

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

No. / ECED/B.Tech-ECI/KITS/2022

Date: 12.12.2022

Submitted to the Prof. I/c Honors & Minor Programme:

Sub: Submission of identified Equivalent SWAYAM-MOOC courses for B.Tech (ECI)

Programmes- Reg.

Ref: No.03 /HMP/KITS/2022/dated; 08.12.2022

It is bring to your kind notice that following are the details of SWAYAM-NPTEL MOOC Courses identified from the department end based on the circular released from your office vide reference cited above. The document is submitted for your favour of information & kind perusal.

Honors Programme- B.Tech(ECI) :

S. No	Hounours curriculum course Identified by the Dept	Equivalent SWAYAM - MOOC course	ONLINE COURSE LINK
1.	U18HCI1001: Advanced Sensors and Actuators	Sensors and actuators	https://nptel.ac.in/courses/108108147
2.	U18HCI1002 Mathematical Foundation for Machine Learning	Machine Learning, ML	https://nptel.ac.in/courses/106106202
3.	U18HCI1003 Advanced IoT and its Applications	Introduction To Internet Of Things	https://nptel.ac.in/courses/106105166
4.	U18HCI1004 Artificial Intelligence Applications	An Introduction to Artificial Intelligence	https://nptel.ac.in/courses/106102220
5.	U18HCI1005 Op-Amp Applications: Design and Implementation	Op-Amp Practical Applications: Design, Simulation and Implementation	https://nptel.ac.in/courses/108108114
6.	U18HCI1006 Advanced communication systems	Principles of Communication Systems - I	https://nptel.ac.in/courses/108104091
7.	U18HCI1007 Data Science for Engineers	Data Science for Engineers	https://nptel.ac.in/courses/106106179
8.	U18HCI1008 Biomedical signal and Image processing	Biomedical Signal Processing	https://nptel.ac.in/courses/108105101
9.	U18HCI1009 Advanced Digital Signal Processing	Foundations of Wavelets and Multirate Digital Signal Processing	https://nptel.ac.in/courses/117101123
10.	U18HCI1010 Photonics and Applications	Biophotonics	https://nptel.ac.in/courses/127105225
11.	U18HCI1011 Microelectronics	-	-
12.	U18HCI1012 Digital VLSI Testing	CMOS Digital VLSI Design	https://nptel.ac.in/courses/108107129
13.	U18HCI1013 Software Defined Radio	-	-
14.	U18HCI1014 mm Wave communication	-	-
15.	U18HCI1015 Deep Learning for Computer Vision	Deep Learning For Visual Computing	https://nptel.ac.in/courses/108105103

MINOR Programme _ B.Tech(ECI):

S. No	MINOR curriculum course Identified by the Dept	Equivalent SWAYAM - MOOC course	ONLINE COURSE LINK
1.	U18MCI1001 Analog Electronic Circuits	Analog Electronic Circuits - IITM	https://nptel.ac.in/courses/108106188
2.	U18MCI1002 Signals and Systems	Signals and Systems	https://nptel.ac.in/courses/108106163
3.	U18MCI1003 Electrical Measurement and Electronic Instruments	-	-
4.	U18MCI1004 Digital Circuits	Digital Electronic Circuits	https://nptel.ac.in/courses/108105132
5.	U18MCI1005 Sensors & Actuators	Sensors and actuators	https://nptel.ac.in/courses/108108147
6.	U18MCI1006 Communication Engineering	Principles of Communication Systems - I	https://nptel.ac.in/courses/108104091
7.	U18MCI1007 Integrated Circuits	-	-
8.	U18MCI1008 Digital Signal Processing	Digital Signal Processing	https://nptel.ac.in/courses/108106151
9.	U18MCI1009 Microprocessors and Interfacing	Microprocessors and Interfacing	https://nptel.ac.in/courses/108103157
10.	U18MCI1010 Industrial Internet of Things	Introduction To Industry 4.0 And Industrial Internet Of Things	https://nptel.ac.in/courses/106105195
11.	U18MCI1011 Introduction to Embedded System Design	Embedded Systems Design	https://nptel.ac.in/courses/106105159
12.	U18MCI1012 Mathematical Foundation for Machine Learning	Introduction to Machine Learning	https://nptel.ac.in/courses/106106139
13.	U18MCI1013 Artificial Intelligence and Applications	An Introduction to Artificial Intelligence	https://nptel.ac.in/courses/106102220
14.	U18MCI1014 Wireless and Cellular Communications	Optical Wireless Communications for Beyond 5G Networks and IoT	https://nptel.ac.in/courses/108106190
15.	U18MCI1015 Fiber Optic Communications	Optical Engineering	https://nptel.ac.in/courses/108106161
16.	U18MCI1016 Digital Image Processing	-	-
17.	U18MCI1017 VLSI Design	CMOS Digital VLSI Design	https://nptel.ac.in/courses/108107129
18.	U18MCI1018 Biomedical Instrumentation	-	-

Professional Electives: B.Tech VI & VIII Sem

S. No	Sem	PE	Professional Electives/ MOOCs	Equivalent SWAYAM - MOOC course	ONLINE COURSE LINK
1.	VI	PE-II	U18CI 603A: Antennas and Wave Propagation	U18CI 603M: Antennas	https://onlinecourses.nptel.ac.in/noc22_ee22/preview
			U18CI 603B: Wireless Sensor Networks and Applications	-	-
			U18CI 603C: Biomedical Instrumentation	-	-
			<i>Other Equivalent MOOC course in EVEN semester</i>	U18CI 603M: Fuzzy sets, logic & Systems and Applications	https://onlinecourses.nptel.ac.in/noc22_ee21/preview
				U18CI 603M: Fundamentals of MIMO wireless	https://onlinecourses.nptel.ac.in/noc22_ee65/preview

				communication	
2.	VIII	PE-V	U18CI801A: IoT Industrial Applications	U18CI801M: Introduction to Industry 4.0 and Industrial Internet of Things	https://onlinecourses.nptel.ac.in/noc22_cs52/preview
			U18CI801B: Satellite communications	-	-
			U18CI801C: Cyber Security	-	-
			<i>Other Equivalent MOOC course in EVEN semester</i>	U18CI801M: VLSI Signal Processing	https://onlinecourses.nptel.ac.in/noc22_ee57/preview
				U18CI801M: Computer Vision and Image - Fundamentals and Applications	https://onlinecourses.nptel.ac.in/noc22_ee48/preview
3.	VIII	PE-VI	U18 CI802A: Cloud Computing	U18CI802M: Cloud Computing	https://onlinecourses.nptel.ac.in/noc22_cs20/preview
			U18CI802B: Mobile and Wireless Networks	-	-
			U18CI802C: Robotics	U18CI802M: Robotics	https://onlinecourses.nptel.ac.in/noc21_me76/preview
			<i>Other Equivalent MOOC course in EVEN semester</i>	U18CI802M: Optical fiber sensors	https://onlinecourses.nptel.ac.in/noc22_ee67/preview
				U18CI802M: Deep learning	https://onlinecourses.nptel.ac.in/noc22_cs22/preview

Self Learning Mode- B.Tech (ECI):

Professional Elective-V (offered by Department)		SWAYAM-NPTEL Equivalent Course	ONLINE COURSE LINK	Professional Elective-V (offered by Department)	SWAYAM-NPTEL Equivalent Course	ONLINE COURSE LINK
U18CI80A	IoT Industrial Applications	Introduction To Internet Of Things	https://nptel.ac.in/courses/106105166	U18CI802A	Cloud Computing	https://nptel.ac.in/courses/106105167
U18CI80B	Satellite communications	-	-	U18CI802B	Mobile and Wireless Networks	-
U18CI80C	Cyber Security	Foundations of Cyber Physical Systems	https://nptel.ac.in/courses/106105241	U18CI802C	Robotics	https://nptel.ac.in/courses/112104316
MOOCs-V: U18CI801M SWAYAM - MOOC course	(i) VLSI Signal Processing	(i) VLSI Signal Processing	https://nptel.ac.in/courses/108105157	MOOCs-VI: U18CI802M SWAYAM - MOOC course	i. Optical fibersensors	https://nptel.ac.in/courses/108106161
	(ii) Computer Vision and Image - Fundamentals and Applications	(ii) Computer Vision and Image Processing - Fundamentals and Applications	https://nptel.ac.in/courses/108103174		ii. Deep learning	https://nptel.ac.in/courses/106106184

Acceleration Programme -B.Tech (ECI):

Professional Elective-V: (offered by department)		SWAYAM - NPTEL Equivalent course	ONLINE COURSE LINK	Professional Elective- VI: (offered by department)		SWAYAM - NPTEL Equivalent course	ONLINE COURSE LINK
U18CI801A:	IoT Industrial Applications	Introduction To Internet Of Things	https://nptel.ac.in/courses/106105166	U18CI802A:	Cloud Computing	Cloud Computing	https://nptel.ac.in/courses/106105167
U18CI801B:	Low Power VLSI Design	VLSI Interconnects	-	U18CI802B:	Mobile and Wireless Networks	-	-
U18CI801C:	FPGA Design	-	-	U18CI802C:	Robotics	Advanced Robotics	https://nptel.ac.in/courses/112104316
-	-	-	-	-	-	-	-
MOOCs-V: U18CI801M SWAYAM -MOOC course		(i) VLSI Signal Processing	https://nptel.ac.in/courses/108105157	MOOCs-VI: U18CI802M SWAYAM -MOOC course		Optical fiber sensors	https://nptel.ac.in/courses/108106161
		(ii) Computer Vision and Image - Fundamentals and Applications	https://nptel.ac.in/courses/108103174			Deep learning	https://nptel.ac.in/courses/106106184

Sd/-
Programme Head, ECI

Sd/-
Head, Dept. of ECE

Copy to:

1. The Dean AA
2. The Institute MOOCs Coordinator
3. For Posting in website department page
4. ECED-ECI Stack file (HMP/MOOCs)