



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**R18 B. Tech. List of SWAYAM Courses as Electives for AY 2021-22**  
**(July – December 2021 Batch)**  
**(Tentatively list)**

**R18 B.TECH III Year I Semester**

Name of the Department	MOOCS Course (s) (Professional Elective – I)	MOOCS Course (s) (Professional Elective – II)
<b>Civil Engineering</b>	1. Sustainable Transportation Systems (IITR 12 Weeks) 2. Introduction to Engineering Seismology (IISC 12 Weeks)	--
<b>Electrical and Electronics Engineering</b>	Introductory Neuroscience & Neuro-Instrumentation (IISC 12 Weeks)	--
<b>Mechanical Engineering</b>	--	--
<b>Electronics and Communication Engineering</b>	1. Introduction to Internet of Things (IITKGP 12 Weeks) 2. Fiber Optic Communication Technology (IITM 12 Weeks)	--
<b>Electronics and Instrumentation</b>	Fiber Optic Communication Technology (IITM 12 Weeks)	--
<b>Computer Science and Engineering</b>	1. Advanced computer architecture (IITD 12 Weeks) 2. Data Science for Engineers (IITM 8 Weeks)	1. Social Networks (IIT Ropar 12 Weeks) 2. Big Data Computing (IIT Patna 8 Weeks)
<b>Information Technology</b>	1. Advanced computer architecture (IITD 12 Weeks) 2. Social Networks (IIT Ropar 12 Weeks)	1. Introduction to Machine Learning (IITM 12 Weeks) 2. Data Science for Engineers (IITM 8 Weeks)

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

Name of the Department	MOOCS Course(s) (Professional Elective – II)	MOOCS Course(s) (Professional Elective – III)	MOOCS Course(s) (Professional Elective – IV)	MOOCS Course(s) (Professional Elective – V)
<b>Civil Engineering</b>	--	1. Remote Sensing & GIS (IITG 8 Weeks) 2. round Improvement (IITKGP 12 Weeks)	1. Waste Water Treatment and Recycling (IITKGP 12 Weeks) 2. Integrated Waste Management for a Smart City (IITKGP 12 Weeks) 3. Water Economics and Governance (IITKGP 12 Weeks)	--
<b>Electrical and Electronics Engineering</b>	---	1. Electric Vehicles & Renewable Energy (IITM 12 Weeks)	1. Design for Internet of Things (IISC 8 Weeks)	--

		2. Electrical Distribution System Analysis (IITR 8 Weeks)	2. DC Microgrid and Control System (IITR 8 Weeks)	
<b>Mechanical Engineering</b>	1. Fundamentals of Additive Manufacturing Technologies (IITG 12 Weeks) 2. Rapid Manufacturing (IITK 12 Weeks)	Power Plant Engineering (IITR 8 Weeks)	1. Computational Fluid Dynamics (IITKGP 12 Weeks) 2. Computational Fluid Dynamics using Finite Volume Method (IITM 12 Weeks)	--
<b>Electronics and Communication Engineering</b>	--	Introduction to Machine Learning (IITM 12 Weeks)	Microelectronics: Devices to Circuits (IITR 12 Weeks)	--
<b>Electronics and Instrumentation</b>	--	Introduction to Robotics (IITM 12 Weeks)	Introduction to Machine Learning (IITM 12 Weeks)	--
<b>Computer Science and Engineering</b>	--	--	1. Artificial Intelligence Search Methods for Problem Solving (IITM 12 Weeks) 2. Introduction to Research (IITM 8 Weeks)	1. Real-Time Systems (IITKGP 12 Weeks) 2. Introduction to Industry 4.0 and Industrial Internet of Things (IITKGP 12 Weeks)
<b>Information Technology</b>	--	--	1. Secure Computation: Part - I (IITB 12 Weeks) 2. Artificial Intelligence Search Methods for Problem Solving (IITM 12 Weeks)	1. Real-Time Systems (IITKGP 12 Weeks) 2. Getting Started with Competitive Programming (IITGNR 12 Weeks)

Sd/-XXXX  
DIRECTOR,  
Academic & Planning