संख्या: CUJ/Acad/04-XXV/2024/ 353   08 May, 2024

Notification /अधिसूचना संख्या 62 /2024

Sub: Course Scheme and Syllabus Notification of 1st to 8th Semesters of Bachelor of Technology-Electronics and Communication Engineering (Avionics) (B.Tech-ECE(Avionics)) w.e.f. Academic Session 2023-24 – 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 2023-24 में बैचलर ऑफ टेक्नोलॉजी-इलेक्ट्रॉनिक्स और संचार इंजीनियरिंग(एवियोनिक्स) (बीटेक-ई.सी.ई. (एवियोनिक्स)) 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 (Avionics) (B.Tech-ECE(Avionics)) w.e.f. Academic Session 2023-24 as detailed below:

Semester-I

Course Code	Course Title	Credits		L	T	P
		L	P			
	Induction Program	-	-	-	-	-
BEECA1C001	Engineering Mathematics-I	4	0	3	1	0
BEECA1C002	Engineering Physics-I	4	1	3	1	2
BEECA1C003	English for Technical Communication	4	0	3	1	0
BEECA1C004	Data Structure using C Programming	4	2	3	1	4
BEECA1C005	Problem Solving and Computer Programming in C	4	1	3	1	2
BEECA1C006	Environmental Studies* Course from SWAYAM(Audit Course)	0	0	2	0	0
	Total	**24**		**17**	**5**	**8**

Semester-II

Course Code	Course Title	Credits		L	T	P
		L	P			
BEECA1C007	Engineering Mathematics-II	4	0	4	0	0
BEECA1C008	Data Science	3	0	3	0	0
BEECA1C009	Basic Electronics	3	1	3	0	2
BEECA1C014	Introduction to MATLAB	2	2	2	0	4
BEECA1C011	Professional Communication	3	1	3	0	2
BEECA1C013	Project Phase-I	0	2	0	0	4
****	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	**22**		**17**	**0**	**12**

*** 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			
BEECA2C001	Analog Communication	4	1	3	1	2
BEECA2C002	Python Programming	3	2	2	1	4
BEECA2C003	Introduction to Aerospace Engineering	3	0	3	0	0
BEECA2C004	Engineering Graphics	1	3	1	0	6
BEECA2C005	Basic Electrical Engineering	4	1	3	1	2
BEECA2C006	Project Phase-I/Internship /Apprenticeship	0	2	0	0	4
***	MOOC course from Swayam/NPTEL/ Open Elective Course offered by Other Department related to **Indian Knowledge Systems** (Audit Course)	0	0	2	0	0
Total		24		14	3	18

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

Semester-IV

Course Code	Course Title	Credits		L	T	P
		L	P			
BEECA2C009	Introduction to Space Technology	4	0	4	0	0
BEECA2C010	Introduction to Machine Learning	3	1	3	0	2
BEECA2C011	Digital Electronics	3	1	3	0	2
BEECA2C012	Digital Communication	3	1	3	0	2
BEECA2C013	Control System	3	0	3	0	0
BEECA2C014	Signals and Systems	3	0	3	0	0
BEECA2C015	Innovation and Entrepreneurship	1	0	1	0	0
BEECA2C016	Project Phase-III	0	1	0	0	2
Total		24		20	0	8

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
BEECE3C003	Electro Magnetic Field Theory	4	0	3	1	0
BEECE3C002	Network Analysis and Synthesis	4	0	3	1	0
BEECA3C004	Material Science and Metallurgy	3	0	3	0	0
BEECE3C005	Computer Networks and Data Communication	3	0	3	0	0
BEECE3C006	Digital Signal Processing	3	1	3	0	2
BEECA3C007	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
Total			23	20	2	6

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

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
BEECA3C001	Power Electronics	3	1	3	0	2
BEECA3C002	Navigation System and sensors	3	0	3	0	0
BEECE3C013	Cyber Physical System	3	0	3	0	0
BEECE3C014	Advanced 5G/6G Wireless Networks	3	1	3	0	2
BEECA3C015	Project Phase-V	0	1	0	0	2
BEECA3C016	Project/Internship**	0	0	0	0	0
Total		22		17	0	10

** 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			
BEECA4C001	Satellite and 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
BEECA4C002	Project Phase-VI	0	2	0	0	4
BEECA3C016	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			
BEECA4C003	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	RF and Microwave	3	0	3	0	0
Department Electives (DEL-II) any one will be offered						
BEECE0D004	Wireless Networks & Security Issues.	3	0	3	0	0
BEECA0D005	Satellite Communication	3	0	3	0	0
BEECE0D006	Nano Satellite and Ground Station Management	3	0	3	0	0
BEECA0D007	Antenna and Wave Propagation	3	0	3	0	0
BEECE0D008	Quantum Computing	3	0	3	0	0
BEECA0D009	Advanced Sensors and Interface Electronics	3	0	3	0	0
Table-II						
Open Electives (OEL-I) any two will be offered						
Course Code	Course Title					
BEECA0O001	Computer Organization and Architecture	3	0	3	0	0
BEECA0O002	Embedded System and Microcontroller	3	0	3	0	0
BEECA0O003	Operating System	3	0	3	0	0
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
BEECE0O016	Introduction to Aeronautical Engineering	3	0	3	0	0
BEECE0O017	Silicon on Chip (SoC)	3	0	3	0	0
BEECE0O018	Semiconductor Device Technology	3	0	3	0	0
BEECA0O019	Guidance System	3	0	3	0	0
BEECA0O020	Introduction to Computer Vision	3	0	3	0	0

08/05/24

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