संख्या: CUJ/Acad/04-XXIV/2024/ 341

06 May,2024

Notification /अधिसूचना संख्या 53 /2024

Sub: Course Scheme and Syllabus Notification of 1st to 8th Semesters of Bachelor of Technology-Electronics and Communication Engineering (B.Tech-ECE) w.e.f. Academic Session 2022-23 – Reg.

सभी संबंधितों की जानकारी के लिए यह अधिसूचित किया जाता है कि इलेक्ट्रॉनिक्स और संचार इंजीनियरिंग विभाग के 08.02.2024 को आयोजित बोर्ड ऑफ स्टडीज (बी.ओ.एस.) की सिफारिशों पर, सक्षम प्राधिकारी ने शैक्षणिक सत्र 2022-23 से बैचलर ऑफ टेक्नोलॉजी-इलेक्ट्रॉनिक्स और संचार इंजीनियरिंग (बीटेक-ई.सी.ई.) के प्रथम से आठवें सेमेस्टर की पाठ्यक्रम योजना और पाठ्यक्रम को मंजूरी दे दी है, जोकि इस प्रकार है:

It is hereby notified for the information of all concerned that on the recommendations of 1st Board of Studies (BoS) held on **08.02.2024** of Department of Electronics and Communication Engineering, the Competent Authority has approved the Course Scheme and Syllabus of 1st to 8th Semesters of Bachelor of Technology-Electronics and Communication Engineering (B.Tech-ECE) w.e.f. **Academic Session 2022-23** as detailed below:

Semester-I

Course Code	Course Title	Credits		L	T	P
		L	P			
	Induction Program	0	0	-	-	-
BEECE1C001	Engineering Mathematics-I	4	0	3	1	0
BEECE1C002	Engineering Physics-I	4	1	3	1	2
BEECE1C003	English for Technical Communication	4	0	3	1	0
BEECE1C004	Data Structure using C Programming	4	2	3	1	4
BEECE1C005	Problem Solving and Computer Programming in C	4	1	3	1	2
***	Environmental Studies Course from MOOCs/SWAYAM/NPTEL (Audit Course)	0	0	2	0	0
Total		**24**		**17**	**5**	**8**

*** Code from SWAYAM/NPTEL / Open Elective Course offered by other Department

Semester-II

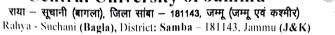| Course Code	Course Title	Credits		L	T	P
		L	P			
BEECE1C007	Engineering Mathematics-II	4	0	3	1	0
BEECE1C008	Data Science	4	0	3	1	0
BEECE1C009	Basic Electronics	4	1	3	1	2
BEECE1C010	Object Oriented Programming using C++	4	2	3	1	4
BEECE1C011	Professional Communication	4	1	3	1	2
***	MOOC course from Swayam/NPTEL/ Open Elective Course offered by Other Department related to **Rights, Responsibilities, Law and Constitution** (Audit Course)	0	0	2	0	0
Total		**24**		**17**	**5**	**8**

*** Code from SWAYAM/NPTEL / Open Elective Course offered by other Department

Note: Mandatory Internship/Apprenticeship: Students will have to take up Internship/Apprenticeship/MOOC Course of 4-6 weeks (40/60 hrs) at industry/organizations of repute/online platforms after 2nd semester that will be accredited in 3rd semester.

Semester-III

Course Code	Course Title	Credits		L	T	P
		L	P			
BEECE2C001	Analog Communication	4	1	3	1	2
BEECE2C002	Python Programming	3	2	2	1	4
BEECE2C003	Analog Electronic Circuits	3	0	3	0	0
BEECE2C004	Engineering Graphics	1	3	1	0	6
BEECE2C005	Basic Electrical Engineering	4	1	3	1	2
BEECE2C006	Project Phase-I/Internship /Apprenticeship	0	3	0	0	6
***	MOOC course from Swayam/NPTEL/ Open Elective Course offered by Other Department related to **Indian Knowledge Systems** (Audit Course)	0	0	2	-	-
	Total	25		14	3	18

Semester-IV

Course Code	Course Title	Credits		L	T	P
		L	P			
BEECE2C009	Database Management System	4	0	4	0	0
BEECE2C010	Introduction to Machine Learning	3	1	3	0	2
BEECE2C011	Digital Electronics	3	1	3	0	2
BEECE2C012	Digital Communication	3	0	3	0	0
BEECE2C013	Control System	3	0	3	0	0
BEECE2C014	Signals and Systems	3	0	3	0	0
BEECE2C015	Innovation and Entrepreneurship	1	0	1	0	0
BEECE2C016	Project Phase-III	0	1	0	0	2
	Total	23		20	0	6

Note: Mandatory Internship/Apprenticeship/Project: Students will have to take up Project/Internship/Apprenticeship/MOOC Course of 4-6 weeks (40/60 hrs) at industry/organizations of repute/online platforms after 4th semester that will be accredited in 5th semester.

Semester-V

Course Code	Course Title	Credits		L	T	P
		L	P			
BEECE3C001	Internet of Things	3	1	3	0	2
BEECE3C002	Network Analysis and Synthesis	4	0	3	1	0
BEECE3C003	Electro Magnetic Field Theory	4	0	3	1	0
BEECE3C004	VLSI Design	3	0	3	0	0
BEECE3C005	Computer Networks and Data Communication	3	0	3	0	0
BEECE2C006	Digital Signal Processing	3	1	3	0	2
BEECE3C007	Internship/ Training /Project Phase-IV	0	1	0	0	2
***	MOOC course from Swayam/NPTEL/ Open Elective Course offered by Other Department related to **Industrial Economics** (Audit Course)	0	0	2	0	0

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Semester-VI

Course Code	Course Title	Credits		L	T	P
		L	P			
BEECE3C009	Deep Learning	2	1	2	0	2
BEECE3C010	RF and Microwave	3	1	3	0	2
BEECE3C011	Block Chain	3	0	3	0	0
BEECE3C012	Big Data Analysis	3	0	3	0	0
BEECE3C013	Cyber Physical System	3	0	3	0	0
BEECE3C014	Advanced 5G/6G Wireless Networks	3	0	3	0	0
BEECE3C015	Project Phase-V	0	1	0	0	2
BEECE3C016	Project/Internship**	0	0	0	0	0
Total		**20**		**17**	**0**	**6**

** Grades will be awarded in the successive semester
Mandatory Internship/Apprenticeship: Students will have to take up Internship/Apprenticeship/MOOC Course of 4-6 weeks (40/60 hrs) at industry/organizations of repute/online platforms after 6th semester that will be accredited in 7th semester.

Semester-VII

Course Code	Course Title	Credits		L	T	P
		L	P			
BEECE4C001	Optical Communication	3	1	3	0	2
#	Department Elective-I	3	0	3	0	0
#	Department Elective-II	3	0	3	0	0
#	Open Elective Course-I**	3	0	3	0	0
BEECE4C002	Project Phase-VI	0	2	0	0	4
BEECE3C016	Project/Internship	0	2	0	0	4
Total		**17**		**12**	**0**	**10**

**Refer Table-II

Semester-VIII

Course Code	Course Title	Credits		L	T	P
		L	P			
BEECE4C003	Major Project/ Internship	0	12	0	0	24
Total		**12**		**0**	**0**	**24**

Note: Department may offer maximum 8 credit courses via SWAYAM mode in any semester
Department is offering Minor Degree in
   (a) Semiconductor and Microelectronics
   (b) Cyber Security
   (c) Space Technology
Minor Degree will carry 18 to 20 credits in addition to the credits essential for obtaining the Under Graduate Degree in Major Discipline

Table-I		Credits		L	T	P
Department Electives (DEL-I) any one will be offered		L	P			
Course Code	**Course Title**					
BEECE0D001	Digital Forensic and Cyber Security	3	0	3	0	0
BEECE0D002	Drone Technology	3	0	3	0	0
BEECE0D003	Antenna and Wave Propagation	3	0	3	0	0
Department Electives (DEL-II) any one will be offered						
BEECE0D004	Wireless Networks & Security Issues.	3	0	3	0	0
BEECE0D010	Advanced Functional Verification with Universal Verification Methodology	3	0	3	0	0
BEECE0D011	Statistical Signal Processing	3	0	3	0	0
BEECE0D012	Remote Sensing and GIS	3	0	3	0	0
BEECE0D006	Nano Satellite and Ground Station Management	3	0	3	0	0
BEECE0D013	ASIC Verification	3	0	3	0	0
BEECE0D014	Microprocessor Architecture	3	0	3	0	0
BEECE0D015	LTE and 5G Communication	3	0	3	0	0
BEECE0D008	Quantum Computing	3	0	3	0	0
Table-II						
Open Electives (OEL-I) any two will be offered						
Course Code	**Course Title**					
BEECE0O004	Signal Processing and Machine Learning	3	0	3	0	0
BEECE0O005	Biomedical Signal Processing	3	0	3	0	0
BEECE0O006	Advance Antenna Design	3	0	3	0	0
BEECE0O007	Cyber Security	3	0	3	0	0
BEECE0O008	RF MEMS	3	0	3	0	0
BEECE0O009	Industrial and Biomedical Applications of RF Energy	3	0	3	0	0
BEECE0O010	Communication System	3	0	3	0	0
BEECE0O011	Fundamentals of Wireless Networks	3	0	3	0	0
BEECE0O012	Industrial IoT 5.0	3	0	3	0	0
BEECE0O013	Basic PCB Fabrication	3	0	3	0	0
BEECE0O014	Electrical Vehicle Design and Modeling	3	0	3	0	0
BEECE0O015	Under Water Communication and Free Space Optics	3	0	3	0	0
BEECE0O019	Industrial Automation with PLC and Logic Design	3	0	3	0	0
BEECE0O017	Silicon On Chip (SOC)	3	0	3	0	0
BEECE0O018	Semiconductor Device Technology	3	0	3	0	0

06/05/24

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