



DEPARTMENT OF CIVIL ENGINEERING

Date: 06.04.2023

Minutes of Board of Studies Meeting

Board of Studies (BoS) meeting for M. Tech Structural Engineering programme was conducted on 01.04.2023 in virtual mode from 2:00 P.M onwards in AFF-10, First floor, U-Block, VFSTR. All the internal members of VFSTR attended the meeting in person while all the external members participated the meeting virtually with link.

Google meet link: <https://meet.google.com/uum-yieg-azx>.

Agenda of the BoS Meeting:

1. To Discuss and finalize the curriculum structure and detailed syllabus of M. Tech – Structural Engineering for the regulation 2022.
2. To approve the R22 curriculum and syllabus of M. Tech- Structural Engineering and recommend to the Academic council.
3. Any other points with the permission of Chair.

The following members were present either through online or offline

S. No	Name and Designation of member	Position	Signature
1	Dr. M. Karthikeyan, Associate Professor & HoD, Department of Civil Engineering, VFSTR	Chairperson	 6/4/2023
2	Mr. K. Bala Gopi Krishna, Assistant Professor, Department of Civil Engineering, VFSTR.	Member & Secretary	 6/4/23
3	Prof. G. Apparao Department of Civil Engineering, IIT Madras Phone No: 9444047421 Email: garao@iitm.ac.in	External Member	Attended Online
4	Prof. K. Srinivasa Raju Department of Civil Engineering, BITS Pilani, Hyd Phone No: 9010820742 Email: ksraju@hyderabad.bits-pilani.ac.in	External Member	Attended Online

5	Dr. V. Purna Chandra Rao, Professor & Scientist Department of Civil Engineering, VFSTR	Internal Member	Attended Online
6	Dr. A. Siva Sankar, Professor Department of Civil Engineering, VFSTR	Internal Member	<i>A. Siva Sankar</i>
7	Dr. D. Satish Chandra, Associate Professor Department of Civil Engineering, VFSTR	Internal Member	<i>Dr. D. Satish Chandra</i>
8	Dr. M. V. Raju, Assistant Professor, Dy Head Department of Civil Engineering, VFSTR	Member & Dean R&D Nominee	<i>M. V. Raju</i>
9	Dr. P. Parthiban, Assistant Professor. Department of Civil Engineering, VFSTR	Member & School Dean Nominee	<i>P. Parthiban</i>
10	Dr. Shashi Narayan Department of Civil Engineering, NITUK Phone No: 9760000479 Email: shashi@nituk.ac.in	Special Invitee	Attended Online

In the beginning of the meeting the Chairperson of the BoS, Dr. M. Karthikeyan, Associate Professor and Head, Department of Civil Engineering, VFSTR opened the meeting by welcoming and introducing the external members, invitees to the internal members and briefed them about the progress of the department.

Chairperson presented about the NEP 2020 Compliant Regulation – R22 which emphasis on creating learning centric (Continuous learning and continuous assessment model offering M. Tech Structural Engineering Program)

The BoS members expressed their highly appreciation and satisfaction about:

- Revision in tune with NEP 2020.
- Module wise course syllabus.
- Assessment pattern.

The following points were discussed in the BoS meeting:

1. Regulation R22 M. Tech Structural Engineering curriculum with credits, credit structure.
2. Two modules instead of five units.
3. Assessment methods. (Formative and Summative)
4. Electives.

The following resolutions made after the discussion:

1. BoS Members approved the revised regulations, curriculum structure, syllabus of M. Tech-Structural Engineering and it follows based on the NEP 2020. Curriculum structure is provided in Appendix-A.
2. Major restructuring has taken place in the curriculum which is oriented towards continuous learning and assessment based on Module structure.
3. The curriculum is encompassing the courses that enable employability or entrepreneurship or skill development provided in Appendix- B.
4. The significant changes are made in the content of all courses and hence the courses are considered as new courses provided in Appendix- C.
5. Total average percentage of syllabus revised was 55.34% compared to previous curriculum.
6. The curriculum follows choice-based credit system.

Based on the suggestions given by the members, the Chairperson of BoS told that, those fruitful suggestions would be incorporated appropriately in the curriculum and syllabus of the regulation R22 and this will be recommended to the Academic Council of VFSTR for the approval.

There being no further points for discussion, the Chairperson thanks all the external, internal, invited members and announced that the meeting was adjourned.

J. Bala Gopi Krishna
Member Secretary 6/4/23

M. G. S. S. S.
6/4/2023
Chairperson



DEPARTMENT OF CIVIL ENGINEERING
APPENDIX - A

M. Tech Structural Engineering Programme: Curriculum Structure

I Year I Semester

Course Code	Course title	L	T	P	C
22SEB101	Numerical Methods in Civil Engineering	3	2	-	4
22SEB102	Structural Dynamics	3	2	-	4
22SEB103	Theory of Elasticity and Plasticity	3	2	-	4
	Department Elective - 1	2	2	-	3
	Department Elective - 2	2	2	-	3
22CYB101	Cyber Security	-	2	2	2
22SAB101	Employment Orientation Program	-	2	2	2
	Grand Total	13	14	04	22
			31		

I Year II Semester

Course Code	Course title	L	T	P	C
22SEB104	Advanced Reinforced Concrete Design	3	-	2	4
22SEB105	Finite Element Analysis	3	-	2	4
	Department Elective - 3	2	2	-	3
	Department Elective - 4	2	2	-	3
22MSB101	Research Methodology & IPR	-	2	2	2
22SEB106	Interdepartmental Project	-	1	3	2
22SEB107	Teaching Assistantship	-	-	4	2
	Total	10	7	13	20
	Add-on Certification Course - 1	3	-	2	4
	Grand Total	13	7	15	24
			35		

II Year I Semester

Course Code	Course title	L	T	P	C
22CEB108/22SEB109	Internship/Project	-	2	24	-
	Add-on Certification Course - 2	4	-	-	4
	Grand Total	4	2	24	4
		30			

II Year II Semester

Course Code	Course title	L	T	P	C
22CEB110/22SEB111	Internship/ Project	-	2	24	26
	Add-on Certification Course - 3	4	-	-	4
	Grand Total	4	2	24	30
		30			

L=Lecture; T= Tutorial; P= Practical; C=Credits

Department Elective Courses

Course Code	Course title	L	T	P	C
22SEB801	Repair and Rehabilitation of Structures	2	2	-	3
22SEB802	Advanced Concrete Technology	2	-	2	3
22SEB803	Advanced Design of Steel Structure	2	2	-	3
22SEB804	Experimental Stress Analysis	2	2	-	3
22SEB805	Structural Optimization	2	2	-	3
22SEB806	Advanced Pre-stressed Concrete	2	2	-	3
22SEB807	Bridge Engineering	2	2	-	3
22SEB808	Design of Tall Structures	2	2	-	3
22SEB809	Stability of Structures	2	2	-	3
22SEB810	Advanced Composite Structures	2	2	-	3
22SEB811	Earthquake Resistant Design of Structures	2	2	-	3

22SEB812	Theory of Plates and Shells	2	2	-	3
22SEB813	Fracture Mechanics	2	2	-	3
22SEB814	Advanced Foundation Engineering	2	2	-	3
22SEB815	Fibre Reinforced Polymers	2	2	-	3
22SEB816	Design of Under Ground Structures	2	2	-	3
22SEB817	Prefabricated Structures	2	2	-	3



Chairperson



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APPENDIX - B

List of Courses that Enables Employability or Entrepreneurship or Skill Development

S. No.	Year and Semester	Course Title	Employability / Entrepreneurship / Skill development
1.	I Year I Semester	Numerical Methods in Civil Engineering	Skill development
2.	I Year I Semester	Structural Dynamics	Skill development
3.	I Year I Semester	Theory of Elasticity and Plasticity	Skill development
4.	I Year I Semester	Cyber Security	Employability
5.	I Year I Semester	Employment Orientation Program	Employability
6.	I Year II Semester	Advanced Reinforced Concrete Design	Skill development
7.	I Year II Semester	Finite Element Analysis	Skill development
8.	I Year II Semester	Research methodology & IPR	Skill development
9.	I Year II Semester	Interdepartmental Project	Entrepreneurship
10.	I Year II Semester	Teaching Assistantship	Employability
11.	II Year	Project	Employability
12.	II Year	Internship	Employability
13.	Dept. Elective	Advanced Design of Steel Structure	Skill development
14.	Dept. Elective	Repair and Rehabilitation of Structures	Employability
15.	Dept. Elective	Advanced Concrete Technology	Skill development
16.	Dept. Elective	Experimental Stress Analysis	Skill development
17.	Dept. Elective	Structural Optimization	Skill development
18.	Dept. Elective	Advanced Pre-stressed Concrete	Skill development
19.	Dept. Elective	Bridge Engineering	Skill development
20.	Dept. Elective	Design of Tall Structures	Skill development
21.	Dept. Elective	Stability of Structures	Skill development
22.	Dept. Elective	Advanced Composite Structures	Skill development
23.	Dept. Elective	Earthquake Resistant Design of Structures	Skill development
24.	Dept. Elective	Theory of Plates and Shells	Skill development

25.	Dept. Elective	Fracture Mechanics	Skill development
26.	Dept. Elective	Advanced Foundation Engineering	Skill development
27.	Dept. Elective	Fibre Reinforced Polymers	Skill development
28.	Dept. Elective	Design of Under Ground Structures	Skill development
29.	Dept. Elective	Prefabricated Structures	Employability


Chairperson



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APPENDIX - C

List of New Courses in the R22 Curriculum

S. No.	Year and Semester	Course Title
1.	I Year I Semester	Numerical Methods in Civil Engineering
2.	I Year I Semester	Structural Dynamics
3.	I Year I Semester	Theory of Elasticity and Plasticity
4.	I Year I Semester	Cyber Security
5.	I Year I Semester	Employment Orientation Program
6.	I Year II Semester	Advanced Reinforced Concrete Design
7.	I Year II Semester	Finite Element Analysis
8.	I Year II Semester	Research methodology & IPR
9.	I Year II Semester	Interdepartmental Project
10.	I Year II Semester	Teaching Assistantship
11.	II Year	Project
12.	II Year	Internship
13.	Dept. Elective	Advanced Design of Steel Structure
14.	Dept. Elective	Repair and Rehabilitation of Structures
15.	Dept. Elective	Advanced Concrete Technology
16.	Dept. Elective	Experimental Stress Analysis
17.	Dept. Elective	Structural Optimization
18.	Dept. Elective	Advanced Pre-stressed Concrete
19.	Dept. Elective	Bridge Engineering
20.	Dept. Elective	Design of Tall Structures
21.	Dept. Elective	Stability of Structures
22.	Dept. Elective	Advanced Composite Structures
23.	Dept. Elective	Earthquake Resistant Design of Structures
24.	Dept. Elective	Theory of Plates and Shells

25.	Dept. Elective	Fracture Mechanics
26.	Dept. Elective	Advanced Foundation Engineering
27.	Dept. Elective	Fibre Reinforced Polymers
28.	Dept. Elective	Design of Under Ground Structures
29.	Dept. Elective	Prefabricated Structures


Chairperson



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APPENDIX - D

List of New Courses in the R22 Curriculum

S. No.	Year and Semester	Course Title	Percentage change of syllabus
1.	I Year I Semester	Numerical Methods in Civil Engineering	25%
2.	I Year I Semester	Structural Dynamics	30%
3.	I Year I Semester	Theory of Elasticity and Plasticity	30%
4.	I Year I Semester	Cyber Security	100%
5.	I Year I Semester	Employment Orientation Program	60%
6.	I Year II Semester	Advanced Reinforced Concrete Design	30%
7.	I Year II Semester	Finite Element Analysis	30%
8.	I Year II Semester	Research methodology & IPR	50%
9.	I Year II Semester	Interdepartmental Project	100%
10.	I Year II Semester	Teaching Assistantship	100%
11.	II Year	Project	50%
12.	II Year	Internship	50%
13.	Dept. Elective	Advanced Design of Steel Structure	35%
14.	Dept. Elective	Repair and Rehabilitation of Structures	30%
15.	Dept. Elective	Advanced Concrete Technology	25%
16.	Dept. Elective	Experimental Stress Analysis	100%
17.	Dept. Elective	Structural Optimization	100%
18.	Dept. Elective	Advanced Pre-stressed Concrete	20%
19.	Dept. Elective	Bridge Engineering	20%
20.	Dept. Elective	Design of Tall Structures	20%
21.	Dept. Elective	Stability of Structures	25%
22.	Dept. Elective	Advanced Composite Structures	25%
23.	Dept. Elective	Earthquake Resistant Design of Structures	25%
24.	Dept. Elective	Theory of Plates and Shells	25%

25.	Dept. Elective	Fracture Mechanics	100%
26.	Dept. Elective	Advanced Foundation Engineering	100%
27.	Dept. Elective	Fibre Reinforced Polymers	100%
28.	Dept. Elective	Design of Under Ground Structures	100%
29.	Dept. Elective	Prefabricated Structures	100%


Chairperson