



Electrical & Electronics Engineering Department

Electrical & Electronics 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/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 disciplines other than their parent branch only.**
4. Credits for 4 weeks course is-1, for 8 weeks course is-2, for 12 weeks course is-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 ONLINE and 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 the Department.
8. A student is eligible to opt either for “**Honours**” or “**Additional Minor Engineering**”, **but not eligible for the both.**

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)
Department of Electrical & Electronics Engineering

COURSES IDENTIFIED FOR MINORS DEGREE 2022-23 (July-December)

Additional Minor Engineering Degree In

- I. Electric Vehicle**
- II. Renewable Energy**
- III. Sustainable Energy**

Level Credits

Basic 8 to 10 credits

Advanced 10 to 12 credits

Note: Student has to choose the courses at least from any two groups and from each group at most 2 courses only.

subject to approval, from the department

The Tentative list of courses for Additional Minor Degree approved Electrical & Electronics Engineering Department BoS members are as follows:

I. Electric Vehicle

Sl.No	Course Id	Course Code	Course Name	Institute	Credits	Duration	Start date	End date	Exam date	Enrollment End date	Core/Elective	Click here to join the course
1	noc22-ee69	22EE M01	Electromagnetic Theory	IITK	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	Core/Elective	https://onlinecourses.nptel.ac.in/noc22_ee69/preview
2	noc22-ee71	22EE M02	Design of photovoltaic systems	IISc	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ee71/preview
3	noc22-ee73	22EE M03	Principles of Communication Systems - II	IITK	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	Core	https://onlinecourses.nptel.ac.in/noc22_ee73/preview
4	noc22-ee74	22EE M04	Analog Electronic Circuits	IITD	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	Core	https://onlinecourses.nptel.ac.in/noc22_ee74/preview
5	noc22-ee75	22EE M05	Enclosure design of electronics equipment	IISc	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ee75/preview
6	noc22-ee76	22EE M06	Fabrication Techniques for MEMs-based sensors : clinical perspective	IISc	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ee76/preview
7	noc22-ee81	22EE M07	Dc Microgrid and control systems	IITR	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ee81/preview
8	noc22-ee82	22EE M08	Introduction to Smart Grid	IITR	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	Core/Elective	https://onlinecourses.nptel.ac.in/noc22_ee82/preview
9	noc22-ee83	22EE M09	Control engineering	IITM	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	Core	https://onlinecourses.nptel.ac.in/noc22_ee83/preview
10	noc22-ee85	22EE M10	Introduction to Wireless and Cellular Communications	IITM	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ee85/preview
11	noc22-ee93	22EE M11	Basic Electric Circuits	IITK	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	Core	https://onlinecourses.nptel.ac.in/noc22_ee93/preview

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12	noc22-ee94	22EE M12	Fundamentals Of Electric Drives	IITK	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ee94/preview
13	noc22-ee97	22EE M13	Semiconductor Devices and Circuits	IISC	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	Core	https://onlinecourses.nptel.ac.in/noc22_ee97/preview
14	noc22-ee100	22EE M14	Control and Tuning Methods in Switched Mode Power Converters	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ee100/preview
15	noc22-ee110	22EE M15	Digital Circuits	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	Core	https://onlinecourses.nptel.ac.in/noc22_ee110/preview
16	noc22-ee111	22EE M16	Electrical Machines - I	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	Core	https://onlinecourses.nptel.ac.in/noc22_ee111/preview
17	noc22-ee112	22EE M17	Electrical Measurement And Electronic Instruments	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	Core	https://onlinecourses.nptel.ac.in/noc22_ee112/preview
18	noc22-ee117	22EE M18	Digital Speech Processing	IITKGP	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ee117/preview
19	noc22-ee119	22EE M19	Pattern recognition and Application	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ee119/preview
20	noc22-ch66	22EE M20	Hydrogen Energy: Production, Storage, Transportation and Safety	IITB	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ch66/preview
21	noc22-ee124	22EE M21	Digital Control in Switched Mode Power Converters and FPGA-based Prototyping	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ee124/preview

22	noc22-ee127	22EE M22	Advance power electronics and Control	IITR	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	Elective	https://onlinecourses.nptel.ac.in/noc22_ee127/preview
23	noc22-me98	22EE M23	Elements of Solar Energy Conversion	IITK	3	12 Weeks	25-Jul-22	14-Oct-22	30-Oct-22	01-Aug-22	Elective	https://onlinecourses.nptel.ac.in/noc22_me98/preview
24	noc22-ge28	22EE M24	Solar Energy Engineering and Technology	IITG	3	12 Weeks	25-Jul-22	14-Oct-22	29-Oct-22	01-Aug-22	Elective	https://onlinecourses.nptel.ac.in/noc22_ge28/preview
25	noc22-ge29	22EE M25	Fundamentals Of Artificial Intelligence	IITG	3	12 Weeks	25-Jul-22	14-Oct-22	29-Oct-22	01-Aug-22	Elective	https://onlinecourses.nptel.ac.in/noc22_ge29/preview

II. Renewable Energy

Sl.no	Course Id	Course Code	Course Name	Institute	Credits	Duration	Start date	End date	Exam date	Enrollment End date	Click here to join the course
1	noc22-ee71	22EE M01	Design of photovoltaic systems	IISc	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee71/preview
2	noc22-ee74	22EE M02	Analog Electronic Circuits	IITD	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee74/preview
3	noc22-ee75	22EE M03	Enclosure design of electronics equipment	IISc	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee75/preview
4	noc22-ee76	22EE M04	Fabrication Techniques for MEMs-based sensors : clinical perspective	IISc	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee76/preview
5	noc22-ee81	22EE M05	Dc Microgrid and control systems	IITR	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee81/preview

6	noc22-ee82	22EE M06	Introduction to Smart Grid	IITR	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee82/preview
7	noc22-ee83	22EE M07	Control engineering	IITM	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee83/preview
8	noc22-ee93	22EE M08	Basic Electric Circuits	IITK	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee93/preview
9	noc22-ee94	22EE M09	Fundamentals Of Electric Drives	IITK	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee94/preview
10	noc22-ee97	22EE M10	Semiconductor Devices and Circuits	IISC	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee97/preview
11	noc22-ee100	22EE M11	Control and Tuning Methods in Switched Mode Power Converters	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee100/preview
12	noc22-ee110	22EE M12	Digital Circuits	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee110/preview
13	noc22-ee111	22EE M13	Electrical Machines - I	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee111/preview
14	noc22-ee112	22EE M14	Electrical Measurement And Electronic Instruments	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee112/preview
15	noc22-ch66	22EE M15	Hydrogen Energy: Production, Storage, Transportation and Safety	IITB	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ch66/preview

16	noc22-ee124	22EEM16	Digital Control in Switched Mode Power Converters and FPGA-based Prototyping	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee124/preview
17	noc22-ee127	22EEM17	Advance power electronics and Control	IITR	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee127/preview
18	noc22-me98	22EEM18	Elements of Solar Energy Conversion	IITK	3	12 Weeks	25-Jul-22	14-Oct-22	30-Oct-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_me98/preview
19	noc22-ge28	22EEM19	Solar Energy Engineering and Technology	IITG	3	12 Weeks	25-Jul-22	14-Oct-22	29-Oct-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_ge28/preview
20	noc22-ge29	22EEM20	Fundamentals Of Artificial Intelligence	IITG	3	12 Weeks	25-Jul-22	14-Oct-22	29-Oct-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_ge29/preview
21	noc22-ph44	22EEM21	Physics of Renewable Energy Systems	IITKGP	3	12 Weeks	25-Jul-22	14-Oct-22	30-Oct-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_ph44/preview

22	c22-ch38	22EE M22	Technologies For Clean And Renewable Energy Production	IITR	2	8 Weeks	25-Jul-22	16-Sep-22	25-Sep-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_ch38/preview
23	noc22-hs105	22EE M23	Energy Economics And Policy	IIT Mandi	2	8 Weeks	22-Aug-22	14-Oct-22	30-Oct-22	22-Aug-22	https://onlinecourses.nptel.ac.in/noc22_hs105/preview
24	noc22-me104	22EE M24	Energy Conservation And Waste Heat Recovery	IITKGP	3	12 Weeks	25-Jul-22	14-Oct-22	29-Oct-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_me104/preview

III. Sustainable Energy

Sl.no	Course Id	Course Code	Course Name	Institute	Credits	Duration	Start date	End date	Exam date	Enrollment End date	Click here to join the course
1	noc22-ee71	22EE M01	Design of photovoltaic systems	IISc	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee71/preview
2	noc22-ee81	22EE M02	Dc Microgrid and control systems	IITR	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee81/preview
3	noc22-ee82	22EE M03	Introduction to Smart Grid	IITR	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee82/preview
4	noc22-ee83	22EE M04	Control engineering	IITM	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee83/preview
5	noc22-ee93	22EE M05	Basic Electric Circuits	IITK	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee93/preview
6	noc22-ee94	22EE M06	Fundamentals Of Electric Drives	IITK	2	8 Weeks	Jul 25, 2022	Sep 16, 2022	Sep 25, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee94/preview
7	noc22-ee97	22EE M07	Semiconductor Devices and Circuits	IISC	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee97/preview

8	noc22-ee112	22EE M08	Electrical Measurement And Electronic Instruments	IITKGP	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 29, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ee112/preview
9	noc22-ch66	22EE M09	Hydrogen Energy: Production, Storage, Transportation and Safety	IITB	3	12 Weeks	Jul 25, 2022	Oct 14, 2022	Oct 30, 2022	Aug 1, 2022	https://onlinecourses.nptel.ac.in/noc22_ch66/preview
10	noc22-me98	22EE M10	Elements of Solar Energy Conversion	IITK	3	12 Weeks	25-Jul-22	14-Oct-22	30-Oct-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_me98/preview
11	noc22-ge28	22EE M11	Solar Energy Engineering and Technology	IITG	3	12 Weeks	25-Jul-22	14-Oct-22	29-Oct-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_ge28/preview
12	noc22-ge29	22EE M12	Fundamentals Of Artificial Intelligence	IITG	3	12 Weeks	25-Jul-22	14-Oct-22	29-Oct-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_ge29/preview
13	noc22-ph44	22EE M13	Physics of Renewable Energy Systems	IITKGP	3	12 Weeks	25-Jul-22	14-Oct-22	30-Oct-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_ph44/preview
14	nocc22-ch38	22EE M14	Technologies For Clean And Renewable Energy Production	IITR	2	8 Weeks	25-Jul-22	16-Sep-22	25-Sep-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_ch38/preview
15	noc22-hs105	22EE M15	Energy Economics And Policy	IIT Mandi	2	8 Weeks	22-Aug-22	14-Oct-22	30-Oct-22	22-Aug-22	https://onlinecourses.nptel.ac.in/noc22_hs105/preview
16	noc22-me104	22EE M16	Energy Conservation And Waste Heat Recovery	IITKGP	3	12 Weeks	25-Jul-22	14-Oct-22	29-Oct-22	01-Aug-22	https://onlinecourses.nptel.ac.in/noc22_me104/preview

Head, Dept. of EEE