



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
List of SWAYAM MOOCS Courses as Electives for AY 2026-27
(July – December 2026 Semester)

R22 B.Tech. III Year I Semester

Name of the Dept.	MOOCS Course (s) (Professional Elective – I)	MOOCS Course (s) (Professional Elective – II)
Civil Engg.	--	--
EEE	NPTEL Computer-Aided Design of Electrical Machines (IITMD 12W)	--
Mech. Engg.	--	--
ECE	NPTEL 1. Operating System Fundamentals (IITKGP 12W) 2. Computer Architecture and Organization (IITKGP 12W) 3. Computer Architecture (IITD 12W) 4. Computer Networks (IIT Indore 12 Weeks) 5. Electrical Measurement and Electronic Instruments (IITKGP 12W) Skillsoft 1. Computer Networks (3 Credits) 2. Operating Systems (3 Credits)	--
EIE	NPTEL 1. Real-Time Systems (IITKGP 12W) 2. Introduction to Internet of Things (IITKGP 12W) 3. Introduction to Industry 4.0 and Industrial Internet of Things (IITKGP 12W)	--
AI & DS	NPTEL 1. Multi-Core Computer Architecture (IITG 12W) 2. Digital Image Processing (IITKGP 12W) Skillsoft AR, VR, Game Development (3 Credits)	--

CE (Software Engg.)	NPTEL 1. Artificial Intelligence: Foundations and Algorithms (IITD 12W) 2. Digital Image Processing (IITKGP 12W)	NPTEL Introduction to Internet of Things (IITKGP 12W)
	Skillsoft Artificial Intelligence (3 Credits)	Skillsoft DevOps (3 Credits)
CSBS	Skillsoft Business Skills (Skillsoft 3 Credits)	NPTEL Cloud Computing (IITKGP 12W)
		Skillsoft Cloud Computing (3 Credits)
CSD	NPTEL 1. Design & Implementation of Human-Computer Interfaces (IITG 12W) 2. Digital Image Processing (IITKGP 12W)	NPTEL Real-Time Systems (IITKGP 12W)
	Skillsoft 1. AI for Data Analytics and BI (3 Credits) 2. Data Analytics with R (3 Credits)	
CSE	NPTEL 1. Multi-Core Computer Architecture (IITG 12W) 2. Digital Image Processing (IITKGP 12W)	NPTEL 1. Real-Time Systems (IITKGP 12W) 2. Natural Language Processing (IITKGP 12W)
	Skillsoft AI for Data Analytics and BI (3 Credits)	Skillsoft 1. AR, VR, Game Development (3 Credits) 2. Database Development in SQL (3 Credits)
CSE (AI&ML)/ AI&ML	NPTEL Digital Image Processing (IITKGP 12W)	--
	Skillsoft 1. AI for Data Science (3 Credits) 2. AR, VR, Game Development (3 Credits)	
CSE (Cyber Security)	NPTEL 1. Artificial Intelligence: Foundations and Algorithms (IITD 12W) 2. Cloud Computing (IITKGP 12W)	NPTEL Ethical Hacking (IITKGP 12W)
	Skillsoft 1. Artificial Intelligence (3 Credits) 2. Cloud Computing (3 Credits)	
CSE(DS)	NPTEL 1. Artificial Intelligence: Concepts and Techniques (IIScB 12W) 2. Digital Image Processing (IITKGP 12W)	NPTEL 1. Computer Vision (IITKGP 12W) 2. Software Project Management (IITKGP 12W)

	Skillsoft 1. Artificial Intelligence (3 Credits) 2. AR, VR, Game Development (3 Credits)	Skillsoft 1. Software Process and Project Management (3 Credits) 2. DevOps (3 Credits)
CSE (IOT)	NPTEL Introduction to Algorithms and Analysis (IITKGP 12W)	--
CSE (Networks)	NPTEL Multi-Core Computer Architecture (IITG 12W)	NPTEL Digital Image Processing (IITKGP 12W)
	Skillsoft DevOps (3 Credits)	Skillsoft Data Analytics (3 Credits)
CSIT/ IT	NPTEL 1. Multi-Core Computer Architecture (IITG 12W) 2. Digital Image Processing (IITKGP 12W)	NPTEL Computer Vision (IITKGP 12W)
	Skillsoft Data Analytics (3 Credits)	

R22 B.Tech. IV Year I Semester

Name of the 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.	NPTEL 1. Earthquake Geotechnical Engineering (IITR 12W) 2. Advanced Structural Analysis (IIT Bhubaneswar 12W)	NPTEL Ground Improvement (IITKGP 12W)	NPTEL 1. Sustainable Groundwater Management (IITM 12W) 2. Groundwater Engineering (IITR 12W)	--
EEE	--	NPTEL Electric Vehicle: Its Components, Charging Infrastructure and Grid Integration Solution (IITR 12W) Skillsoft Mobile Application Development (3 Credits)	NPTEL Economic Operations and Control of Power Systems (IITK 12W)	--

Mech. Engg.	NPTEL Automation in Manufacturing (IITG 12W)	--	NPTEL Computational Fluid Dynamics (IITKGP 12W)	--
ECE	--	NPTEL 1. Principles and Techniques of Modern Radar Systems (IITKGP 12W) 2. Analog VLSI Design (IITK 12W) 3. Machine Learning and Deep Learning - Fundamentals and Applications (IITG 12W) 4. VLSI Design Flow: RTL to GDS (IIIT Delhi 12W) 5. Neural Networks for Signal Processing – I (IISc 12W)	NPTEL 1. Theory and Practice of Modern Cryptography (IITKGP 12W) 2. Biomedical Instrumentation (IITM 12W)	--
EIE	--	--	NPTEL 1. Computer Vision (IITKGP 12W) 2. Computer Networks (IIT Indore 12W) 3. Digital Image Processing (IITKGP 12W) 4. Machine Learning and Deep Learning - Fundamentals and Applications (IITG 12W)	--
AI & DS	--	NPTEL Introduction to Internet of Things (IITKGP 12W)	NPTEL 1. Cloud Computing (IITKGP 12W) 2. Algorithmic Game Theory (IITKGP 12W)	--
		Skillsoft 1. Scripting Languages (3 Credits) 2. Mobile Application Development (3 Credits)	Skillsoft Cloud Computing (3 Credits)	

CE (Software Engg.)	--	--	NPTEL 1. Natural Language Processing (IITKGP 12W) 2. Software Project Management (IITKGP 12W)	NPTEL Cloud Computing (IITKGP 12W)
			Skillsoft 1. Data Visualization and Storytelling (3 Credits) 2. Software Process and Project Management (3 Credits)	Skillsoft Cloud Computing (3 Credits)
CSBS	--	--	NPTEL Natural Language Processing (IITKGP 12W)	NPTEL 1. Artificial Intelligence: Concepts and Techniques (IIScB 12W) 2. Digital Image Processing (IITKGP 12W)
			Skillsoft DevOps (3 Credits)	Skillsoft Blockchain Technology (3 Credits)
CSD	--	--	NPTEL Cloud Computing (IITKGP 12W)	NPTEL 1. Introduction to Application of Artificial Intelligence to Robotics (IITR 12W) 2. Software Project Management (IITKGP 12W)
			Skillsoft 1. AR, VR, Game Development (3 Credits) 2. Cloud Computing (3 Credits)	Skillsoft Software Process and Project Management (3 Credits)
CSE	--	--	NPTEL 1. Algorithmic Game Theory (IITKGP 12W) 2. Cyber Security and Privacy (IITM 12W) 3. Cloud Computing (IITKGP 12W)	NPTEL 1. Second Level Algorithms (IITKGP 12W) 2. Introduction to Application of Artificial Intelligence to Robotics (IITR 12W)

				3. Software Project Management (IITKGP 12W)
			Skillsoft 1. Cyber Security (3 Credits) 2. Cloud Computing (3 Credits)	Skillsoft Software Process and Project Management (3 Credits)
CSE (AI&ML), AI & ML	--	NPTEL 1. Introduction to Internet of Things (IITKGP 12W) 2. Cloud Computing (IITKGP 12W)	NPTEL Algorithmic Game Theory (IITKGP 12W)	--
		Skillsoft 1. Scripting Languages (3 Credits) 2. Mobile Application Development (3 Credits) 3. Cloud Computing (3 Credits)		
CSE (Cyber Security)	--	--	NPTEL 1. Privacy and Security in Online Social Media (IIIT Hyd 12W) 2. Deep Learning (IIT Ropar 12W)	NPTEL 5G Wireless Standard Design Deep Learning (IITK 12W)
			Skillsoft Deep Learning (3 Credits)	
CSE (DS)	--	--	NPTEL 1. Introduction to Internet of Things (IITKGP 12W) 2. Natural Language Processing (IITKGP 12W)	NPTEL Cloud Computing (IITKGP 12W)
			Skillsoft Natural Language Processing (3 Credits)	Skillsoft Cloud Computing (3 Credits)
CSE (IOT)	--	NPTEL 1. Software Testing (IIITB 12W) 2. Cloud Computing (IITKGP 12W) 3. Artificial Intelligence: Foundations and Algorithms (IITD 12W)	Skillsoft AR, VR, Game Development (3 Credits)	--
		Skillsoft		

		1. Mobile Application Development (3 Credits) 2. Cloud Computing (3 Credits) 3. Artificial Intelligence (3 Credits)		
CSE (Networks)	--	--	NPTEL Deep Learning (IIT Ropar 12W)	NPTEL Software Project Management (IITKGP 12W)
			Skillsoft Deep Learning (3 Credits)	Skillsoft Software Process and Project Management (3 Credits)
CSIT/ IT	--	--	NPTEL 1. Design & Implementation of Human -Computer Interfaces (IITG 12W) 2. Artificial Intelligence: Foundations and Algorithms (IITD 12W)	NPTEL 1. Deep Learning (IIT Ropar 12W) 2. Software Project Management (IITKGP 12W)
			Skillsoft Artificial Intelligence (3 Credits)	Skillsoft 1. Blockchain Technology (3 Credits) 2. Deep Learning (3 Credits) 3. Software Process and Project Management (3 Credits)

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.


DIRECTOR
Academic and Planning