



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
List of SWAYAM MOOCS Courses as Electives for AY 2024-25
(July – December 2024 Batch)

R22 B.Tech. III Year I Semester

Dept.	MOOCS Course (s) (Professional Elective – I)	MOOCS Course (s) (Professional Elective – II)
CE	--	--
EEE	Analog VLSI Design (IITKGP)	--
ME	--	--
ECE	1. Computer Architecture (IITD) 2. Social Network Analysis (IITD) 3. Electrical Measurement & Electronic Instrumentation (IITKGP)	--
EIE	1. Electrical Measurement & Electronic Instrumentation (IITKGP) 2. Operating System Fundamentals (IITKGP) 3. Introduction to Internet of Things (IITKGP)	--
CSE	1. Digital Image Processing (IITKGP) 2. EXCELing with Mathematical Modeling (IITR)	Computer Vision (IITKGP)
AI & ML/ CSE (AI&ML)	Digital Image Processing (IITKGP)	--
AI&DS	Digital Image Processing (IITKGP)	--
CSBS	Operations and Supply Chain Management (IITM)	Cloud Computing (IITKGP)
CSD	Digital Image Processing (IITKGP)	System Design for Sustainability (IITG)
CSIT	Digital Image Processing (IITKGP)	Pattern Recognition and Application (IITKGP)
CSE (Cyber Security)	1. Artificial Intelligence: Search Methods for Problem solving (IITM) 2. Cloud Computing (IITKGP)	Ethical Hacking (IITKGP)
CSE (Data Science)	Digital Image Processing (IITKGP)	Computer Vision (IITKGP)
CSE (Networks)	Social Networks (IIT Ropar)	1. Digital Image Processing (IITKGP) 2. Algorithmic Game Theory (IIT KGP)
CSE (IoT)	Introduction To Algorithms and Analysis (IITKGP)	--
CE (Software Engg.)	1. Artificial Intelligence: Search Methods for Problem solving (IITM) 2. Digital Image Processing (IITKGP)	Introduction to Internet of Things (IITKGP)
IT	1. Digital Image Processing (IITKGP) 2. EXCELing with Mathematical Modeling (IITR)	1. Pattern Recognition and Application (IIT KGP) 2. Computer Vision (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)
CE	--	<ol style="list-style-type: none"> 1. Remote Sensing: Principles and Applications (IITB) 2. Ground Improvement (IIT KGP) 3. Bridge Engineering (ISM Dhanbad) 	<ol style="list-style-type: none"> 1. Environmental Modeling and Simulation (IITR) 2. Optimization Methods for Civil Engineering (IITG) 	--
EEE	--	Real time Digital Signal Processing (IISc)	Design of Photovoltaic Systems (IISc)	--
ME	<ol style="list-style-type: none"> 1. Engineering Fracture Mechanics (IITM) 2. Vibrations of Plates and Shells (IISc) 	<ol style="list-style-type: none"> 1. Applied Numerical Methods (IITK) 2. Advanced Thermodynamics and Combustion (IITG) 	<ol style="list-style-type: none"> 1. Computational Fluid Dynamics using Finite Volume Method (IITM) 2. Finite Element Method: Variational Methods to Computer Programming (IITG) 	--
ECE	--	<ol style="list-style-type: none"> 1. Machine Learning and Deep Learning - Fundamentals and Applications (IITG) 2. Mathematics for Machine Learning (IIT KGP) 3. Digital Image Processing (IIT KGP) 4. Pattern Recognition and Application (IIT KGP) 	<ol style="list-style-type: none"> 1. Data Structure and Algorithms using Java (IIT KGP) 2. Practical Cyber Security for Cyber Security Practitioners (IITK) 3. Cyber Security and Privacy (IITM) 	--
EIE	--	--	<ol style="list-style-type: none"> 1. Mathematical Aspects of Biomedical Electronic System Design (IISc) 2. Social Networks (IIT Ropar) 3. Pattern Recognition and Application (IIT KGP) 4. Machine Learning and Deep Learning - Fundamentals and Applications (IITG) 	--

			5. Social Network Analysis (IITD) 6. Computer Architecture (IITD)	
CSE	--	--	1. Applied Accelerated Artificial Intelligence (IIT Palakkad) 2. Cloud Computing (IITKGP)	1. Introduction to Internet of Things (IITKGP) 2. Computational Complexity (IITH)
AI & ML/ CSE (AI&ML)	--	--	1. Cloud Computing (IITKGP) 2. Algorithmic Game Theory (IIT KGP)	1. Social Network Analysis (IITD) 2. Statistical Learning for Reliability Analysis (IIT KGP)
AI&DS	--	--	Cloud Computing (IITKGP)	Social Network Analysis (IITD)
CSBS	--	--	--	1. Artificial Intelligence: Search Methods for Problem solving (IITM) 2. Digital Image Processing (IITKGP)
CSD	--	--	Cloud Computing (IITKGP)	Algorithmic Game Theory (IIT KGP)
CSIT	--	--	Introduction to Internet of Things (IITKGP)	1. Cyber Security and Privacy (IITM) 2. Reinforcement Learning (IITM 12W)
CSE (Cyber Security)	--	--	1. Deep Learning (IIT Ropar) 2. Cyber Security and Privacy (IITM)	EXCELING with Mathematical Modeling (IITR)
CSE (Data Science)	--	--	Introduction to Internet of Things (IITKGP)	1. Cloud Computing (IITKGP) 2. Probability Theory for Data Science (IIT Tirupati)
CSE (Networks)	--	--	1. Deep Learning (IIT Ropar) 2. Cyber Security and Privacy (IITM)	Introduction to Machine Learning (IITM)
CSE (IoT)	--	--	Introduction to Industry 4.0 and Industrial Internet of Things (IITKGP)	Introduction to Machine Learning (IITM)
CE (Software Engg.)	--	--	Software Testing (IIIT B)	1. Cyber Security and Privacy (IITM)

				2. Cloud Computing (IITKGP)
IT	--	--	1. Applied Accelerated Artificial Intelligence (IIT Palakkad) 2. Cloud Computing (IITKGP)	1. Reinforcement Learning (IITM 12 W) 2. Advanced Distributed Systems (IITD)

Note: Principals are requested to instruct the students not to repeat courses/subjects with the same title. **All Courses are of 12 Weeks duration only.**

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.


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