debdoot Sheet | IITKGP | 4 Weeks | | https://onlinecourses.nptel.ac.in/noc23_ee43 |
| noc23-ee44 | VLSI Signal Processing | Prof. Mrityunjoy Chakraborty | IITKGP | 8 Weeks | 2 | https://onlinecourses.nptel.ac.in/noc23_ee44 |
| noc23-ee49 | Biomedical Signal Processing | Prof. Sudipta Mukhopadhyay | IITKGP | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_ee49 |
| noc23-ee52 | Power System Engineering | Prof. Debapriya Das | IITKGP | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_ee52 |
| noc23-ee56 | Industrial Automation And Control | Prof. Alokanti Deb | IITKGP | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_ee56 |
| noc23-ee65 | Op-Amp Practical Applications: Design, Simulation and Implementation | Prof. Hardik J Pandya | IISc | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_ee65 |
| noc23-ee66 | Sensors and actuators | Prof. Hardik J Pandya | IISc | 12 Weeks | 3 | https://onlinecourses.nptel.ac.in/noc23_ee66 |

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|----------------|--|--|--------|----------|----------|---|
| noc23- hs10 | Soft Skill Development | Prof. Priyadarshi Patnaik Prof. V. N. Giri Prof. D. Suar | IITKGP | 8 Weeks | <u>2</u> | https://onlinecourses.nptel.ac.in/noc23_hs10 |
| noc23- hs43 | Patent Drafting for Beginners | Prof. Feroz Ali | IITM | 4 Weeks | <u>1</u> | https://onlinecourses.nptel.ac.in/noc23_hs43 |
| noc23- hs55 | Intellectual Property | Prof. Feroz Ali | IITM | 12 Weeks | <u>3</u> | https://onlinecourses.nptel.ac.in/noc23_hs55 |
| noc23- mg09 | Introduction to Operations Research | Prof. G. Srinivasan | IITM | 8 Weeks | <u>2</u> | https://onlinecourses.nptel.ac.in/noc23_mg09 |
| noc23- mg14 | Business analytics and data mining Modeling using R | Prof. Gaurav Dixit | IITR | 12 Weeks | <u>3</u> | https://onlinecourses.nptel.ac.in/noc23_mg14 |
| noc23- mg22 | Business Statistics | Prof. Mukesh Kumar Barua | IITR | 12 Weeks | <u>3</u> | https://onlinecourses.nptel.ac.in/noc23_mg22 |
| noc23- mg28 | Leadership and Team Effectiveness | Prof. Santosh Rangnekar | IITR | 12 Weeks | <u>3</u> | https://onlinecourses.nptel.ac.in/noc23_mg28 |
| noc23- mg33 | Principles of Management | Prof. Usha Lenka | IITR | 12 Weeks | <u>3</u> | https://onlinecourses.nptel.ac.in/noc23_mg33 |
| noc23- mg41 | Ethics In Engineering Practice | Prof. Susmita Mukhopadhyay | IITKGP | 8 Weeks | <u>2</u> | https://onlinecourses.nptel.ac.in/noc23_mg41 |
| noc23- mg61 | Business Development: From Start to Scale | Prof. C Bhaktavatsala Rao | IITM | 12 Weeks | <u>3</u> | https://onlinecourses.nptel.ac.in/noc23_mg61 |
| noc23- mg63 | Artificial Intelligence (AI) for Investments | Prof. Abhinava Tripathi | IITK | 12 Weeks | <u>3</u> | https://onlinecourses.nptel.ac.in/noc23_mg63 |
| noc23- ma24 | Probability And Statistics | Prof. Somesh Kumar | IITKGP | 12 Weeks | <u>3</u> | https://onlinecourses.nptel.ac.in/noc23_ma24 |
| noc23- ma31 | Applied Linear Algebra in AI and ML | Prof. Swanand Khare | IITKGP | 12 Weeks | <u>3</u> | https://onlinecourses.nptel.ac.in/noc23_ma31 |
| noc23- me07 | Robotics and Control : Theory and Practice | Prof. N. Sukavanam Prof. M. Felix Orlando | IITR | 8 Weeks | <u>2</u> | https://onlinecourses.nptel.ac.in/noc23_me07 |
| noc23- me50 | Mechatronics | Prof. Pushparaj Mani Pathak | IITR | 8 Weeks | <u>2</u> | https://onlinecourses.nptel.ac.in/noc23_me50 |
| noc23- me67 | Robotics: Basics and Selected Advanced Concepts | Prof. Ashitava Ghosal | IISc | 12 Weeks | <u>3</u> | https://onlinecourses.nptel.ac.in/noc23_me67 |
| noc23- ge05 | Introduction to Research | Prof. Edamana Prasad Prof. Prathap Haridoss | IITM | 8 Weeks | <u>2</u> | https://onlinecourses.nptel.ac.in/noc23_ge05 |

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 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.