



ADITYA ENGINEERING COLLEGE

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Aditya Nagar, ADB Road, Surampalem - 533437, Near Kakinada, E.G.Dt., Ph:99498 76662

Program Name : M.Tech. in Structural Engineering

Syllabus Revision for the Academic Year 2021-2022

S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	192ST1T01	Theory of Elasticity	0
2	I	192ST1T02	Structural dynamics	0
3	I	192ST1T03	Advanced Concrete Technology	0
4	I	192ST1E03	Design of RCC Foundations	0
5	I	192ST1E01	Matrix Analysis of Structures	0
6	I	192ST1E02	Analytical & Numerical Method for Structural Engineering	0
7	I	192ST1E05	Repair & Rehabilitation of Structures	0
8	I	192ST1E04	Bridge Engineering	20
9	I	192ST1E06	Advanced Reinforced Concrete Design	0
10	I	192ST1L01	Advanced Concrete Technology Laboratory	0
11	I	192ST1L02	Advanced Structural Engineering Laboratory	0
12	II	192ST2T04	Finite Element Methods in Structural Engineering	0
13	II	192ST2T05	Theory of Plates and Shells	0
14	II	192ST2E07	Stability of Structures	0
15	II	192ST2E08	Advanced Steel Design	0
16	II	192ST2E09	Analysis of offshore Structures	0
17	II	192ST2E10	Earthquake Resistant Design of Buildings	0
18	II	192ST2E11	Precast and Prefabricated Structures	0
19	II	192ST2E12	Earth Retaining Structures	0
20	II	192ST2L03	Computer Aided Design Laboratory	0
21	II	192ST2L04	Structural Design Laboratory	0
22	II	192ST2P01	Mini Project With Seminar	0


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24	I/II	192MC1A02/192MC2A02	Disaster Management	0
25	I/II	192MC1A03/192MC2A03	Sanskrit for Technical Knowledge	0
26	I/II	192MC1A04/192MC2A04	Value Education	0
27	I/II	192MC1A05/192MC2A05	Constitution of India	0
28	I/II	192MC1A06/192MC2A06	Pedagogy Studies	0
29	I/II	192MC1A07/192MC2A07	Stress Management by Yoga	0
30	I/II	192MC1A08/192MC2A08	Personality Development through Life Enlightenment Skills	0
31	I/II	192MC1A09/192MC2A09	Soft Skills	0
32	III	192ST3E13	Design of Pre-stressed Concrete structures	0
33	III	192ST3E14	Structural Health Monitoring	0
34	III	192ST3E15	Industrial Structures	20
35	III	19STMOOC1	MOOCS-I*	0
36	III	---	MOOCs-II #	0
37	III	192PD3O01	Renewable Energy Technologies	0
38	III	192PD3O02	Hybrid Electric Vehicles	0
39	III	192PD3O03	Energy Audit and conservation Management	0
40	III	192PD3O04	Neural Networks and Fuzzy Logic	0
41	III	192PD3O05	Industrial Safety	0
42	III	192PD3O06	Composite Materials	0
43	III	192TE3O01	Energy Systems	0
44	III	192TE3O02	Fuels and Combustion	0
45	III	192TE3O04	IC Engines	0
46	III	192TE3O05	Automotive Technology	0
47	III	192ES3O01	Embedded System Design	0
48	III	192ES3O02	Digital System Design	0
49	III	192ES3O03	Programming Languages for Embedded Systems	0
50	III	192ES3O04	Sensors & Actuators	0
51	III	192VD3O01	Physical Design Automation	0

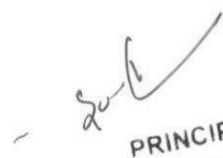
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53	III	192VD3O03	Nano-electronics	0
54	III	192CS3O01	Python Programming (CSE)	0
55	III	192CS3O02	Principles of Cyber Security	0
56	III	192CS3O03	Internet of Things	0
57	III	192CS3O04	Machine Learning	0
58	III	192CS3O05	Artificial Intelligence	0
59	III	192CS3O06	Deep Learning	0
60	III	192PE3O01	Introduction to Petroleum Engineering	0
61	III	192PE3O02	Process Intensification	0
62	III	192PE3O03	Fundamentals of Liquefied Natural Gas	0
63	III	192PE3O04	Subsea Engineering	0
64	III	192PE3O06	HSE in Petroleum Industry	0
65	III	192ST3P02	Dissertation-I/ Industrial Project	0
66	IV	192ST4P03	Dissertation – II	0
Total number of courses in the academic year 2021-2022				= 66
Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2021-2022				= 02
Percentage of syllabus revision carried out in the academic year 2021-2022 = $(02/66)*100$				= 3.03%


Program Coordinator


Head of the Department

Head of the Department
Dept. of Civil Engineering
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Department of Civil Engineering

Date: 20-04-2022

Minutes of the VIII meeting of BOS scheduled on 18-04-2022

The VIII meeting of the BOS of Civil Engineering was held virtually on 18-04-2022 by 10:00 AM via Microsoft teams. Mr. P.Ravi Kishore, Chairperson presided over the meeting.

Agenda 8.1: Welcome address by Chairperson

Mr. P. Ravi Kishore, Chairperson of BOS, invited all the distinguished members of BOS to the VIII BOS meeting.

Agenda 8.2: Ratification of minutes of the previous Board of Studies meeting.

- Discussed regarding the minutes of the previous board of studies meeting held on 07-10-2021 and the members have ratified the same.

Agenda 8.3: Discussion on proposed AR20 B.Tech (CE) Program – V, VI, VII & VIII semesters syllabus and ratification of the same.

The BOS members approved the V, VI, VII & VIII semesters syllabus of AR20 B.Tech, after suggesting the following changes–

- Structural Engineering track
Concrete Technology:
 - Suggested to include NDT and durability in the syllabus
 - Suggested to include Textbook by S. RamamruthamConstruction Technology and Management: Suggested to include pre-cast element
Construction Materials and Equipment: Suggested to include nano aggregates and Recycled Concrete Aggregate (RCA)
Basic Concrete Technology: Suggested to include anti-wash concrete
- Transportation Engineering track
Pavement Construction Maintenance and Management:
Suggested to include median of road
- Environmental Engineering track
 - Professional Electives:
PE 1 EPC: 1. Suggested to include acts related to environment
2. Suggested to prescribe an Indian author book
- Theory:
Environmental Engineering: Suggested to include IS 456- 2000 standards for quality of water for Constructional activities

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Agenda 8.4: Discussion on proposed syllabus for courses in V to VIII semester under AR20 Honors & Minor degree and ratification of the same.

- BOS Chairman explained the detailed programme structure of AR20 B.Tech (CE) Including Regular, Honours, Minor degree B.Tech Programmes

Agenda 8.5: Discussion on the value-added courses to be offered for the students and ratification of the same.

- BoS members approved the list of value-added courses offered to students.
- 6 Value added courses are discussed from various online platforms like Course Era, Land T EdTech and Udemy and finalized the same.

Agenda 8.6: Discussion on the courses having focus on Employability/entrepreneurship/skill development in the programs of AR19 B.Tech (CE) and M.Tech,(Structural Engineering) and ratification of the same.

- The members of BOS ratified the courses having focus on employability/entrepreneurship/skill development in the AR 19 B.Tech (CE) , and M.Tech (Structural Engineering) program.

Agenda 8.7: Discussion on the new courses offered in the B.Tech (CE) and M.Tech (Structural Engineering) programs and ratification of the same

- Members of BOS noted the new courses offered in the AR19 B.Tech (CE) and M.Tech (Structural Engineering) programs and ratified the same. The percentage of new courses introduced in the academic year 2021-22 for B.Tech (CE) is 14.43%. The list of new courses during the academic year 2021-2022 enclosed as Annexure-I.

Agenda 8.8: Discussion on the percentage of syllabus revision done in the B.Tech (CE) and M.Tech (Structural Engineering) programs and ratification of the same.

- The syllabus revision was done in B.Tech (CE) & M. Tech (Structural Engineering) program based on the stakeholder's feedback on Curriculum. The BoS members have approved and ratified all the syllabus revisions in B.Tech (CE)& M.Tech (Structural Engineering). The percentage of courses revised in this academic year 2021-22 for B.Tech (CE) is 41.72 % and M.Tech(Structural Engineering) is 3.03%.The list of courses revised is enclosed as Annexure-II.

Agenda 8.9: Discussion on the B.Tech (CE) and M.Tech (Structural Engineering) Programmes in which Choice Based Credit System (CBCS)/elective course system is being implemented and ratification of the same.

- Members of BOS ratified the Choice Based Credit System (CBCS)/elective course system that is being implemented in B.Tech (CE) and M.Tech (Structural Engineering) programs.

Agenda 8.10: Analysis of the feedback on curriculum from stakeholders

- The BOS Chairperson presented the analysis report of stakeholders' feedback on Curriculum. The BOS members noted the same and advised to incorporate the suggestions as per the feasibility. The Action Taken Report is enclosed as Annexure-III.

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Agenda 8.11: Analysis of Results of the odd semester of the academic year 2021-22.

- The BOS Chairperson presented the even and odd semesters pass percentage of the A.Y. 2021-2022. The BOS members noted the same.

Agenda 8.12: Analysis of student feedback in the odd semester of the academic year 2021-22.

- BOS Chairperson expressed that the student feedback & action taken report process was initiated at end of each semester. The BOS members noted the same.
- BoS members suggested to present the students results in grade wise and subject wise. And also, to present the number of students who cleared all the subjects at the first attempt.

Agenda 8.13: Any other item with the approval of Chairperson.


- Discussed about Industry 4.0 and identification of related courses
- Discussed about integrated lab and theory courses of which 30 to 40% are through online platform
- Ways to improve GATE rankers among students

Agenda 8.14: Scheduling of next Board of Studies meeting.

- The next BOS meeting is tentatively scheduled in the month of November 2022.

Agenda 8.15: Vote of Thanks.

- Vote of thanks was presented by Mr. P. Ravi Kishore BOS Chairperson.


BOS Chairperson
Head of the Department
Dept. of Civil Engineering
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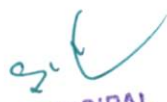
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Annexure I

List of new courses in the academic year 2021-2022

S. No	Program	Semester	Course Code	Course Name
1.	B. Tech (CE)	V	191PR5P02	Socially Relevant Project
2.	B. Tech (CE)	III	201SC3L01	Computer Aided Drafting Lab
3.	B. Tech (CE)	IV	201SC4L13	3D Modeling using Revit
4.	B. Tech (CE)	V	191CE5E04	Subsurface Investigation and Instrumentation
5.	B. Tech (CE)	V	191CE5E01	Airport Planning and Design
6.	B. Tech (CE)	V	191CE5E03	Environmental Pollution and Control
7.	B. Tech (CE)	V	191CE5O01	Basic Concrete Technology
8.	B. Tech (CE)	VI	191CE6E09	Railway Engineering
9.	B. Tech (CE)	VI	191CE6E08	Hydropower Development
10.	B. Tech (CE)	VI	191CE6E12	Expansive Soils
11.	B. Tech (CE)	VI	191CE6E11	Docks and Harbour Engineering
12.	B. Tech (CE)	VI	191CE6E15	Water Resources System Analysis
13.	B. Tech (CE)	VI	191CE6E14	Industrial Waste & Waste-Water Engineering
14.	B. Tech (CE)	VI	191CE6O02	Disaster Management


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Annexure II

List of courses revised in the academic year 2021-2022

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (CE)	V	191CE5T09	Irrigation & water resource Engineering
2	B. Tech (CE)	V	191CE5E02	Construction Technology & Management
3	M. Tech (Structural Engineering)	III	192ST3E15	Industrial Structures
4	M. Tech (Structural Engineering)	III	192ST1E04	Bridge Engineering

BOS Chairperson
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DEPARTMENT OF CIVIL ENGINEERING

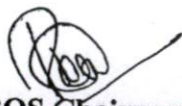
Annexure III


Action taken report on Stakeholders Feedback in the Academic Year 2021-2022

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1	8.6	Student's exposure to practice a land field knowledge.	Students has been taken to industrial visit to Yeleswaram dam and field trip on geology
		Conduct programming skills training for students to prepare them for interviews.	We have already implemented a training program.
		Trained the students in programming skills so that they can confidently face the technical interview.	We are providing training for placement jobs and will gradually increase training sessions.
2	8.4	Inclusion of minor degree sandhon our courses	For 3 rd and 4 th year B.Tech (AR20) students shall complete at least four subjects selected from four different specializations to get B.Tech Honors.
	8.13	It is preferable to offer GATE classes after college hours or during summer vacation.	The Civil Department is organizing GATE training for students who are eager to learn.
	8.5	Introduced software for steel structure design, such as TEKLA.	As per suggestions we will focus on software's which are related to steel structures.
3	8.5	Suggested to conduct on value-added course in odd semester and another value-added course in even semester.	In odd semester "Structural Design of RC Buildings Using Eas", In even semester "2D & 3D Modelling Using Google Sketch Up" along with academics conducted.
	8.13	The curriculum should be revised and follow the Engineering Service Examination and the GATE exam syllabus.	Step by step, we are upgrading the syllabus.
	8.6	organize a workshop to discuss ways to improve the teaching and learning process	Based on your suggestions, we will create workshop schedules.

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4	8.6	Improve communication skills & employability caliber in students	Conducting communications skills & budget tests under the guidance of Technical Hub of Aditya Educational Institutions, Surampalem with continuous monitoring.
	8.3	Students must receive advanced surveying training in order to increase practical knowledge and use the most up-to-date tools in the field of civil engineering.	Total station camp report submission was introduced in the third year of the B.Tech program as a means of improving students' practical knowledge approach to solving domain problems.
	8.3	Include all related basic engineering subjects in the first year and allow for branch change options in the second year.	We will consult with college administration based on the feedback we have received.


BOS Chairperson
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