

SREE BUDDHA

COLLEGE OF ENGINEERING, PATTOOR

(AUTONOMOUS)

(Affiliated to APJAK Technological University, Kerala)

Curriculum (2024) B.Tech-Semester I to VIII

Electronics & Computer Engineering
Branch Code: ER
(Group B)



Note

This curriculum adheres to the syllabus prescribed by APJ Abdul Kalam Technological University for the academic year 2024. All courses, credits, and evaluation criteria are implemented as per the regulations and guidelines issued by the university.

The institution ensures full compliance with the university's curriculum framework, ensuring quality education aligned with its standards.



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Chairman

Academic Council
CHAIRMAN
ACADEMIC COUNCIL
SREE BUDDHA COLLEGE OF ENGINEERING
PATTOOR, (AUTONOMOUS), NOORANAD
ALAPPUZHA-690529

					FIRST SEMESTER (July-December):	Gro	oup	В						
					10 Days Compulsory Induction Program	an	d U	HV	7					
SI N	Slot	Course Code	Course Type	Course Category	Course Title	S	Cro tru			ss		otal arks	Credits	Hrs./ Wee
O:	5	Code	Cour	Co	(Course Name)	L	T	P	R		CIA	ESE		k
1	A	G <mark>Y</mark> MAT101	BSC	GC	Mathematics for Electrical Science-1	3	0	0	0	4.5	40	60	3	3
2	B S1/	GBPHT121	BSC	GC	Physics for Electrical Science	3	0	2	0	5.5	40	60	4	5
2	S1/ S2	GXCYT122	ВЗС	GC	Chemistry for Electrical Science]	U		U	3.3	40	00	_	3
3	С	GMEST103	ESC	GC	Engineering Graphics and Computer Aided Drawing.	2	0	2	0	4	40	60	3	4
4	D	GXEST104	ESC	GC	Introduction to Electrical & Electronics Engineering (part 1: Electrical Engineering)	2	0	0	0	3	20	30	2+2=4	4
					(Part 2: Electronics Engineering)	2	0	0	0	3	20	30		
5	F	UCEST105	ESC	UC	Algorithmic Thinking with Python	3	0	2	0	5.5	40	60	4	5
6	L	GXESL106	ESC	GC	Basic Electrical and Electronics Engineering Workshop	0	0	2	0	1	50	50	1	2
7	I*	UCHWT127	HWP		Health and Wellness	1	0	1	0	0	50	0	,	2/2
7	S1/ S2	UCHUT128	НМС	UC	Life Skills and Professional Communication	2	0	1	0	3.5	100	0	1	2/3
8	S ₁ / S ₂	UCSEM129	SEC	UC	Skill Enhancement Course: Digital 101(NASSCOM)		MC	OC	2	2			-	
					Total					30/ 32			20	25/ 26
		Brid	lge C	ourse (Mathematics or Introduction to Computer S	cien	ce)	*:	,	Total	15 H	rs.		

^{*}Valuation for HMC courses will be done at college level, Question papers will be provided by the University.

- ➤ L-T-P-R: Lecture-Tutorial-Practical-Project
- ➤ SS (Self Study) Hours= 1.5L+0.5 T+0.5P+R
- > CIA: Continuous Internal Assessment, ESE: End Semester Examination

	Digital 101 (NASSCOM)	
Sl.	Technologies Covered	Hours
No:		
1	Artificial intelligence and Big Data Analytics (AI/BDA)	11
2	Internet of Things (IoT)	2.5
3	Cyber Security	2.5
4	Block Chain	2.5
5	Robotic Process Automation	1.5
6	Augmented Reality and Virtual Reality (AR and VR)	2.5
7	Cloud Computing	2.5
8	3 D Printing and Modelling	2
9	Web, Mobile Dev and Marketing	2
10	Responsible AI	1
	Total Hours	30

Note: Physics, Chemistry, Health and Wellness and Life skill and Professional Communication shall be offered in both S1 and S2.

^{*}No Grade Points will be awarded for the MOOC course and I slot course.

Institutions can advise students belonging to about 50% of the number of branches in the Institution to opt for Physics/ Health and Wellness in SI and Chemistry/ Life Skills and Professional Communication in S2 & vice versa.

					SECOND SEMESTER (January-June):	Gr	ouj	B						
SI N	Slot	Course Code	se Type	Course	Course Title	S	Cr tru			ss		otal arks	Credits	Hrs./ Wee
0:		Coue	Course	Cc Cat	(Course Name)	L	T	P	R		CIA	ESE		k
1	A	GYMAT201	BSC	GC	Mathematics for Electrical Science-2	3	0	0	0	4.5	40	60	3	3
2	B S1/	GBPHT121	BSC	GC	Physics for Electrical Science	3	0	2	0	5.5	40	60	4	5
-	S2	GXCYT122	Doc	GC	Chemistry for Electrical Science			_		3.5	40	00	-	
3	С	GXEST203	ESC		Foundations of Computing: From Hardware Essentials to Web Design	3	0	0	0	4.5	40	60	3	3
4	D	GXEST204	ESC	GC	Programming in C	3	0	2	0	5.5	40	60	4	5
5	Е	PCERT205	PC	PC	Digital Electronics	3	1	0	0	5	40	60	4	4
6	F	UCEST206	ESC	UC	Engineering Entrepreneurship & IPR	3	0	0	0	4.5	60	40	3	3
_	I*	UCHWT127	HWP		Health and Wellness	1	0	1	0	0	50	0]	
7	S1/ S2	UCHUT128	НМС	UC	Life Skills and Professional Communication	2	0	1	0	3.5	100	0	1	2/3
8	L	GXESL208	ESC	GC	IT Workshop	0	0	2	0	1	50	50	1	2
	S ₁ / S ₂	UCSEM129	SEC		Skill Enhancement Course: Digital 101(NASSCOM)		MC	OC	,				1	
					Total					34			24	27/ 28

*No Grade Points will be awarded for the MOOC course and I slot course.

Skill Enhancement Course: Digital 101 is an introductory Massive Open Online Course (MOOC) offered by NASSCOM. It is designed to provide students with foundational knowledge and skills in digital technologies, preparing them for further studies and careers in the digital domain. By incorporating the Digital 101 course into the curriculum, KTU ensures that all students gain valuable digital skills early in their academic journey, enhancing their readiness for advanced courses and future careers in technology.

Course Registration and Completion:

- Students have the flexibility to register and complete the Digital 101 course either in their first semester (S1) or second semester (S2).
- The credit for this course (1 credit) will be officially recorded in the second semester grade card.

					THIRD SEMESTER (July-Decem	ıber)								
S l N	Slot	Course Code	Course Type	Course Category	Course Title		Cre		e	S	Total Marks		Credi	Hrs ./
o :	S ₂	Code	Co	Co	(Course Name)	L	Т	P	R	S	CI A	ES E	ts	We ek
1	A	GYMAT301	BSC	GC	Mathematics for Electrical Science-3	3	0	0	0	4. 5	40	60	3	3
2	В	PCERT302	PC	PC	Data Structures	3	1	0	0	5	40	60	4	4
3	С	PCERT303	PC	PC	Digital System Design Using Verilog	3	1	0	0	5	40	60	4	4
4	D	PBERT304	PC- PBL	PB	Electronic Devices and Circuits	3	0	0	1	5. 5	60	40	4	4
5	F	GNEST305	ESC	GC	Introduction to Artificial Intelligence and Data Science	3	1	0		5	40	60	4	4
	G	UCHUT346			Economics for Engineers									
6	S3/ S4	UCHUT347	HM C	UC	Engineering Ethics and Sustainable Development	2	0	0	0	3	50	50	2	2
7	L	PCERL307	PCL	PC	Data Structures Lab	0	0	3	0	1. 5	50	50	2	3
8	Q	PCERL308	PCL	PC	Digital System Design Lab	0	0	3	0	1. 5	50	50	2	3
9	R/ M		VAC		Remedial/Minor Course	3	1	0	0	5			4*	4*
	•				Total		•			31/ 36			25/29	27/3 1*
]	Bridge (Course for Lateral Entry Students:	Tota	l 15	Hr	s.					

					FOURTH SEMESTER (January-J	une)								
S l	ot	Course	Туре	rse gory	Course Title		Cree		,	a a	To Ma		Credi	Hrs./
N 0 :	Slot	Code	Course Type	Course Category	(Course Name)	L	Т	P	R	SS	CI A	E S E	ts	Week
1	Α	GBMAT401	BSC	GC	Mathematics for Electrical Science-4	3	0	0	0	4.5	40	60	3	3
2	В	PCERT402	PC	PC	Computer Organization and Architecture	3	1	0	0	5	40	60	4	4
3	C	PCERT403	PC	PC	Computer Networks	3	1	0	0	5	40	60	4	4
4	D	PBERT404	PC- PBL	PB	Integrated Circuits	3	0	0	1	5.5	60	40	4	4
5	Е	PEERT41N	PE	PE	PE-1	3	0	0	0	4.5	40	60	3	3
	G	UCHUT346			Economics for Engineers									
6	S3 /S 4	UCHUT347	HM C	UC	Engineering Ethics and Sustainable Development	2	0	0	0	3	50	50	2	2
7	L	PCERL407	PCL	PC	Computer Networking Lab	0	0	3	0	1.5	50	50	2	3
8	Q	PCERL408	PCL	PC	Integrated Circuits Lab	0	0	3	0	1.5	50	50	2	3
9	R/ M/ H		VAC		Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
					Total					31/ 36			24/ 28*	26/ 30*

Note: Economics for Engineers and Engineering Ethics and Sustainable Development shall be offered in both S3 and S4. Institutions can advise students belonging to about 50% of the number of branches in the Institution to opt for Economics for Engineers in S3 and Engineering Ethics & Sustainable Development in S4 and vice versa.

PROGRAM ELECTIVE I: PEERT 41N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
	PEERT 411	Communication Engineering	3-0-0-0		3
	PEERT 412	Basic VLSI Design	3-0-0-0		3
	PEERT 413	Biomedical Signals and Transducers	3-0-0-0		3
E	PEERT 414	Foundations of Machine Learning	3-0-0-0	3	3
	PEERT 416	Object Oriented Programming Using Java	3-0-0-0		3
	PEERT 415	Java Programming & Application development	3-0-0-0		5/3

Note: Level 5 courses in the B. Tech curriculum carry a total of 5 credits, consisting of 3 credits for the Programme Elective and 2 additional credits. The additional 2 credits shall be awarded only if the student meets the eligibility conditions specified in the B. Tech. -2024 regulations. If those conditions are not fulfilled, the student will receive only 3 credits for the course.

					FIFTH SEMESTER (July-Decem	ıber)							
S l	Slot	Course	Course Type	Course Category	Course Title			edit ctui		SS		tal rks	Cr edi	Hrs./
N o :	S	Code	Cours	Cou Cate	(Course Name)	L	Т	P	R	55	CI A	E S E	ts	Week
1	A	PCERT501	PC	PC	Digital Signal Processing	3	1	0	0	5	40	60	4	4
2	В	PCERT502	PC	PC	Theory of Computation	3	1	0	0	5	40	60	4	4
3	С	PCERT503	PC	PC	Microcontrollers and Interfacing	3	0	0	0	4.5	40	60	3	3
4	D	PBERT504	PC- PB L	РВ	Database Management Systems	3	0	0	1	5.5	60	40	4	4
5	Е	PEERT52N	PE	PE	PE-2	3	0	0	0	4.5	40	60	3	3
6	I*	UCHUM506	HM C	UC	Constitution of India (MOOC)	-	-	-	-	2	-	-	1	-
7	L	PCERL507	PC L	PC	Digital Signal Processing Lab	0	0	3	0	1.5	50	50	2	3
8	Q	PCERL508	PC L	PC	Database Management Systems Lab	0	0	3	0	1.5	50	50	2	3
9	R/ M /H		VAC		Remedial/Minor/Honours Course	3	1	0	0	5			4*	4*
	S ₅ / S ₆	Industrial	Visit (1		um 12 Days are permitted, Not Exceeding orking Days) /Industrial Training	more	tha	an 6						
					Total					30/ 35			23/ 27 *	24/28

^{*}No Grade Points will be awarded for the MOOC course and I slot course.

Industrial Training:

Students who are not participating in the industrial visit must attend industrial training during that period.

PROGRAM ELECTIVE 2: PEERT 52N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
	PEERT 521	Wireless Sensor Networks	3-0-0-0		3
	PEERT 522	CMOS VLSI Design	3-0-0-0		3
	PEECT 523	Sensors and Actuators	3-0-0-0		3
E	PEERT 524	Cloud Computing	3-0-0-0	3	3
	PEERT 526	Python for Machine Learning	3-0-0-0		3
	PEERT 525	Computational Fundamentals for Machine Learning	3-0-0-0		5/3

					SIXTH SEMESTER (January-	Ju	ne`)						
S 1 N	Slot	Course Code	Course Type	Course Category	Course Title (Course Name)		Cre true	edit		SS		otal arks ES E	Cre dits	Hrs/ Week
:			_											
1	A	PCERT601	PC	PC	Operating Systems	3	1	0	0	5	40	60	4	4
2	В	PCERT602	PC	PC	Data Communication and Networking	3	0	0	0	4.5	40	60	3	3
3	С	PEERT63N	PE	PE	PE-3	3	0	0	0	4.5	40	60	3	3
4	D	PBERT604	PC- PB L	PB	Embedded Systems and IoT	3	0	0	1	5.5	60	40	4	4
5	F	GYEST605	ES C	GC	Design Thinking and Product Development (Group Specific Syllabus)	2	0	0	0	3	40	60	2	2
6	О	OEERT61 N /IEERT61 N	OE/ ILE	OE/I E	OE/ILE-1	3	0	0	0	4.5	40	60	3	3
7	L	PCERL607	PC L	PC	Embedded Systems and IoT Lab	0	0	3	0	1.5	50	50	2	3
8	P	PCERP608	PW S	PC	Mini Project: Socially Relevant Project	0	0	0	3	3	50	50	2	3
9	R / M / H		VA C		Remedial/Minor/Honours Course	3	0	0	0	4.5			3*	3*
	S 5/ S 6	Industrial V	isit (M		of 12 Days are permitted, Not Exceeding rking Days) /Industrial Training	mo	re tl	nan	6					
	Total									32/ 36			23/ 26*	25/28

Note: Open Electives are such courses which will be offered by other departments. Like CSE department students have to opt open electives from ECE/ME/EEE etc. departments.

Industrial Training:

Students who are not participating in the industrial visit must attend industrial training during that period.

PROGRAM ELECTIVE 3: PEERT 63N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
	PEERT 631	Network and Linear Control Systems	3-0-0-0		3
	PEERT 632	Micro-Electro-Mechanical-Systems	3-0-0-0		3
	PEERT 633	Foundations of Data Science	3-0-0-0	2	3
C	PEERT 634	Compiler Design	3-0-0-0] 3	3
	PEERT 636	Algorithm Analysis and Design	3-0-0-0		3
	PEERT 635	Design & Analysis of Algorithms	3-0-0-0		5/3

OPEN ELECTIVE 1: OEERT 61N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
	OEERT611	Basics of Analog and Digital Communication	3-0-0-0		3
	OEERT612	Robotics and Automation	3-0-0-0		3
0	OEERT613	Object Oriented Concepts	3-0-0-0	3	3
	OEERT614	Internet of Things	3-0-0-0		3
	OEERT615	Introduction to Artificial Intelligence	3-0-0-0		3

					SEVENTH SEMESTER (July-De	ece	mb	er)						
S	Ħ	Course	rse	rse	Course Title		Cro tru				Tot Mai		Credi	Hrs/
N O	Slot	Code	Course	Course Category	(Course Name)	L	Т	P	R	SS	CI A	E S E	ts	Week
1	A	PEERT74N / PEERM74N	P E	PE	PE-4 (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	3	0	0	0	4.5	40	60	3	3
2	В	PEERT75N/ PEERM75N	P E	PE	PE-5 (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	3	0	0	0	4.5	40	60	3	3
3	О	OEERT72N /IEERT72N/ OEERM72N	O E/ IL E	OE/ IE	OE/ILE-2 (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	3	0	0	0	4.5	40	60	3	3
4	I*	UEHUT704 / UEHUM70N	H M C	UE	Elective (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	2	0	0	0	3	50	50	2	2
5	S	PCERS705	P W S	PC	Seminar	0	0	3	0	1.5	50	0	2	3
6	P	PCERP706/ PCERI706	P W S	PC	Option 1: Major Project Option 2: Internship (4-6 Months)	0	0	0	8	8	100	0	4	8
	Total								26			17	22	

^{*}No Grade Points will be awarded for the I slot courses

Note: Open Electives are such courses which will be offered by other departments.

^{*}Students can opt for the internship either in the 7th or 8th semester.

^{*} Option 1: Work on a Project in the institute/department under the mentorship of faculty members.

Option 2: Full semester Internship in an Industry/organization (7th or 8th semester)

PROGRAM ELECTIVE 4: PEERT 74N

SLOT	COURSE CODE	(************************************		HOURS	CREDIT
	PEERT 741	Image Processing	3-0-0-0		3
	PEECT 742	Deep Learning	3-0-0-0		3
A	PEECT 743	Robotics and Automation	3-0-0-0	2	3
A	PEERT 744	Nano electronics	3-0-0-0	3	3
	PEERT 746	Block Chain Technologies	3-0-0-0		3
	PEERT 745	Network Security	3-0-0-0		5/3

PROGRAM ELECTIVE 5: PEERT 75N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
	PEERT 751	Web Programming	3-0-0-0		3
	PEERT 752	Low Power VLSI Design	3-0-0-0		3
В	PEECT 753	Real Time Operating Systems	3-0-0-0	2	3
D	PEERT 754	Client Server Architecture	3-0-0-0	3	3
	PEECT 756	Speech and Audio Processing	3-0-0-0		3
	PEERT 755	Neural Networks & Deep Learning	3-0-0-0		5/3

OPEN ELECTIVE 2: OEERT 72N

SLOT	COURSE CODE	COHRSES		HOURS	CREDIT
	OEERT 721	Sensors and Instrumentation	3-0-0-0		3
	OEERT 722	Biomedical Instrumentation	3-0-0-0		3
0	OEERT 723	Embedded System Design and Applications	3-0-0-0	3	3
	OEERT 724	Digital Image Processing	3-0-0-0		3
	OEERT 725	Concepts in Machine Learning	3-0-0-0		3

SL. No Course Code Slot I: HMC Elective		Slot I: HMC Elective
1	UEHU <mark>T</mark> 704	Project Management: Planning, Execution, Evaluation and Control
2	UEHU <mark>M</mark> 701	Proficiency course in French. (MOOC) (B1 level)
3	UEHUM702	Proficiency Course in German (B1 Level). (MOOC)
4	UEHUM703	Proficiency Course in Spanish (B1 Level) (MOOC)
5	UEHUM704	Introduction to Japanese Language and Culture (N5 level). (MOOC)

	EIGHT SEMESTER (January-June)													
S 1	Slot	Course	e Type	Course Category	Course Title		_	edit ctur		SS		tal rks	Cre	Hrs/ Wee
N o :	S	Code	Course	Cor Cate	(Course Name)	L	Т	P	R	55	CI A	ES E	dits	k
1	A	PEERT86N / PEERM86N	PE	PE	PE-6 (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	3	0	0	0	4.5	40	60	3	3
2	О	OEERT83N /IEERT83N/ OEERM83N	O E/I LE	OE/I E	OE/ILE-3 (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	3	0	0	0	4.5	40	60	3	3
3	I*	UEHUT803 / UEHUM803	H M C	UC	Organizational Behavior and Business Communication (Internship Students: Self Study/MOOC Approved by the University/Online Classes)	2	0	0	0	3	50	50	1	2
4	P	PCERP806/ PCERI806/ PCERJ806	P W S	PC	Option 1: Major Project Option 2: Internship (4-6 Months) Option 3: Major Project Phase -II (For the students who have not opted for internship in S7/S8)	0	0	0	8	8	10 0	0	4	8
	Total						20			11	16			

^{*}No Grade Points will be awarded for the I slot courses

PROGRAM ELECTIVE 6: PEERT 86N

SLOT	COURSE CODE COURSES L-T-P-R		HOURS	CREDIT	
	PEERT 861	PLC and Data Acquisition Systems	3-0-0-0		3
	PEERT 862	862 Electronic Product Design			3
	PEERT 863	System Software	3-0-0-0	2	3
A	PEECT 864	Cyber Security	3-0-0-0	3	3
	PEERT 866	Cryptography and Network Security	3-0-0-0		3
	PEERT 865	Cyber Forensics	3-0-0-0		5/3

OPEN ELECTIVE 3: OEERT 83N

SLOT	COURSE CODE	COURSES L-T-P-R F		HOURS	CREDIT
	OEERT 831	Biomedical Signal Processing	3-0-0-0		3
	OEERT 832	Hybrid and Electric Vehicles	3-0-0-0		3
O	OEERT 833	Fundamentals of Computer Networks	3-0-0-0	3	3
	OEERT 834	Cloud Computing and Applications	3-0-0-0		3
	OEERT 835	Introduction to Deep Learning	3-0-0-0		3

^{*} Option 2: Full semester Internship in an Industry/organization (7th or 8th semester)

	HMC Courses						
Sl. No:	Semester	Course Area	Credits				
1	S1/S2	Life Skills and Professional Communication	1				
2	G2/G4	Economics for Engineers	2				
3	S3/S4	Engineering Ethics and Sustainable Development	2				
4	S5	Constitution Of India. (MOOC)	1				
5	S7	Elective (Project Management/Foreign Languages)	2				
6	S8	Organizational Behavior and Business Communication	1				
	Total Credits 9						

BSC Courses					
Sl. No:	Semester	Course Area	Credits		
1	S1	Group Specific Mathematics-1	3		
2	01/03	Physics for Engineers	4		
3	S1/S2	Chemistry for Engineers	4		
4	S2	Group Specific Mathematics-2	3		
5	S3	Group Specific Mathematics-3	3		
6	S4	Group Specific Mathematics-4	3		
		Total Credits	20		

	ESC Courses					
Sl. No:	Semester	Course Area	Credits			
1		Engineering Graphics and Computer Aided Drawing	3			
2	S1	Introduction to Electrical and Electronics Engineering	4			
3		Algorithmic Thinking with Python	4			
4		Basic Electrical and Electronics Engineering Workshop	1			
5		Foundations of Computing: From Hardware Essentials to Web Design	3			
6	S2	Programming in C	4			
7	52	Engineering Entrepreneurship and IPR	3			
8		IT Workshop	1			
9	S3	Introduction to Artificial Intelligence and Data Science	4			
10	S6	Design Thinking and Creativity	2			
	Total Credits 29					

	Program Core Courses (PC)					
Sl. No:	Semester	Course Area	Credits			
1	S2	Digital Electronics	4			
2		Data Structures	4			
3	62	Digital System Design Using Verilog	4			
4	S3	Data Structures Lab	2			
5		Digital System Design Lab	2			
6		Computer Organization and Architecture	4			
7	S4	Computer Networks	4			
8	54	Computer Networking Lab	2			
9		Integrated Circuits Lab	2			
10	S5	Digital Signal Processing	4			
11	33	Theory of Computation	4			

12		Microcontrollers and Interfacing	3	
13		Digital Signal Processing Lab	2	
14		Database Management Systems Lab	2	
15		Operating Systems	4	
16	S6	Data Communication and Networking	3	
17		Embedded Systems and IoT Lab	2	
	Total Credits (Theory -10, Lab-7)			

Program Core-Project Based Learning (PBL)				
Sl. No:	Semester	Course Area	Credits	
1	S3	Electronic Devices & Circuits	4	
2	S4	Integrated Circuits	4	
3	S5	Database Management Systems	4	
4	S6	Embedded Systems & IoT	4	
Total Credits			16	

Program Elective Courses (PE)			
Sl. No:	Semester	Course Type	Credits
1	S4	PE-1	3
2	S5	PE-2	3
3	S6	PE-3	3
4	S7	PE-4	3
5		PE-5	3
6	S8	PE-6	3
		Total Credits	18

Open Elective Courses/Industry Elective(OE/IEL)				
Sl. No:	Semester	Course Type	Credits	
1	S6	OE/ILE-1	3	
2	S7	OE/ILE-2	3	
3	S8	OE/ILE-3	3	
	Total Credits		9	

Project/ Internship and Seminar			
Sl. No:	Semester	Course Type	Credits
1	S6	Mini Project	2
2	- S7	Seminar	2
3		Major Project/Internship	4
4	S8	Major Project/Internship/Research Project	4
	Total Credits		

	Activity Points				
Sl. No.	Group	Courses	Credits	Minimum Credit Requirements	
1		NSS, NCC, NSO (National Sports Organization)			
2	I	Arts/Sports/Games	1 (40 Points)		
3		Union/Club Activities	1 (40 Points)	3 Credits (One credit from each Group)	
4		English Proficiency Certification (TOFEL, IELTS, BEC etc.)			
5		Aptitude Proficiency Certification (GRE, CAT, GMAT etc.)/ Valid Gate Score.			
6	II	Short Term Internship (Minimum 2 weeks), Clinical Exposure/Training (Minimum 2 weeks), Conferences/Paper Presentation/ Workshop Activities/ Professional Body Activities, Participation in University level/State Level/ National Level Hackathons			
7		Journal Publication, Patents, Start-Up, Innovation, Winners of National/International Level Hackathons	1		
8	III	Skilling Certificates (Approved by the University)	(40 Points)		

- Students are required to acquire a minimum of 120 activity points, with at least 40 points per group, to fulfill the curriculum requirement of 3 activity credits.
- For B. Tech Lateral Entry students, 30 points per group are required. A minimum of 90 activity points must be acquired to obtain the 3 activity credits mandated by the curriculum.

	Course classifications of the B. Tech Programmes and Overall Credit Structure			
Sl. No	Category	Code	Credits	
1	Humanities and Social Sciences including Management Courses	HMC	9	
2	Basic Science Courses	BSC	20	
3	Engineering Science Courses	ESC	29	
4	Programme (Professional) Core Courses	PCC	52	
5	Programme (Professional) Core Courses-Project Based Learning	PBL	16	
6	Programme Elective Courses	PEC	18	
7	Open Elective Courses/Industry Linked Elective	OEC/ILE	9	
8	Mini Project, Project Work/Internship and Seminar	PWS	12	
9	Health and Wellness	HWP	1	
10	Skill Enhancement Courses (Digital 101)	SEC	1	
11	Mandatory Student Activities	MSA	3	
Total Credits			170	