VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be University)

DEPARTMENT OF CIVIL ENGINEERING

Departmental Meeting Minutes

Dt.: 03-03-2020

Minutes of Board of Studies meeting for M.Tech Structural Engineering held on 03rd March 2020 in AFF-10, Gallery Hall, First Floor,U Block under the Chairmanship of Dr. N. Ruben, HoD, Department of Civil Engineering, VFSTR Deemed to be University.

Members attended:

Name	Designation	Signature
Er. C. Sankarlingam	Vice-President & Head-Special Projects, L&T Construction, Chennai.	
Dr. D. Ramaseshu	Professor, Department of Civil Engineering, National Institute of Technology, Warangal.	
Dr. D. V. Prasada Rao	Professor, Department of Civil Engineering, Sri Venkateswara University, Tirupathi.	
Dr. N. Ruben	Associate Professor and HoD	
Dr. M. Karthikeyan	Associate Professor	
Dr. P. Parthiban	Assistant Professor	
Mr. B.J.N Satish	Assistant Professor	
Ms. B. Ravali	Assistant Professor	B. Ravali

VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be University)

DEPARTMENT OF CIVIL ENGINEERING

Agenda:

The following are the agenda points:

1. Finalization of Courses
2. Suggestions to be included in R20 Curriculum
3. Details of External BoS Members

Following points were discussed

- Dr. N. Ruben, Head of the Department, initiated the meeting with an introductory note.
- Dr. M. Karthikeyan, Assistant Professor and M. Tech Coordinator, addressed about the course structure proposed by University.
- Dr. D. V. Prasad Rao, suggested that some core courses like Theory of Elasticity, Stability of Structures and Structural Dynamics.
- For Numerical Methods, Dr. D. V. Prasad Rao suggested MAT LAB lab course.
- Er. C. Sankarlingam, suggested Theory of Plates and Shells, Structural Health Monitoring, Reapair and Rehabilitation of Structures, Design of Underground and Marine Structures are to be included in Pool of electives.
- Along with the above courses, Er. C. Sankarlingam also suggested including Box and Steel Girders, Long Span-Balanced Cantilever and Cable stayed bridges in Bridge Engineering Course.
- Prof. P. N. K. Rao, suggested to include Fracture Mechanics, Repair and Rehabilitation of Structures, Soil Structure Interaction instead of Ground Improvement Techniques and Construction Laws and Appraisal.
- Er. C. Sankarlingam, explained the importance of Design of Underground Structures, Advanced Design of Steel Structures, Box and Steel girders, Long Span Bridges in current technical and constructional aspects.
- Dr. D. Rama Seshuexpressed his views on Pre-Fabricated Constructions and also suggested to include Pre-Engineered Buildings as elective course and Management softwares like Primavera in Mini Project.

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Foundation for Science, Technology & Research
(Deemed to be University)

DEPARTMENT OF CIVIL ENGINEERING

Outcomes:

1. BoS members approved the revised curriculum (Structure, Syllabus and regulations) of M.Tech, Structural Engineering with percentage revision of 25% and it follows Choice Based Credit System. Structure is provided in Appendix A.
2. Major restructuring has taken place in the Curriculum with theory courses integrated with laboratory sessions.
3. All the Courses in the Curriculum are designed to fall under either of the domains of employability (or) skill development (or) Entrepreneurship. The mapping of the courses with employability or skill development is provided in Appendix B.
4. In all the courses of the revised curriculum (R20) substantial changes are made in the and the list of new courses is provided in Appendix C.
5. Stake holders feedback is collected, analyzed and implemented while designing the curriculum.

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(Deemed to be University)

DEPARTMENT OF CIVIL ENGINEERING

Appendix A
R20 Course Structure -M.Tech(Structural Engineering)

I Year-I Semester

S.No	Course Title	L	T	P	C
1.	Theory of Elasticity and Plasticity	3	1	2	5
2.	Structural Dynamics	3	1	2	5
3.	Numerical Methods in Civil Engineering	3	0	0	3
		Total Core Credits			13
4.	Departmental Elective -1	3	0	0	3
5.	Minor/Mini Project	0	0	4	2
6.	Audit Course				0
Total Elective Credits					5
Total Semester Credits					18

I Year-II Semester

S.No	Course title	L	T	P	C
1.	Research Methodology and IPR	2	0	0	2
2.	Employment Orientation Program (EOP)	2	0	0	2
3.	Advanced Reinforced Concrete Design	3	1	2	5
4.	Finite Element Analysis	3	1	2	5
		Total Core Credits			14
5.	Departmental Elective -2	3	0	0	3
6.	Departmental Elective -3	3	0	0	3
7.	Audit Course				0
8.	Societal Centric/Industrial Orientated Project			4	2
Total Elective Credits					8
Total Semester Credits					22

II Year-I Semester

S.No	Course Title	L	T	P	C
1.	Dissertation – Phase I	0	0	20	10
2.	MOOC's Course- 1(Inter-disciplinary)	3	0	0	3
3.	MOOC's Course- 2 (Inter-disciplinary	3	0	0	3
Total Core Credits					16

VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be University)

DEPARTMENT OF CIVIL ENGINEERING

II Year –II Semester

S.No	Course Title	L	T	P	C
	Dissertation – Phase II	0	0	32	16
Total Core Credits					16

The courses that are highlighted denote implementation of '**Choice Based Credit System (CBCS)**'

POOL OF ELECTIVES

S. No	Course Title	Credits
1	Advanced Concrete Technology	3
2	Structural Optimization	3
3	Experimental Stress Analysis	3
4	Advanced Pre-stressed Concrete	3
5	Bridge Engineering	3
6	Design of Tall Structures	3
7	Repair and Rehabilitation of Structures	3
8	Stability of Structures	3
9	Advanced composite structures	3
10	Earthquake Resistant Design of Structures	3
11	Advanced Design of Steel Structure	3
12	Theory of plates and Shells	3
13	Fracture mechanics	3
14	Advanced Foundation Engineering	3
15	Fibre reinforced Polymers	3
16	Design of Under Ground Structures	3
17	Project Formulation and Legal aspects	3
18	EIA for Green Building	3

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DEPARTMENT OF CIVIL ENGINEERING

APPENDIX – B

List of courses that enable employability or entrepreneurship or skill development in the R-20

M.Tech – Structural Engineering

Sl.	Course Name	Employability / Skill Development/ Entrepreneurship
1	Theory of Elasticity and Plasticity	Skill development
2	Structural Dynamics	Skill development
3	Numerical Methods in Civil Engineering	Skill development
4	Research Methodology and IPR	Skill development
5	Employment Orientation Program (EOP)	Employability
6	Advanced Reinforced Concrete Design	Skill development
7	Finite Element Analysis	Skill development
8	Societal Centric/Industrial Orientated Project	Employability
9	Advanced Concrete Technology	Skill development
10	Structural Optimization	Skill development
11	Experimental Stress Analysis	Skill development
12	Advanced Pre-stressed Concrete	Skill development
13	Bridge Engineering	Employability
14	Design of Tall Structures	Skill development
15	Repair and Rehabilitation of Structures	Employability
16	Stability of Structures	Skill development

VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be University)

DEPARTMENT OF CIVIL ENGINEERING

17	Advanced composite structures	Skill development
18	Earthquake Resistant Design of Structures	Skill development
19	Advanced Design of Steel Structure	Skill development
20	Theory of plates and Shells	Skill development
21	Fracture mechanics	Skill development
22	Advanced Foundation Engineering	Skill development
23	Fibre reinforced Polymers	Skill development
24	Design of Under Ground Structures	Skill development
25	Project Formulation and Legal aspects	Skill development
26	EIA for Green Building	Skill development
27	Advanced Concrete Technology	Skill development
28	Minor/Mini Project	Skill development
29	Dissertation – Phase I	Entrepreneurship
30	MOOC's Course- 1(Inter-disciplinary)	Skill development
31	MOOC's Course- 2 (Inter-disciplinary	Skill development
32	Dissertation – Phase II	Entrepreneurship

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(Deemed to be University)

DEPARTMENT OF CIVIL ENGINEERING

APPENDIX – C

List of new courses in the R-20 Regulations

M. Tech- Structural Engineering

Sl.	Course Name	Employability / Skill Development/ Entrepreneurship
1	Theory of Elasticity and Plasticity	Skill development
2	Structural Dynamics	Skill development
3	Numerical Methods in Civil Engineering	Skill development
4	Research Methodology and IPR	Skill development
5	Employment Orientation Program (EOP)	Employability
6	Advanced Reinforced Concrete Design	Skill development
7	Finite Element Analysis	Skill development
8	Societal Centric/Industrial Orientated Project	Employability
9	Advanced Concrete Technology	Skill development
10	Structural Optimization	Skill development
11	Experimental Stress Analysis	Skill development
12	Advanced Pre-stressed Concrete	Skill development
13	Bridge Engineering	Employability
14	Design of Tall Structures	Skill development
15	Repair and Rehabilitation of Structures	Employability
16	Stability of Structures	Skill development
17	Advanced composite structures	Skill development

VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be University)

DEPARTMENT OF CIVIL ENGINEERING

18	Earthquake Resistant Design of Structures	Skill development
19	Advanced Design of Steel Structure	Skill development
20	Theory of plates and Shells	Skill development
21	Fracture mechanics	Skill development
22	Advanced Foundation Engineering	Skill development
23	Fibre reinforced Polymers	Skill development
24	Design of Under Ground Structures	Skill development
25	Project Formulation and Legal aspects	Skill development
26	EIA for Green Building	Skill development
27	Advanced Concrete Technology	Skill development
28	Minor/Mini Project	Skill development
29	Dissertation – Phase I	Entrepreneurship
30	MOOC's Course- 1(Inter-disciplinary)	Skill development
31	MOOC's Course- 2 (Inter-disciplinary	Skill development
32	Dissertation – Phase II	Entrepreneurship

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