VJEC B. Tech. CURRICULUM 2024

B. Tech Curriculum-2024

Semester I to VIII

Computer Science and Engineering (Cyber Security)

Branch Code: CC
(Group A)

FIRST SEMESTER (July-December): Group A														
10 Days Compulsory Induction Program and UHV														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs./ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	GAMAT101	BSC	GC	Mathematics for Computer Science-1	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	GAPHT121	BSC	GC	Physics for Computer Science	3	0	2	0	5.5	40	60	4	5
		GXCYT122			Chemistry for Computer Science and Electrical Science.									
3	C	GXEST103	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 S1/ S2	UCHWT127	HWP	UC	Health and Wellness	1	0	1	0	0	50	0	1	2/3
		UCHUT128	HMC		Life Skills and Professional Communication	2	0	1	0	3.5	100	0		
8	S_1/ S_2	UCSEM129	SEC	UC	Skill Enhancement Course:	MOOC**				2			-	
Total										**30/ 32**			**20**	**25/ 26**
Bridge Course (Mathematics or Introduction to Computer Science)* : Total 15 Hrs.														

No end semester examination
No Grade Points will be awarded for the MOOC course and I slot course.

- 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

Note: *Physics, Chemistry, Health and Wellness & Life Skill and Professional Communication can be offered in both Semester 1 (S1) and Semester 2 (S2).*

Digital 101 (NASSCOM)		
Sl. No:	**Technologies Covered**	**Hours**
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**

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, we 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.

SECOND SEMESTER (January-June): Group A														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs./ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	GAMAT201	BSC	GC	Mathematics for Computer Science-2	3	0	0	0	4.5	40	60	3	3
2	B S1/ S2	GAPHT121 GXCYT122	BSC	GC	Physics for Computer Science Chemistry for Computer Science and Electrical Science.	3	0	2	0	5.5	40	60	4	5
3	C	GXEST203	ESC	GC	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	E	PCCST205	PC	PC	Discrete Mathematics	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
7	I S1/ S2	UCHWT127 UCHUT128	HWP HMC	UC	Health and Wellness Life Skills and Professional Communication	1 2	0 0	1 1	0 0	0 3.5	50 100	0 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	UC	Skill Enhancement Course:	MOOC							1	
Total										**34**			**24**	**27/ 28**

THIRD SEMESTER (July-December)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs./ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	GAMAT301	BSC	GC	Mathematics for Computer Science-3	3	0	0	0	4.5	40	60	3	3
2	B	PCCST302	PC	PC	Theory of Computation	3	1	0	0	5	40	60	4	4
3	C	PCCST303	PC	PC	Data Structures and Algorithms	3	1	0	0	5	40	60	4	4
4	D	PBCCT304	PC-PBL	PB	Basic Concepts in Computer Networks	3	0	0	1	5.5	60	40	4	4
5	F	GAEST305	ESC	GC	Digital Electronics & Logic Design	3	1	0		5	40	60	4	4
6	G S3/S4	UCHUT346 / UCHUT347	HMC	UC	Economics for Engineers / Engineering Ethics and Sustainable Development	2	0	0	0	3	50	50	2	2
7	L	PCCSL307	PCL	PC	Data Structures Lab	0	0	3	0	1.5	50	50	2	3
8	Q	PCCCL308	PCL	PC	Shell Scripting and network administration using Linux	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***	**27/31***
Bridge Course for Lateral Entry Students: Total 15 Hrs.														

FOURTH SEMESTER (January-June)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs./ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	GAMAT401	BSC	GC	Mathematics for Computer Science-4	3	0	0	0	4.5	40	60	3	3
2	B	PCCST402	PC	PC	Database Management Systems	3	1	0	0	5	40	60	4	4
3	C	PCCST403	PC	PC	Operating Systems	3	1	0	0	5	40	60	4	4
4	D	PBCST404	PC-PBL	PB	Computer Organization and Architecture	3	0	0	1	5.5	60	40	4	4
5	E	PECCT41N	PE	PE	PE- 1	3	0	0	0	4.5	40	60	3	3
6	G S3/S4	UCHUT346	HMC	UC	Economics for Engineers	2	0	0	0	3	50	50	2	2
		UCHUT347			Engineering Ethics and Sustainable Development									
7	L	PCCSL407	PCL	PC	Operating Systems Lab	0	0	3	0	1.5	50	50	2	3
8	Q	PCCSL408	PCL	PC	DBMS 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***

PROGRAM ELECTIVE I: PECCT41N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	PECCT411	Introduction to Parallel and Distributed Programming	3-0-0-0	3	3
	PECCT412	Introduction to Block Chain Technologies	3-0-0-0		3
	PECCT413	Introduction to AI and ML	3-0-0-0		3
	PECCT414	Fundamentals of Industrial Control system security	3-0-0-0		3
	PECST 495	Advanced Data Structures	3-0-0-0		3

FIFTH SEMESTER (July-December)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs./ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	PCCCT501	PC	PC	Applied Cryptography	3	1	0	0	5	40	60	4	4
2	B	PCCCT502	PC	PC	Network and System Security	3	1	0	0	5	40	60	4	4
3	C	PCCST503	PC	PC	Machine Learning	3	0	0	0	4.5	40	60	3	3
4	D	PBCST5CS	PC- PBL	PB	Microcontrollers	3	0	0	1	5.5	60	40	4	4
5	E	PECCT52N	PE	PE	PE-2	3	0	0	0	4.5	40	60	3	3
6	I*	UCHUM506	HMC	UC	Constitution Of India (MOOC)	-	-	-	-	2	-	-	1	-
7	L	PCCCL507	PCL	PC	Cryptography Lab	0	0	3	0	1.5	50	50	2	3
8	Q	PCCCL508	PCL	PC	Network and System Security 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 (Maximum 12 Days are permitted, Not Exceeding more than 6 Working Days) /Industrial Training												
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: PECCT52N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
E	PECCT521	Network fundamentals for cloud	3-0-0-0	3	3
	PECCT522	Block chain and crypto currency	3-0-0-0		3
	PECCT523	AI in Cyber Security	3-0-0-0		3
	PECCT524	Advanced Industrial cyber security	3-0-0-0		3
	PECST521	Software project management	3-0-0-0		3
	PECST 525	Data Mining	5-0-0-0		3

SIXTH SEMESTER (January-June)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs./ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	PCCST601	PC	PC	Compiler Design	3	1	0	0	5	40	60	4	4
2	B	PCCCT602	PC	PC	Cyber Forensics	3	0	0	0	4.5	40	60	3	3
3	C	PECCT63N	PE	PE	PE-3	3	0	0	0	4.5	40	60	3	3
4	D	PBCCT604	PC-PBL	PB	Ethical Hacking and IoT Security	3	0	0	1	5.5	60	40	4	4
5	F	GAEST605	ESC	GC	Design Thinking and Product Development (Group Specific Syllabus)	2	0	0	0	3	40	60	2	2
6	O	OEXXT61N /IEXXT61N	OE/ILE	OE/IE	OE/ILE-1	3	0	0	0	4.5	40	60	3	3
7	L	PCCCL607	PCL	PC	Cyber Forensic Lab	0	0	3	0	1.5	50	50	2	3
8	P	PCCSP608	PWS	PC	Mini Project: Socially Relevant Project	0	0	3	0	1.5	50	50	2	3
9	R/ M/ H		VAC		Remedial/Minor/Honours Course	3	0	0	0	4.5			3*	3*
	S5/ S6	Industrial Visit (Maximum of 12 Days are permitted, Not Exceeding more than 6 Working Days) /Industrial Training												
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: PECCT63N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	PECCT 631	Cloud Infrastructure and Systems	3-0-0-0	3	3
	PECCT 632	Cryptographic algorithms in block chain	3-0-0-0		3
	PECCT 633	AI and ML in Cyber Security Defense	3-0-0-0		3
	PECCT 634	OT Threat Prevention	3-0-0-0		3
	PECCT 635	Biometric Security	3-0-0-0		3
	PECCT 636	Arduino programming	2-1-0-0		3
	PECCT 637	Industrial IOT & applications	2-1-0-0		3

OPEN ELECTIVE 1: OECST 61N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	OECST611	Data structures	3-0-0-0	3	3
	OECST612	Data communication	3-0-0-0		3
	OECST613	Foundations of cryptography	3-0-0-0		3
	OECST614	Machine learning for Engineers	3-0-0-0		3

SEVENTH SEMESTER (July-December)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs/ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	PECCT74N / PECCM74N	PE	PE	PE-4 (Internship Students: Self Study/MOOC Approved by the College/Online Classes)	3	0	0	0	4.5	40	60	3	3
2	B	PECCT75N/ PECCM75N	PE	PE	PE-5 (Internship Students: Self Study/MOOC Approved by the College/Online Classes)	3	0	0	0	4.5	40	60	3	3
3	O	OEXXT72N /IEXXT72N/ OEXXM72N	OE/ ILE	OE/IE	OE/ILE-2 (Internship Students: Self Study/MOOC Approved by the College/Online Classes)	3	0	0	0	4.5	40	60	3	3
4	I*	UEHUT704 / UEHUM70N	HMC	UE	Elective (Internship Students: Self Study/MOOC Approved by the College/Online Classes)	2	0	0	0	3	50	50	2	2
5	S	PCCCS705	PWS	PC	Seminar	0	0	3	0	1.5	50	0	2	3
6	P**	PCCCP706/ PCCCI706	PWS	PC	Option 1: Major Project Option 2: Internship (4-6 Months)	0	0	0	8	8	100	0	4	8
7	R/H		VAC		Remedial/Honours Course	3	0	0	0	4.5			3*	3*
Total										**26/ 31**			**17/20 ***	**22/25***

**No Grade Points will be awarded for the I slot courses.*

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**)*

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

PROGRAM ELECTIVE 4: PECCT74N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	PECCT 741	Malware Forensics	3-0-0-0	3	3
	PECCT 742	Intrusion Detection and Prevention Systems	3-0-0-0		3

	PECCT 743	Big Data Security	3-0-0-0		3
	PECCT 746	Security operations analysis	3-0-0-0		3
	PECST 745	Computer Vision	3-0-0-0		3

PROGRAM ELECTIVE 5: PECCT75N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
B	PECCT 751	Data & Computer Communication	3-0-0-0	3	3
	PECCT 752	Social and Ethical issues of the Internet	3-0-0-0		3
	PECCT 753	Information Security in public and private sectors	3-0-0-0		3
	PECCT 754	Engineering of Trustworthy Secure Systems	3-0-0-0		3
	PECCT 755	Cyber Threat Intelligence	3-0-0-0		3

OPEN ELECTIVE 2: OECST72N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	OECST 721	Cyber Security	3-0-0-0	3	3
	OECST 722	Cloud Computing	3-0-0-0		3
	OECST 723	Software Engineering	3-0-0-0		3
	OECST 724	Computer Networks	3-0-0-0		3
	OECST 725	Mobile application development	3-0-0-0		3

Slot I: HMC Elective	
1	Project Management: Planning, Execution, Evaluation and Control
2	Proficiency course in French. (MOOC) (B1 level)
3	Proficiency Course in German (B1 Level). (MOOC)
4	Proficiency Course in Spanish (B1 Level) (MOOC)
5	Introduction to Japanese Language and Culture (N5 level). (MOOC)

EIGHT SEMESTER (January-June)														
Sl. No:	**Slot**	**Course Code**	**Course Type**	**Course Category**	**Course Title (Course Name)**	**Credit Structure**				**SS**	**Total Marks**		**Credits**	**Hrs/ Week**
						L	**T**	**P**	**R**		**CIA**	**ESE**		
1	A	PECCT86N / PECCM86N	PE	PE	PE-6 (Internship Students: Self Study/MOOC Approved by the College/Online Classes)	3	0	0	0	4.5	40	60	3	3
2	O	OEXXT83N /IEXXT83N/ OEXXM83N	OE/ILE	OE/IE	OE/ILE-3 (Internship Students: Self Study/MOOC Approved by the College/Online Classes)	3	0	0	0	4.5	40	60	3	3
3	I*	UEHUT803 / UEHUM803	HMC	UC	Organizational Behavior and Business Communication (Internship Students: Self Study/MOOC Approved by the College/Online Classes)	2	0	0	0	3	50	50	1	2
4	P	PCCCP806/ PCCCI806/ PCCCJ806	PWS	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	100	0	4	8
Total										**20**			**11**	**16**

**No Grade Points will be awarded for the I slot courses.*

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

PROGRAM ELECTIVE 6: PECCT86N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
A	PECCT 861	IPR and Cyber Law	3-0-0-0	3	3
	PECCT 862	Security in Wireless networks	3-0-0-0		3
	PECCT 863	Secure mobile application development	3-0-0-0		3
	PECCT 864	Network Forensics	3-0-0-0		3
	PECCT 866	Windows and Linux Forensics	3-0-0-0		3
	PECST 865	Next Generation Interaction Design	3-0-0-0		3

OPEN ELECTIVE 3: OECCT83N

SLOT	COURSE CODE	COURSES	L-T-P-R	HOURS	CREDIT
O	OECST 831	Introduction to Algorithms	3-0-0-0	3	3
	OECST 832	Web Programming	3-0-0-0		3
	OECST 833	Software Testing	3-0-0-0		3
	OECST 834	Internet of Things	3-0-0-0		3
	OECST 835	Computer Graphics	3-0-0-0		3

HMC Courses			
Sl. No:	**Semester**	**Course Area**	**Credits**
1	**S1/S2**	Life Skills and Professional Communication	1
2	**S3/S4**	Economics for Engineers	2
3		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	**S1/S2**	Physics for Engineers	4
3		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 (Group A)			
Sl. No:	**Semester**	**Course Area**	**Credits**
1	**S1**	Engineering Graphics and Computer Aided Drawing	3
2		Introduction to Electrical and Electronics Engineering	4
3		Algorithmic Thinking with Python	4
4		Basic Electrical and Electronics Engineering Workshop	1
5	**S2**	Foundations of Computing: From Hardware Essentials to Web Design	3
6		Programming in C	4
7		Engineering Entrepreneurship and IPR	3
8		IT Workshop	1
9	**S3**	Introduction to Artificial Intelligence and Data Science	4
10	**S6**	Design Thinking and Product Development	2
Total Credits			**29**

Programme Core Courses (PC)			
Sl. No:	**Semester**	**Course Area**	**Credits**
1	**S2**	Core 1	4
2	**S3**	Core 2	4
3		Core 3	4
4		Lab-1	2
5		Lab-2	2
6	**S4**	Core 4	4
7		Core 5	4
8		Lab-3	2
9		Lab-4	2

10	S5	Core 6	4
11		Core 7	4
12		Core 8	3
13		Lab-5	2
14		Lab-6	2
15	S6	Core 9	4
16		Core 10	3
17		Lab-7	2
Total Credits (Theory -10, Lab-7)			**52**

Programme Core-Project Based Learning (PBL)			
Sl. No:	**Semester**	**Course Area**	**Credits**
1	**S3**	Core PBL-1	4
2	**S4**	Core PBL-2	4
3	**S5**	Core PBL-3	4
4	**S6**	Core PBL-4	4
Total Credits			**16**

Programme 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			**12**

Activity Points				
Sl. No.	**Group**	**Courses**	**Credits**	**Minimum Credit Requirements**
1	I	NSS, NCC, NSO (National Sports Organization)	1 (40 Points)	3 Credits (One credit from each Group)
2		Arts/Sports/Games		
3		Union/Club Activities		
4	II	English Proficiency Certification (TOFEL, IELTS, BEC etc.)	1 (40 Points)	
5		Aptitude Proficiency Certification (GRE, CAT, GMAT etc.)/ Valid Gate Score.		
6		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	III	Journal Publication, Patents, Start-Up, Innovation, Winners of National/ International Level Hackathons	1 (40 Points)	
8		**Skilling Certificates (Approved by the college)**		

- ***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	PW	1
10	Skill Enhancement Courses (Digital 101)	SEC	1
11	Mandatory Student Activities	MSA	3
Total Credits			**170**

Dr.Reema Mathew A
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Vimal Jyothi Engineering College

Dr. Benny Joseph
Principal
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