

St. Xavier's Catholic College of Engineering

(Autonomous)

Faculty of Civil Engineering

III Board of Studies Meeting

Attendance Sheet

Venue: Civil Computer lab

Date & Time: 06-01-2024 & 10.00 am

Sl. No.	Name	Address	BOS Designation	Signature
1	Dr. S. Nagan Professor	Department of Civil Engineering, Thiagarajar College of Engineering, Madurai	University Nominee for Board of Studies	S. Nagan
2	Ms. T. Premalatha Manager	Kavin Engineering and Services Private Ltd, Coimbatore	Representative from industry	T. Premalatha
3	Dr. C. Shermi Senior Scientist	Environment Technology Division, Government of India, Trivandrum	Postgraduate Meritorious Alumnus	Dr. C. Shermi
4	Dr. J. Maheswari PRINCIPAL	SXCCE	Special invitee	Dr. J. Maheswari 6.1.24
5	Dr. I. Jerry Mol	AP/CE, SXCCE	Chairman	Dr. I. Jerry Mol 6/1/24
6	Dr. J. JERLIN REGIN	ASST. Prof / civil / SXCCE	member	Dr. J. JERLIN 6/1/24
7	L. Porcia	AP/CE, SXCCE	Member	L. Porcia
8	J. Jeyaraj Suresh Rai	AP/CE, SXCCE	member	J. Jeyaraj Suresh Rai
9	Dr. P. ANTONY VIMAR	A.P./C.E. / SXCCE	Member	Dr. P. ANTONY
10	S. Shila Balakrishnan	AP/CE, SXCCE	Member	S. Shila Balakrishnan



ST. XAVIER'S
CATHOLIC COLLEGE OF ENGINEERING
(Autonomous)

Chunkankadai, Nagercoil - 629003
Kanyakumari District, Tamil Nadu

An Autonomous Institution Affiliated to Anna University, Chennai
Accredited with 'A' Grade by NAAC
UG Programs(ECE,EEE,Mech,Civil,CSE & IT) Accredited by NBA
Recognized under section 2(f) & 12(B) of UGC Act, 1956
UG Programs(ECE,EEE,Mech,Civil,CSE & IT) ,
MBA & MCA Programs Permanently Affiliated

DEPARTMENT OF CIVIL ENGINEERING

BOARD OF STUDIES MEETING -03

Dated: 06-01-2024

Time: 10.30 AM to 01.30 PM

Venue: Hybrid Mode (Civil Computer lab)

Members Present: Enclosed

Minutes of Meeting

The 3rd Meeting of the Board of studies started with a prayer and welcome address. With the introduction, the HOD was asked to present.

Agenda

03.01: Confirmation of second BoS meeting minutes held on 22/05/2023 and Decision/Action
Taken report

The HOD started presenting the action taken report for the previous meeting minutes. The BOS members gave the following suggestions.

Suggestions	Action taken	Remarks
B.E. Civil Engineering		
Credit for practical subjects marked as 1.5 can be replaced by 2.	Credits have been changed to 2 in the syllabus.	Confirmed in the BOS meeting.
The subject 'Concrete Technology' is very vast. It can be changed to 3 credits instead of 4 credits.	Topics have been reduced and the credit is changed to 3.	Confirmed in the BOS meeting.
The course title must be ordered based on the domain order and then rearrange the course code.	The course titles have been ordered based on domain order.	Confirmed in the BOS meeting.

In 'Surveying', drones and their application can be added in the unit 5.	Topics related to drones have been added.	Confirmed in the BOS meeting.
In 'Computer Aided Building Drawing', the List of Experiments can be changed to List of Drawings. The type of building can be mentioned with it.	The mentioned changes have been made.	Confirmed in the BOS meeting.
Spreadsheets for 'Structural Analysis', 'Design subjects' can be taught.	Spreadsheet has been added.	Confirmed in the BOS meeting.
In 'Transportation Engineering', all 4 modes are clubbed together. This can be splitted as 'Highway and Railway' as one and 'Airport, Harbour and Docks' as other subject.	"Highway and Railway Engineering" has been added as Core Course and "Airports, Harbours and Docks Engineering" has been added as Elective Course.	Confirmed in the BOS meeting.
In 'Environmental Engineering', syllabus can be arranged in proper sequence. Contents can be ordered logically.	Contents have been ordered in proper logical sequence.	Confirmed in the BOS meeting.
In 'Hydraulics Engineering laboratory', Experiments headed under Flow Measurement was not correct, that has to be changed. Experiments under pumps should be changed as characteristics study.	The mentioned changes have been made.	Confirmed in the BOS meeting.
Elective on 'Modern Matrix method' can be added.	Topics related to Modern Matrix Method have been added in 3 units in the course "Modern Method of Analysis".	Confirmed in the BOS meeting.

M.E Structural Engineering

Suggestions	Action taken	Remarks
The topics 'Capacity based design for RCC and Push over analysis' can be removed from subject Masonry Structures.	The topic 'Capacity based design for RCC structures and Push over analyses' has been removed from the unit 4.	Confirmed in the BOS meeting.

In 'Shell Structures', Theory of Plates and Methods of Plate Modelling can be added. Title can be changed as 'Design of Plates and Shells'.	Three units regarding basic theory of plates and various methods of plate modelling have been added. Subject title has been changed into 'Theory of Plates and Shells' as most of the topics are related to theory than design.	Confirmed in the BOS meeting.
In 'Performance of Structures with Soil Structure Interaction', Ground improvement techniques and plaxis software can be added.	The topics Ground improvement techniques and Application of Plaxis software have been added in unit 5.	Confirmed in the BOS meeting.
In 'Design of Bridges', launching of girders can be added.	A topic 'Launching of girder in steel truss bridge' has been added in unit 5.	Confirmed in the BOS meeting.
M.E. Construction Engineering and Management		
Repeated content and title can be modified in the subject "Project Safety Management".	Title and contents of Unit 5 has been modified.	Confirmed in the BOS meeting.
Title and contents of Unit 5 shall be ordered in the subject "Resource Management and Control in Construction".	The title and order of the contents of Unit 5 has been modified.	Confirmed in the BOS meeting.
The content should be altered based on Construction Management in the subject "Fundamentals of Environmental Impact Assessment".	Topics related to Construction Management have been added.	Confirmed in the BOS meeting.
The Elective "Composite Materials" is not needed for Construction Engineering and Management.	New Elective "System Integration In Construction" has been added instead of Composite Materials.	Confirmed in the BOS meeting.

03.02. Discussion on the Suggestions / Recommendations offered by the members in the PAQIC meeting and Ratification of Fourth Semester Course outcomes

Suggestions / Recommendations	Decisions / Actions taken	BOS Recommendations
The members suggested to change the keywords of the following COs Structural Analysis CO2: Interpret the position of shear force and maximum bending moment in the structural elements. CO4: Experiment with beams, pin-jointed and rigid jointed plane frames using alternate methods.	It has been modified as, CO2: Illustrate the position of shear force and maximum bending moment in the structural elements. CO4: Solve with beams, pin-jointed and rigid jointed plane frames using alternate methods.	Confirmed
Fluid Mechanics & Hydraulic Machines CO5: Find the efficiency of hydraulic machines.	CO5: Determine the efficiency of hydraulic machines.	Confirmed
In survey camp the single CO may split into 3 COs	Single CO has been splitted into three COs as follows. CO1: Plot the ground profile by finding out the reduced level of various salient points on the ground. CO2: Surveying the field length, area, volume, counteracting and traversing. CO3: Easy handling of modern survey equipment	The action verb of the second course outcome for Survey Camp can be changed. The third CO can be altered.

03.03. Presentation of the proposed curriculum and getting recommendation for approval for the V semester core and vertical courses detailed draft syllabi of UG Programmes for regulation 2022

Suggestions for the Syllabus are as follows:

- The course “Prefabricated Structures” has only the basic topics. All the topics can be added in the units 1 to 4. Modern and application oriented topics and case studies on joints and connections can be included in Unit 5.
- In the lab experiments of the course “Design of Reinforced Concrete Elements”, no need to mention the software STAAD.Pro. The design can be done using any software. Short columns subjected to biaxial bending shall be added in unit 4.
- For 2 credit labs, 12 experiments shall be provided uniformly for all courses.
- In “Construction Management and Safety”, unit 4 “Designing for Safety Management” shall be changed as “Planning for Safety Management”.
- The topics in Unit 3 of “Repair and Rehabilitation of Structures” are already in Concrete Technology. Hence Unit 3 shall be reframed with the topics including Repair materials, Corrosion protection, avoiding cracks in water tanks, etc. Code books on corrosion and fire repairs shall also be included.
- In the course “Housing Planning and Management”, units 2 and 3 have similar topics. Hence, topics on building approvals, preparation of approval plans, building by-laws, etc. shall be added. In unit 4, “functions and performance evaluation” shall be corrected as “functional performance evaluation”. “Building Planning, Designing and Scheduling” by Gur Charen Singh shall be added as one of the reference books.
- In “Structural Geology”, topics on Mineralogy shall be added.
- Unit 4 of “Industrial Wastewater Management” can be changed.
- In “Open Channel Flow”, the first course objective shall be removed. CO1 shall be changed as the syllabus does not include fluid properties. The most economical rectangular, trapezoidal channels and condition for maximum velocity and discharge in circular channels shall be added.
- In “Advanced Fluid Mechanics”, the topics already covered in Fluid Mechanics can be changed. CO1 shall be changed. The book of Hermann Schlichting can be added as a reference book.
- In “Coastal Zone Management”, the title of unit 4 shall be changed. Unit 2 is vast. The title and contents of unit 5 shall be refined.
- The syllabus for the course “Fundamentals of Prestressed Concrete Design” is very vast. The title of the course does not match with the contents. Hence, either the content or the title can be changed.
- The course “Basics of Finite Element Analysis” shall be refined. The 5 units shall be changed as Introduction, One dimensional problems, Trusses, Two dimensional problems

and Numerical integration. The text book by Chandrupatla shall be referred. Importance of Finite Element Analysis shall also be included.

- The course title “Modern Method of Analysis” can be changed as “Modern Methods of Structural Analysis”. The title and content of unit 5 shall be replaced with Matlab.
- Unit 1 of the course “Bridge Engineering” is vast, it can be reduced.
- As the topics of the theory course “Computer Aided Design” were already studied in the syllabus, the course can be changed. BIM or electives related to Geotechnical Engineering can be added including substructure, sewage, and modern retaining wall designs.
- In “Advanced Surveying”, the topic DGPS shall be added in unit 2.
- In “Pavement Engineering”, the repeated topics from Highway Engineering shall be changed.
- In “Airports, Docks and Harbour Engineering”, the topics airport zones, passenger facilities and services from unit 2 shall be taken to unit 1. The topic Runway and Taxiway lighting shall be included in unit 2.
- In “Applications of Artificial Intelligence in Civil Engineering”, unit 5 shall be changed as Artificial Neural Network in Design Optimization. The topics shall include design or project scheduling or GIS.

Considering the above suggestions, the BOS recommended the curriculum and the syllabus of 5th semester core and vertical courses of UG programmes.

03.04. NPTEL Courses

List of identified NPTEL courses		
Vertical 1	Construction Engineering and Management	1. Maintenance and Repair of Concrete Structures
Vertical 2	Environment Engineering	1. Air pollution and Control 2. Industrial Wastewater Treatment
Vertical 3	Hydraulics and Hydrology	1. Groundwater hydrology and management 2. Surface Water Hydrology
Vertical 4	Structural Engineering	1. Finite Element Method 2. Structural Dynamics
Vertical 5	Diversified Courses	1. Remote Sensing and GIS for rural development

The members approved the above NPTEL courses.

03.05. Hard and Soft Skills to be acquired by Students at the end of Programme

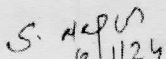
The lists of identified hard and soft skills were presented and the members suggested to the vocabulary of "Hard skills" content shall be rewritten in a holistic manner. The content shall not be semester-wise or subject-wise or in bullets.

03.06. Teaching methodologies, Assessment tools

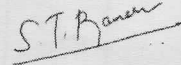
The members approved the above teaching methodologies and assessment tools presented in the meeting.

03.07. Other matters if any.

- For all topics in each course, a description on its application and its future use shall be given to the students.
- A video or PowerPoint presentation on the practical applications shall be shown.
- Lectures by industrialists shall be given on the topics such as Safety, Project management, etc.

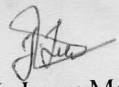

Dr. S. Nagan
(Anna University Nominee)

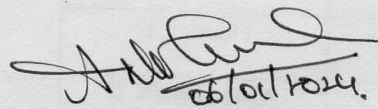

Dr. G. Prince Arulraj
(Academic Expert)


Dr. S.T. Ramesh
(Academic Expert)


Ms. T. PremaLatha
(Industry Expert)


Dr. C. Shermi
(Aluminous)


Dr. I. Jessy Mol
(HOD/ CIVIL)


Dr. R. P. Anto Kumar
(Dean Academics)


Dr. J. Maheswaran
(Principal)

External Members present:

S. No	Members as per UGC Norms	Members Nominated
1	One Expert nominated by the Vice Chancellor from a panel of six recommended by the college Principal	Dr. S. Nagan Professor, Department of Civil Engineering, Thiagarajar College of Engineering, Madurai.
2	One of the experts in the subject from outside the college nominated by the Academic Council	Dr.G. Prince Arulraj (Online) Professor and Vice Chancellor, Department of Civil Engineering, Karunya Institute of Technology and Sciences, Coimbatore, Tamil Nadu, India.
3	One representative from industry/corporate sector/allied area relating to placement	Ms. T. PremaLatha, Manager, Structural, Kavin Engineering and services Private Ltd, Coimbatore, Tamil Nadu, India.
4	One Post Graduate meritorious aluminous nominated by the Principal	Dr. C. Shermi Senior Scientist, Environment Technology Division, CSIR- Government of India, Trivandrum, Kerala.

Internal Members Present:

S. No	Name of the Member	Designation
1	Dr. I. Jessy Mol	Head, CE
2	Dr. J.Jerlin Regin	Asso. Prof/CE
3	Ms. S.Shiela Balanta	Asst. Prof/CE
4	Dr. P. Antony Vimal	Asst. Prof/CE
5	Mr. J.Jeya Suren Raj	Asst. Prof/CE
6	Mr. F. John Paul	Asst. Prof/CE
7	Ms. L. Porcia	Asst. Prof/CE

Ex-Officio members present:

S. No	EX OFFICIO MEMBERS	
1	Dr. J. Maheswaran	Principal, St. Xavier's Catholic College of Engineering, Chunkankadai.

