ELECTRONICS AND COMMUNICATION ENGINEERING

Electronics and Communication Engineering department is offering **"Honours"** and **"Additional Minor Engineering"** degree under the following rules and eligibility criteria.

Students, who have taken admission on or after 2018-19 academic year, will be eligible to get Under Graduate Degree with **"Honours"** or **"Additional Minor Engineering",** if he/she completes an additional 20 credits through MOOCs/NPTEL/Coursera/ any other on-line courses apart from 160 academic credits.

INSTRUCTIONS FOR MINOR OR HONOURS DEGREE:

1. For **Additional Minor Engineering,** a student has to earn at least twenty (20) Additional credits from professional courses.

2. A Student can choose the courses which were not studied earlier in the previous semester. Further the courses should not be present in the curriculum of the forthcoming semesters.

3. For "Additional Minor Engineering", a student has to earn additional credits from their discipline.

4. Credits for 4 weeks course is 1, for 8 weeks course is 2, for 12 weeks courseis 3.

5. A student must ensure that he/she shall earn these additional credits before the completion of the regular course.

6. It is the student's responsibility for registering the courses through ONLINEand the required registration fee shall be borne by the respective student.

7. Students have to register for the courses with the approval of Head of theDepartment.

8. A student is eligible to opt either for **"Honours"** or **"Additional MinorEngineering", not eligible for the both**.

NPTEL EQUIVALENT COURSES FOR MINOR DEGREE 2021-2022 (July – December)

Date: 17-05-2021

<u>**Honors Degree**</u>

The Tentative list of courses for Honors Degree approved by Electronics and communication Engineering Department BoS members are as follows:

NPTEL/ COURSERA EQUIVALENT COURSES:

Sno	Course Code	Course Name	Institute	Credits	Duration	Start date	Exam date	Nptel/Coursera links
1	noc21-ee82	Applied Electromagnetics For Engineers	IITK	3	12 Weeks	July 26, 2021	October 15, 2021	https://nptel.ac.in/courses/108/104/108104099/
2	noc21-ee108	Principles and Techniques of Modern Radar Systems	IITKGP	3	12 Weeks	July 26, 2021	October 15, 2021	https://nptel.ac.in/courses/108/105/108105154/
3	noc21-ee111	Advanced Microwave Guided-Structures and Analysis	IITKGP	3	12 Weeks	July 26, 2021	October 15, 2021	https://onlinecourses.nptel.ac.in/noc21_ee111/preview
4	CN	Fundamentals of Network Communication	University of Colorado	1.25	5 Weeks	Considered from registered Date		https://www.coursera.org/learn/fundamentals-network-communications
5	CN	Peer-to-Peer Protocols and Local Area Networks	University of Colorado	1.25	5 Weeks	Considered from registered Date		https://www.coursera.org/learn/peer-to-peer-protocols-local-area-networks

Sno	Course Code	Course Name	Institute	Credits	Duration	Start date	Exam date	Nptel/Coursera links
6	CN	Packet Switching Networks and Algorithms	University of Colorado	1.25	5 Weeks	Considered from registered Date		https://www.coursera.org/learn/packet-switching-networks-algorithms
`7	20CSMCS21	Introduction to Industry 4.0 and Industrial Internet of Things	IITKGP	3	12 Weeks	July 26, 2021	October 23, 2021	https://onlinecourses.nptel.ac.in/noc21_cs66/preview
8	20CSMIOT18	Introduction and programming with IoT Boards	Korea university	1.25	5 Weeks	-	-	https://www.coursera.org/learn/introduction-iot-boards
9	ECEA 5317	Real-Time Mission-Critical Systems Design	University of Colorado Boulder	1	4 Weeks			https://www.coursera.org/learn/real-time-mission-critical-systems-design?specialization=real-time-embedded-systems
10	ECEA 5318	Real-Time Project for Embedded Systems	University of Colorado Boulder	1	4 Weeks			https://www.coursera.org/learn/real-time-project-embedded-systems?specialization=real-time-embedded-systems
11	IOT	The Arduino Platform and C Programming	University of California	1	4 Weeks			https://www.coursera.org/learn/arduino-platform?specialization=iot
12	IOT	Interfacing with the Arduino	University of California	1	4 Weeks			https://www.coursera.org/learn/interface-with-arduino

Sno	Course Code	Course Name	Institute	Credits	Duration	Start date	Exam date	Nptel/Coursera links
13	CC	Cloud Computing Concepts, Part 1	University of Illinois at Urbana-Champaign	1.25	5 Weeks			https://www.coursera.org/learn/cloud-computing?specialization=cloud-computing
14	CC	Cloud Computing Concepts, Part 2	University of Illinois at Urbana-Champaign	1.25	5 Weeks			https://www.coursera.org/learn/cloud-computing-2?specialization=cloud-computing
15	noc21-ee102	Signal Processing for mm Wave communication for 5G and beyond	IITKGP	3	12 Weeks	July 26, 2021	October 15, 2021	https://onlinecourses.nptel.ac.in/noc21_ee102/preview
16	noc21-ee76	Millimeter Wave Technology	IITKGP	2	8 Weeks	September 17, 2021	September 26, 2021	https://nptel.ac.in/courses/117/105/117105139/
17	noc21-ee90	Enclosure design of electronics equipment	IISc	3	12 Weeks	October 15, 2021	October 24, 2021	https://nptel.ac.in/courses/117108140/
18	noc21-ee97	System Design Through VERILOG	IITG	2	8 Weeks	September 17, 2021	September 26, 2021	https://onlinecourses.nptel.ac.in/noc21_ee97/preview
19	noc21-ee98	Integrated Photonics Devices and Circuits	IITM	3	12 weeks	October 15, 2021	October 24, 2021	https://onlinecourses.nptel.ac.in/noc21_ee97/preview
20	ECEA 5362	FPGA Softcore Processors and IP Acquisition	University of Colorado Boulder	1	4 weeks	Considered from registered Date		https://www.coursera.org/learn/fpga-softcore-proccessors-ip
21	ECEA 5361	Hardware Description Languages for FPGA Design	University of Colorado Boulder	1	4 weeks	Considered from registered Date		https://www.coursera.org/learn/fpga-hardware-description-languages?specialization=fpga-design
22	ECEA 5363	FPGA Capstone: Building FPGA Projects	University of Colorado Boulder	1	4 weeks	Considered from registered Date		https://www.coursera.org/learn/capstone-fpga-design