

# **GITA AUTONOMOUS COLLEGE, BHUBANESWAR**



## **List of Honors Subjects from SWAYAM-NTPEL MOOCs**

**B.Tech. Admission Batch 2020 – 21 Onwards**

## List of Honours Subjects for 3<sup>rd</sup> Semester

| Sl. No. | Title of the Course   | No. of weeks (Credit) | Branch                        | Course Link   |
|---------|---|-----------------------|-------------------------------|---|
| 01      | Foundations of Cryptography                                     | 12 Weeks (04)         | CSE, CSI, CSII, CSFDS, CSEAI  | <a href="https://onlinecourses.nptel.ac.in/noc22_cs03_preview">https://onlinecourses.nptel.ac.in/noc22_cs03_preview</a> |
| 02      | GPU Architectures and Programming                               | 12 Weeks (04)         | CSE, CSI, CSII, CSEDS, CSLAI  | <a href="https://onlinecourses.nptel.ac.in/noc22_cs09_preview">https://onlinecourses.nptel.ac.in/noc22_cs09_preview</a> |
| 03      | Ethical Hacking   | 12 Weeks (04)         | CSE, CSI, CSII, CSLDS, CSEAI  | <a href="https://onlinecourses.nptel.ac.in/noc22_cs13_preview">https://onlinecourses.nptel.ac.in/noc22_cs13_preview</a> |
| 04      | Online Privacy  | 12 Weeks (04)         | CSE, CSI, CSII, CSFDS, CSEAI  | <a href="https://onlinecourses.nptel.ac.in/noc22_cs37_preview">https://onlinecourses.nptel.ac.in/noc22_cs37_preview</a> |
| 05      | Embedded Systems Design   | 12 Weeks (04)         | CSE, CSI, CSII, CSEDS, CSLAI  | <a href="https://onlinecourses.nptel.ac.in/noc22_cs46_preview">https://onlinecourses.nptel.ac.in/noc22_cs46_preview</a> |
| 06      | Hardware Security   | 12 Weeks (04)         | CSE, CSI, CSII, CSFDS, CSEAI  | <a href="https://onlinecourses.nptel.ac.in/noc22_cs48_preview">https://onlinecourses.nptel.ac.in/noc22_cs48_preview</a> |
| 07      | Introduction to Industry 4.0 and Industrial Internet of Things  | 12 Weeks (04)         | CSE, CSI, CSII, CSFDS, CSLAI  | <a href="https://onlinecourses.nptel.ac.in/noc22_cs52_preview">https://onlinecourses.nptel.ac.in/noc22_cs52_preview</a> |
| 08      | Object Oriented System Development Using UML, Java and Patterns | 12 Weeks (04)         | CSE, CSI, CSII, CSEDS, CS, AI | <a href="https://onlinecourses.nptel.ac.in/noc22_cs55_preview">https://onlinecourses.nptel.ac.in/noc22_cs55_preview</a> |
| 09      | Getting Started with Competitive Programming                    | 12 Weeks (04)         | CSE, CSI, CSII, CSEDS, CSLAI  | <a href="https://onlinecourses.nptel.ac.in/noc22_cs59_preview">https://onlinecourses.nptel.ac.in/noc22_cs59_preview</a> |
| 10      | Electric – Vehicles Part 1                                      | 12 Weeks (04)         | ECE                           | <a href="https://onlinecourses.nptel.ac.in/noc22_ee53_preview">https://onlinecourses.nptel.ac.in/noc22_ee53_preview</a> |
| 11      | Integrated Circuits, Mosfets, OP-Amps and their Applications    | 12 Weeks (04)         | ECE                           | <a href="https://onlinecourses.nptel.ac.in/noc22_ee27_preview">https://onlinecourses.nptel.ac.in/noc22_ee27_preview</a> |
| 12      | Electronics Enclosure & Thermal Issues                          | 12 Weeks (04)         | ECE                           | <a href="https://onlinecourses.nptel.ac.in/noc22_ee26_preview">https://onlinecourses.nptel.ac.in/noc22_ee26_preview</a> |
| 13      | Analog IC design  | 12 Weeks (04)         | ECE                           | <a href="https://onlinecourses.nptel.ac.in/noc22_ee37_preview">https://onlinecourses.nptel.ac.in/noc22_ee37_preview</a> |
| 14      | Nonlinear System Analysis                                       | 12 Weeks (04)         | EE, EEE                       | <a href="https://onlinecourses.nptel.ac.in/noc22_ee01_preview">https://onlinecourses.nptel.ac.in/noc22_ee01_preview</a> |
| 15      | Power System Dynamics, Control and Monitoring                   | 12 Weeks (04)         | EE, EEE                       | <a href="https://onlinecourses.nptel.ac.in/noc22_ee18_preview">https://onlinecourses.nptel.ac.in/noc22_ee18_preview</a> |
| 16      | Power System Engineering  | 12 Weeks (04)         | EE, EEE                       | <a href="https://onlinecourses.nptel.ac.in/noc22_ee17_preview">https://onlinecourses.nptel.ac.in/noc22_ee17_preview</a> |
| 17      | Transmission lines and electromagnetic waves                    | 12 Weeks (04)         | EE, EEE                       | <a href="https://onlinecourses.nptel.ac.in/noc22_ee43_preview">https://onlinecourses.nptel.ac.in/noc22_ee43_preview</a> |
| 18      | Power Quality Improvement Technique                             | 12 Weeks (04)         | EE, EEE                       | <a href="https://onlinecourses.nptel.ac.in/noc22_ee30_preview">https://onlinecourses.nptel.ac.in/noc22_ee30_preview</a> |
| 19      | Electric Vehicles - Part 1                                      | 12 Weeks (04)         | EE, EEE                       | <a href="https://onlinecourses.nptel.ac.in/noc22_ee53_preview">https://onlinecourses.nptel.ac.in/noc22_ee53_preview</a> |
| 20      | Product Design & Manufacturing                                  | 12 Weeks (04)         | ME                            | <a href="https://onlinecourses.nptel.ac.in/noc22_me11_preview">https://onlinecourses.nptel.ac.in/noc22_me11_preview</a> |
| 21      | Introduction to Mechanical Micro Machining                      | 12 Weeks (04)         | ME                            | <a href="https://onlinecourses.nptel.ac.in/noc22_me14_preview">https://onlinecourses.nptel.ac.in/noc22_me14_preview</a> |
| 22      | Vibration of Structures   | 12 Weeks (04)         | ME                            | <a href="https://onlinecourses.nptel.ac.in/noc22_me26_preview">https://onlinecourses.nptel.ac.in/noc22_me26_preview</a> |
| 23      | Experimental methods in Fluid Mechanics                         | 12 Weeks (04)         | ME                            | <a href="https://onlinecourses.nptel.ac.in/noc22_me30_preview">https://onlinecourses.nptel.ac.in/noc22_me30_preview</a> |
| 24      | Oil Hydraulics and Pneumatics                                   | 12 Weeks (04)         | ME                            | <a href="https://onlinecourses.nptel.ac.in/noc22_me26_preview">https://onlinecourses.nptel.ac.in/noc22_me26_preview</a> |

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| 25 | Mechanics of fiber reinforced polymer composite structures | 12 Weeks (04) | ME    | <a href="https://onlinecourses.nptel.ac.in/noc22_me40/preview">https://onlinecourses.nptel.ac.in/noc22_me40/preview</a> |
| 26 | Noise Management & Control                                 | 12 Weeks (04) | ME    | <a href="https://onlinecourses.nptel.ac.in/noc22_me52/preview">https://onlinecourses.nptel.ac.in/noc22_me52/preview</a> |
| 27 | Machinery Fault Diagnosis and Signal Processing            | 12 Weeks (04) | ME    | <a href="https://onlinecourses.nptel.ac.in/noc22_me60/preview">https://onlinecourses.nptel.ac.in/noc22_me60/preview</a> |
| 28 | Geology and soil mechanics                                 | 12 Weeks (04) | Civil | <a href="https://onlinecourses.nptel.ac.in/noc22_ce02/preview">https://onlinecourses.nptel.ac.in/noc22_ce02/preview</a> |
| 29 | Hydraulic Engineering                                      | 12 Weeks (04) | Civil | <a href="https://onlinecourses.nptel.ac.in/noc22_ce06/preview">https://onlinecourses.nptel.ac.in/noc22_ce06/preview</a> |
| 30 | Remote Sensing Essentials                                  | 12 Weeks (04) | Civil | <a href="https://onlinecourses.nptel.ac.in/noc22_ce10/preview">https://onlinecourses.nptel.ac.in/noc22_ce10/preview</a> |
| 31 | Structural Dynamics  | 12 Weeks (04) | Civil | <a href="https://onlinecourses.nptel.ac.in/noc22_ce14/preview">https://onlinecourses.nptel.ac.in/noc22_ce14/preview</a> |
| 32 | Engineering Hydrology                                      | 12 Weeks (04) | Civil | <a href="https://onlinecourses.nptel.ac.in/noc22_ce19/preview">https://onlinecourses.nptel.ac.in/noc22_ce19/preview</a> |
| 33 | Rock Engineering   | 12 Weeks (04) | Civil | <a href="https://onlinecourses.nptel.ac.in/noc22_ce28/preview">https://onlinecourses.nptel.ac.in/noc22_ce28/preview</a> |
| 34 | Probability Methods of Civil Engineering                   | 12 Weeks (04) | Civil | <a href="https://onlinecourses.nptel.ac.in/noc22_ce31/preview">https://onlinecourses.nptel.ac.in/noc22_ce31/preview</a> |
| 35 | Soil Structure Interaction                                 | 12 Weeks (04) | Civil | <a href="https://onlinecourses.nptel.ac.in/noc22_ce36/preview">https://onlinecourses.nptel.ac.in/noc22_ce36/preview</a> |
| 36 | Rural Water Resources Management                           | 12 Weeks (04) | Civil | <a href="https://onlinecourses.nptel.ac.in/noc22_ce45/preview">https://onlinecourses.nptel.ac.in/noc22_ce45/preview</a> |
| 37 | Urban Transportation System Planning                       | 12 Weeks (04) | Civil | <a href="https://onlinecourses.nptel.ac.in/noc22_ce34/preview">https://onlinecourses.nptel.ac.in/noc22_ce34/preview</a> |