



A CMI INSTITUTION

CHRIST COLLEGE OF ENGINEERING (AUTONOMOUS)

DEPARTMENT OF CIVIL ENGINEERING

CURRICULUM (2026 REGULATION)

M.TECH. STRUCTURAL ENGINEERING AND CONSTRUCTION MANAGEMENT





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Approved by BoS meeting held on 17-06-2026

Approved by Academic Council Meeting held on 23-06-2026

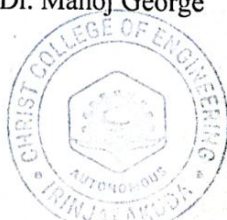
BoS Chairperson

Dr. Sherjah P. Yusuf Ali

CHAIRPERSON
Board of Studies
B.Tech Civil Engineering
Christ College of Engineering
(Autonomous)
Irinjalakuda, Kerala

Director of Academics

Dr. Manoj George



Principal

Dr. Soloman P.A.



PG Programme Structure

Semester (Credits)	S1	S2	S3	S4	Total	%
Humanities and Social Science Course including Management Course (HM)	0	0	0	0	0	0
Basic Science Course (BS)	3	0	0	0	3	4.5
General Course (GC)	2	0	0	0	2	2.94
Engineering Science Course (ES)	0	0	0	0	0	0
Programme Core Courses (PC)	6	6	0	0	12	17.65
Program Elective Course (PE)	6	6	0	0	12	17.65
Open Elective Course (OE)	0	0	0	0	0	0
Interdisciplinary Elective (IE)	0	3	0	0	3	4.5
Employability Enhancement Course (EE)	0	0	0	0	0	0
Project/ Seminar/ Internship (PR/IP)	0	2	14	16	32	47.05
Laboratory (L)	1	1	0	0	2	2.94
MOOC Course (MC)	0	0	2	0	2	2.94
Total	18	18	16	16	68	

Newly added program category

- L-T-P-R = Lecture – Tutorial – Practical – Project
- SS (Self Study) Hours = $1.5*L + 0.5*T + 0.5*P + R$
- CAE = Continuous assessment & Evaluation, and ESE = End Semester Examination



FIRST SEMESTER: STRUCTURAL ENGINEERING & CONSTRUCTION MANAGEMENT**BRANCH: CIVIL ENGINEERING****STREAM: SECM**

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		CAE	ESE		
THEORY														
1	A	C26SCT101	BS	DC	Numerical Methods and Statistics	2	1	0	0	3.5	40	60	3	3
2	B	C26SCT102	PC	PC	Structural Dynamics	2	1	0	0	3.5	40	60	3	3
3	C	C26SCT103	PC	PC	Construction Planning Scheduling & Control	3	0	0	0	4.5	40	60	3	3
4	D	C26SCT1X4	PE	PE	Program Elective I	3	0	0	0	4.5	40	60	3	3
5	E	C26SCT1X5	PE	PE	Program Elective II	3	0	0	0	4.5	40	60	3	3
6	F	G26RMT106	GC	GC	Research Methodology & IPR	2	0	0	0	3	40	60	2	2
PRACTICALS														
7	G	C26SCP107	PC	PC	Advanced Structural Engineering Laboratory	0	0	2	0	1	100	0	1	2
Total										21.5			18	19

SECOND SEMESTER: STRUCTURAL ENGINEERING & CONSTRUCTION MANAGEMENT**BRANCH: CIVIL ENGINEERING****STREAM: SECM**

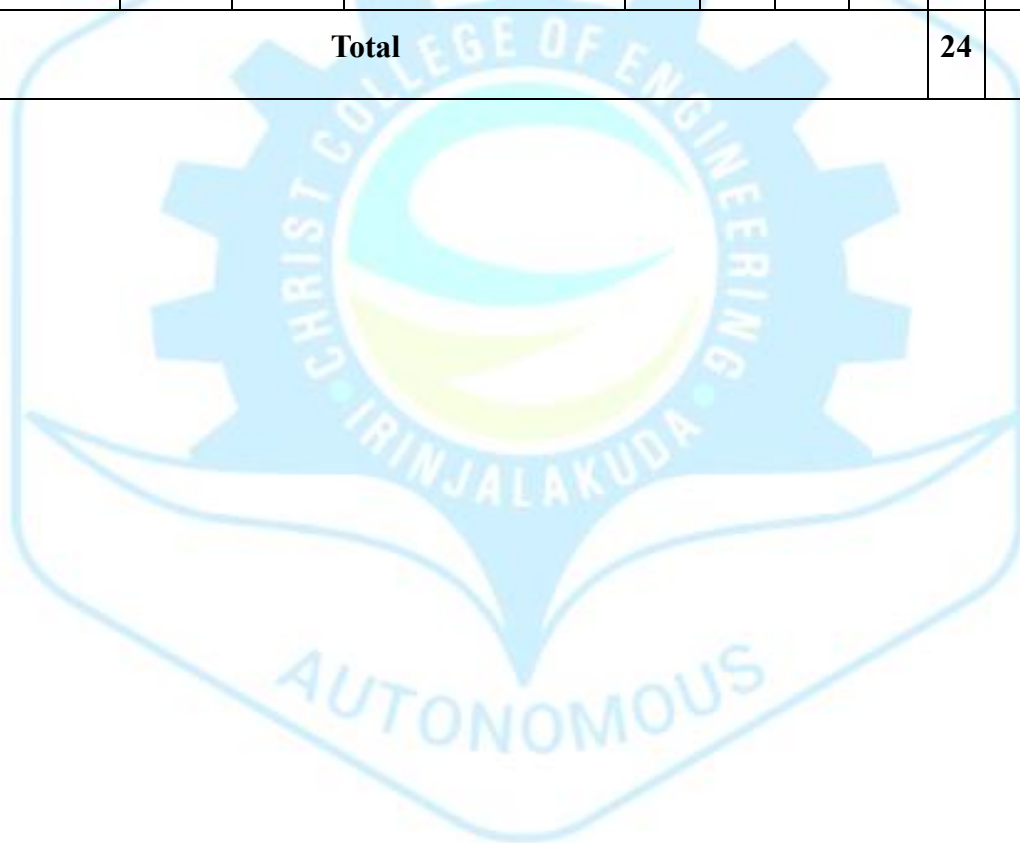
Sl. No:	Slot	Course Code	Course Type	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./Week
						L	T	P	R		CAE	ESE		
THEORY														
1	A	C26SCT201	PC	PC	Advanced Design of Structures	2	1	0	0	3.5	40	60	3	3
2	B	C26SCT202	PC	PC	Advanced Concrete Technology	3	0	0	0	4.5	40	60	3	3
3	C	C26SCR203	PR	PR	Mini Project	0	0	0	3	4.0	100	0	2	4
4	D	C26SCT2X4	PE	PE	Program Elective-III	3	0	0	0	4.5	40	60	3	3
5	E	C26SCT2X5	PE	PE	Program Elective-IV	3	0	0	0	4.5	40	60	3	3
6	F	C26SCT2X6	IE	IE	Interdisciplinary Elective	3	0	0	0	4.5	40	60	3	3
PRACTICALS														
7	G	C26SCP207	PC	PC	Computational Lab	0	0	2	0	1	100	0	1	2
Total										26.5			18	21

THIRD SEMESTER: STRUCTURAL ENGINEERING & CONSTRUCTION MANAGEMENT**BRANCH: CIVIL ENGINEERING****STREAM: SECM**

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		CAE	ESE		
THEORY														
1	A	C26SCM30X	MC	MC	MOOC	-	-	-	-	-	To be completed successfully		2	0
2	B	C26SCA30X	ES	AC	Audit Course	3	0	0	0	4.5	40	60	0	3
3	C	C26SCI303	IP	IP	Internship	-	-	-	-	-	50	50	3	0
4	D	C26SCR304	PR	PR	Dissertation Phase I	0	0	0	17	17	100	---	11	17
		C26SCR305	PR	PR	Research Project Phase 1	0	0	0	17	17	100	---	11	17
Total										21.5			16	20

FOURTH SEMESTER: STRUCTURAL ENGINEERING & CONSTRUCTION MANAGEMENT**BRANCH: CIVIL ENGINEERING****STREAM: SECM**

Sl. No:	Slot	Course Code	Course Type	Course Category	Course Title (Course Name)	Credit Structure				SS	Total		Credits	Hrs./Week
						L	T	P	R		CAE	ESE		
THEORY														
1	A	C26SCR401	PR	PR	Dissertation Project Phase II	0	0	0	24	24	100	100	16	24
		C26SCR402	PR	PR	Research Project Phase II	0	0	0	24	24	100	100	16	24
Total										24			16	24



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		CAE	ESE		
PROGRAM ELECTIVE-I (SEMESTER I)														
1	C	C26SCT114	PE	PE1	Mechanics of Composite Materials	3	0	0	0	4.5	40	60	3	3
2	C	C26SCT124	PE	PE1	Theory of Elasticity & Plasticity	3	0	0	0	4.5	40	60	3	3
3	C	C26SCT134	PE	PE1	Finite Element Method	3	0	0	0	4.5	40	60	3	3
4	C	C26SCT144	PE	PE1	High Rise Structures	3	0	0	0	4.5	40	60	3	3
PROGRAM ELECTIVE-II (SEMESTER I)														
5	D	C26SCT115	PE	PE2	Construction Management and Engineering Economics	3	0	0	0	4.5	40	60	3	3
6	D	C26SCT125	PE	PE2	Advanced Construction Techniques	3	0	0	0	4.5	40	60	3	3
7	D	C26SCT135	PE	PE2	Modern Construction Materials	3	0	0	0	4.5	40	60	3	3
8	D	C26SCT145	PE	PE2	Construction Contract Methods and Equipment	3	0	0	0	4.5	40	60	3	3
PROGRAM ELECTIVE-III (SEMESTER II)														
9	D	C26SCT214	PE	PE3	Analysis and Design of Earthquake Resistant Structures	3	0	0	0	4.5	40	60	3	3
10	D	C26SCT224	PE	PE3	Advanced Design of Metal Structures	3	0	0	0	4.5	40	60	3	3
11	D	C26SCT234	PE	PE3	Advanced Design of Foundation	3	0	0	0	4.5	40	60	3	3
12	D	C26SCT244	PE	PE3	Prestressed Concrete Design	3	0	0	0	4.5	40	60	3	3

PROGRAM ELECTIVE-IV (SEMESTER II)

13	E	C26SCT215	PE	PE4	Project Planning and Implementation	3	0	0	0	4.5	40	60	3	3
14	E	C26SCT225	PE	PE4	Project Evaluation and Management	3	0	0	0	4.5	40	60	3	3
15	E	C26SCT235	PE	PE4	Forensic Engineering and Rehabilitation of Structures	3	0	0	0	4.5	40	60	3	3
16	E	C26SCT245	PE	PE4	Construction Personnel Management	3	0	0	0	4.5	40	60	3	3

INTERDISCIPLINARY ELECTIVE (SEMESTER II)

17	F	C26SCT216	IE	IE1	Soil Exploration Techniques	3	0	0	0	4.5	40	60	3	3
18	F	C26SCT226	IE	IE1	Natural Hazards and Impact Management	3	0	0	0	4.5	40	60	3	3

MOOC COURSES (SEMESTER III)

19	A	C26SCM30X	MC	MC1	List of Suitable MOOC Courses will be published as per the availability of courses in the AICTE/NPTEL/SWAY-AM or NITTTR platforms prior to the commencement of the semester	0	0	0	0	0	0	0	2	0
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AUDIT COURSES (SEMESTER III)

20	B	C26SCA301	ES	AC	Academic Writing	3	0	0	0	4.5	0	0	0	3
21	B	C26SCA302	ES	AC	Advanced Engineering Materials	3	0	0	0	4.5	0	0	0	3
22	B	C26SCA303	ES	AC	Data Science for Engineers	3	0	0	0	4.5	0	0	0	3
23	B	C26SCA304	ES	AC	Design Thinking	3	0	0	0	4.5	0	0	0	3
24	B	C26SCA305	ES	AC	Reuse And Recycle Technology	3	0	0	0	4.5	0	0	0	3
25	B	C26SCA306	ES	AC	Expert Systems	3	0	0	0	4.5	0	0	0	3
26	B	C26SCA307	ES	AC	System Modeling	3	0	0	0	4.5	0	0	0	3

27	B	C26SCA308	ES	AC	Principles of Automation	3	0	0	0	4.5	0	0	0	3
28	B	C26SCA309	ES	AC	Forensic Engineering	3	0	0	0	4.5	0	0	0	3

Note:

L-T-P-R = Lecture – Tutorial – Practical – Project

SS (Self Study) Hours = $1.5*L+0.5*T+0.5*P +R$

CAE - Continuous Assessment and Evaluation, and ESE - End Semester Examination

Students can either do Dissertation or Research Project

Internship:

Student shall opt for carrying out the Internship at an Industry/Research Organization or at another institute of higher learning and repute (Academia). The organization for Internship shall be selected/decided by the students on their own with prior approval from the faculty advisor/respective PG Programme Coordinator/Guide/Supervisor. Every student shall be assigned an internship Supervisor/Guide at the beginning of the Internship. The training shall be related to their specialisation after the second semester for a minimum duration of six to eight weeks. On completion of the course, the student is expected to be able to develop skills in facing and solving the problems experiencing in the related field.

MOOC Courses:

The MOOC course shall be considered only if it is conducted by the agencies namely AICTE/NPTEL/SWAYAM or NITTTR. The MOOC course should have a minimum duration of 8 weeks and the content of the syllabus shall be enough for at least 40 hours of teaching. The course should have a proctored/offline end semester examination. The students can do the MOOC according to their convenience, but shall complete it by third semester. The list of MOOC courses will be provided by the concerned BoS if at least 70% of the course content match with the area/stream of study. The course shall not be considered if its content has more than 50% of overlap with a core/elective course in the concerned discipline or with an open elective.

MOOC Course to be successfully completed before the commencement of fourth semester (starting from semester 1). A credit of 2 will be awarded to all students whoever successfully completes the MOOC course as per the evaluation pattern of the respective agency conducting the MOOC.