



## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

**R18 B.Tech. List of SWAYAM MOOCS Courses as Electives for AY 2023-24**

**(July – December 2023 Session)**

### R18 B.Tech. III Year I Semester

Dept.	MOOCS Course (s) (Professional Elective – I)	MOOCS Course (s) (Professional Elective – II)
Civil Engg.	1. Optimization Methods for Civil Engineering (IITG) 2. Rock Mechanics and Tunneling (IITKGP)	---
EEE	1. An Introduction to Coding Theory (IITK)	---
ECE	1. Introduction To Computer and Network Performance Analysis Using Queuing Systems (IITB) 2. Modern Digital Communication Techniques (IITKGP)	---
EIE	1. Electrical Measurement and Electronic Instruments (IITKGP) 2. Introduction to Operating Systems (IITM) 3. Robotics (IITKGP) 4. Industrial Robotics: Theories for Implementation (IIT-ISM Dhanbad) 5. Introduction to Robotics (IITM)	---
CSE	1. Computer Vision (IITKGP) 2. Programming, Data Structures and Algorithms Using Python (CMI)	1. Computer Graphics (IITG) 2. Natural Language Processing (IITKGP)
IT	1. Multi-Core Computer Architecture (IITG) 2. Computer Vision (IITKGP)	1. Computer Graphics (IITG) 2. Introduction to Machine Learning (IITKGP)
CSE (AIML)/ AIDS/ AIML	1. Computer Vision (IITKGP) 2. Computer Graphics (IITG)	1. Software Testing (IITKGP) 2. Pattern Recognition and Applications (IITKGP) 3. Computer Vision (IITKGP)
CSE (Cyber Security)	1. Applied Accelerated Artificial Intelligence (IIT Palakkad) 2. Cloud Computing (IITKGP)	1. Data Science for Engineers (IITM) 2. Introduction To Industry 4.0 And Industrial Internet of Things (IITKGP)
CSE (Data Science)	1. Applied Accelerated Artificial Intelligence (IIT Palakkad) 2. Computer Graphics (IITG) 3. Computer Vision (IITKGP)	1. Computer Vision (IITKGP) 2. Programming, Data Structures and Algorithms Using Python (CMI)
CSE (IOT)	1. Design and Analysis of Algorithms (CMI)	1. Introduction to Machine Learning (IITKGP) 2. Software Engineering (IITKGP)
CSE (Networks)	1. Multi-Core Computer Architecture (IITG) 2. Distributed Systems (IIT Patna) 3. Operations Research (IITR)	1. Computer Vision (IITKGP) 2. Data Science for Engineers (IITM) 3. Introduction To Game Theory and Mechanism Design (IITB)
CE (Software Engg.)	1. Computer Vision (IITKGP) 2. Computer Graphics (IITG)	1. Introduction to Internet of Things (IITKGP) 2. Software Conceptual Design (IITB)
Computer Sc. and Design	1. Data Science for Engineers (IITM) 2. Computer Vision (IITKGP)	1. Statistical Learning for Reliability Analysis (IITKGP) 2. Natural Language Processing (IITKGP)

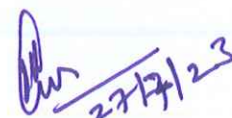
**R18 B.Tech. IV Year I Semester**

Dept.	MOOCS Course(s) (Professional Elective – II)	MOOCS Course(s) (Professional Elective – III)	MOOCS Course(s) (Professional Elective – IV)	MOOCS Course(s) (Professional Elective – V)
Civil Engg.	---	<ol style="list-style-type: none"> <li>1. Remote Sensing and GIS (IITG)</li> <li>2. Ground Improvement (IITKGP)</li> <li>3. Bridge Engineering (IIT-ISM)</li> </ol>	<ol style="list-style-type: none"> <li>1. Water Economics and Governance (IITKGP)</li> <li>2. Sustainable Engineering Concepts and Life Cycle Analysis (IITKGP)</li> <li>3. Availability and Management of Ground Water Resources (IIT – ISM)</li> </ol>	---
EEE	---	<ol style="list-style-type: none"> <li>1. Real-time Digital Signal Processing (IISc)</li> </ol>	<ol style="list-style-type: none"> <li>1. Design of Photovoltaic Systems (IISc)</li> </ol>	---
Mech. Engg.	<ol style="list-style-type: none"> <li>1. Metal Additive Manufacturing (IITK)</li> <li>2. Automation in Manufacturing (IITG)</li> </ol>	<ol style="list-style-type: none"> <li>1. Power Plant Engineering (IITR)</li> </ol>	<ol style="list-style-type: none"> <li>1. Computational Fluid Dynamics (IITKGP)</li> </ol>	---
ECE	---	<ol style="list-style-type: none"> <li>1. Artificial Intelligence: Search Methods for Problem Solving (IITM)</li> <li>2. Python For Data Science (IITM)</li> <li>3. Digital Image Processing (IITKGP)</li> <li>4. Pattern Recognition and Application (IITKGP)</li> </ol>	<ol style="list-style-type: none"> <li>1. Mathematics Aspects of Biomedical Electronic System Design (IISc)</li> <li>2. Database Management System (IITKGP)</li> <li>3. Social Network Analysis (IITD)</li> <li>4. Social Networks (IIT Ropar)</li> </ol>	---
EIE	---	<ol style="list-style-type: none"> <li>1. Fabrication Techniques for MEMS Based Sensors: Clinical Perspective (IISc)</li> </ol>	<ol style="list-style-type: none"> <li>1. Mathematics Aspects of Biomedical Electronic System Design (IISc)</li> <li>2. Introduction To Computer and Network Performance Analysis Using Queuing Systems (IITB)</li> <li>3. Artificial Intelligence: Search Methods for Problem Solving (IITM)</li> </ol>	---
CSE	---	---	<ol style="list-style-type: none"> <li>1. Applied Accelerated Artificial Intelligence (IIT Palakkad)</li> <li>2. Cloud Computing (IITKGP)</li> </ol>	<ol style="list-style-type: none"> <li>1. Introduction to Internet of Things (IITKGP)</li> <li>2. Computational Complexity (IITH)</li> </ol>



IT	---	---	<ol style="list-style-type: none"> <li>1. Applied Accelerated Artificial Intelligence (IIT Palakkad)</li> <li>3. Cloud Computing (IITKGP)</li> </ol>	<ol style="list-style-type: none"> <li>1. Reinforcement Learning (IITM)</li> <li>2. Advanced Distributed Systems (IITD)</li> </ol>
CSE (AIML)	---	---	<ol style="list-style-type: none"> <li>1. Cloud Computing (IITKGP)</li> <li>2. Introduction To Game Theory and Mechanism Design (IITB)</li> </ol>	<ol style="list-style-type: none"> <li>1. Social Network Analysis (IITD)</li> <li>2. Statistical Learning for Reliability Analysis (IITKGP)</li> </ol>
CSE (Cyber Sec.)	---	---	<ol style="list-style-type: none"> <li>1. Deep Learning (IIT Ropar)</li> <li>2. Privacy And Security in Online social media (IIITH)</li> </ol>	<ol style="list-style-type: none"> <li>1. Big Data Computing (IIT Patna)</li> <li>2. Introduction To Haskell Programming (CMI)</li> </ol>
CSE (Data Science)	---	---	<ol style="list-style-type: none"> <li>1. Natural Language Processing (IITKGP)</li> <li>2. Introduction to Internet of Things (IITKGP)</li> </ol>	<ol style="list-style-type: none"> <li>1. Cloud Computing (IITKGP)</li> <li>2. Data Science for Engineers (IITM)</li> </ol>
CSE (IOT)	---	---	<ol style="list-style-type: none"> <li>1. Introduction To Industry 4.0 And Industrial Internet of Things (IITKGP)</li> </ol>	<ol style="list-style-type: none"> <li>1. Introduction to Machine Learning (IITKGP)</li> <li>2. Distributed Systems (IIT Patna)</li> </ol>
CSE (Networks)	---	---	<ol style="list-style-type: none"> <li>1. Deep Learning (IIT Ropar)</li> <li>2. Cyber Security and Privacy (IITM)</li> </ol>	<ol style="list-style-type: none"> <li>1. Introduction to Machine Learning (IITKGP)</li> <li>2. Introduction To Haskell Programming (CMI)</li> </ol>
CE (Software Engg.)	---	---	<ol style="list-style-type: none"> <li>1. Natural Language Processing (IITKGP)</li> <li>2. Software Testing (IITKGP)</li> </ol>	<ol style="list-style-type: none"> <li>1. Cyber Security and Privacy (IITM)</li> <li>2. Cloud Computing (IITKGP)</li> </ol>

**Note:** Principals are requested to instruct the students not to repeat courses/subjects with the same title. A student has to take the approval of the allocated mentor (by the HOD) before finalization of MOOCS Courses. The mentor has to thoroughly verify and ensure that 1) All the pre-requisites for the MOOCS courses are satisfied, 2) The titles of the subjects in the forthcoming semesters are not similar to the subjects studied under MOOCS in the current semesters.

 27/7/23

**REGISTRAR**