

SETHU INSTITUTE OF TECHNOLOGY

An Autonomous Institution

Pulloor - 626 115, Kariapatti, Virudhunagar District.

DEPARTMENT OF CIVIL ENGINEERING



B.E CIVIL ENGINEERING

CHOICE BASED CREDIT SYSTEM

REGULATION 2019

MINUTES OF 8th BOARD OF STUDIES MEETING

HELD ON 17.09.2020

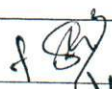

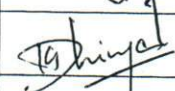
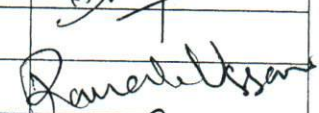
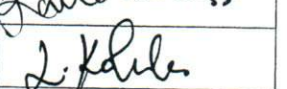
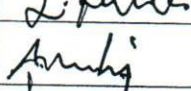
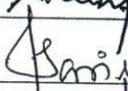
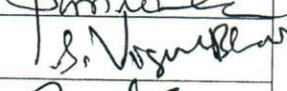
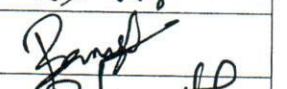
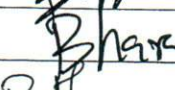
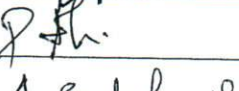
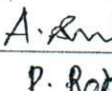

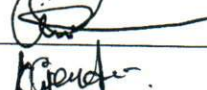
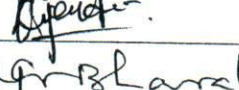
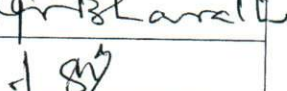

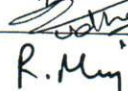
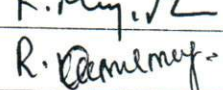
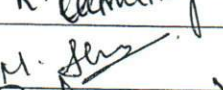
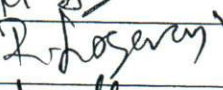
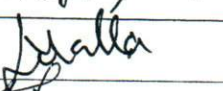
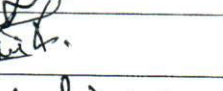
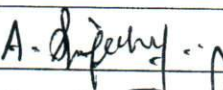
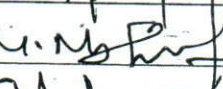
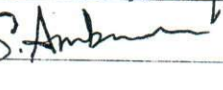




SETHU INSTITUTE OF TECHNOLOGY
(An Autonomous Institution)
DEPARTMENT OF CIVIL ENGINEERING

ATTENDANCE SHEET OF 8TH MEETING OF BOARD OF STUDIES HELD ON 17.09.2020

The Eighth of Board of Studies Meeting was held on 17.09.2020 in the Microsoft teams Platform Department of Civil Engineering. The following members were present:

S.No	Name of the Faculty Member	Position	Signature
1.	Dr.B.Jeyaprabha	Chairperson - BOS	<i>B. Jeyaprabha</i>
2.	Ms.S.M.Nazia Fathima	Director R & D	Attended through MS Teams
3.	Dr.A.SenthilKumar	Principal	Attended through MS Teams
4.	Dr.Hemalatha	Dean Academics	Attended through MS Teams
5.	Dr.T.Sekar	University Nominee Professor & Head University College of Engineering Ramanathapuram	Attended through MS Teams
6.	Dr.S.Arul Jeyachandran	Member – Academia Professor Structural Engineering Laboratory IIT Madras, Chennai	Attended through MS Teams
7.	Dr.S.Nagan	Member – Academia Professor/Civil Thiagarajar College of Engineering Madurai	Attended through MS Teams
8.	Mr.S.Hari Rajan	Member – Industry Drone Pilot, UAE	Attended through MS Teams
9.	Mr.P.Balakrishnan	Member – Alumni Research scholar in IIT Madras	Attended through MS Teams
10.	Dr.P.OliverJayaprakash	Member - Internal	<i>[Signature]</i>
11.	Dr.R.Anandakumar	Member - Internal	<i>R. Anandakumar</i>
12.	Dr.C.Mekala	Member - Internal	<i>C. Mekala</i>
13.	Dr.M.Senthil Kumar	Member - Internal	<i>Senthil Kumar</i>
14.	Dr.A.M.Arun Mohan	Member - Internal	<i>Arun Mohan</i>
15.	Ms.B.Shanmugavalli	Member - Internal	<i>[Signature]</i>

S.No	Name of the Faculty Member	Position	Signature
16.	Ms.K.Pandeeswari	Member - Internal	
17.	Mr.Krishnakumar.M	Member - Internal	
18.	Ms.K.Dhivya	Member - Internal	
19.	Mr.R.Vijayan	Member - Internal	
20.	Mr.RounakHussain	Member - Internal	
21.	Ms.L.Kokila	Member - Internal	
22.	Ms.V.Anandhi	Member - Internal	
23.	Ms.P.Sasirekha	Member - Internal	
24.	Mr.S.VigneshBharathi	Member - Internal	
25.	Ms.R.BanuPriya	Member - Internal	
26.	Ms.S.Bharathi	Member - Internal	
27.	Ms.P.Anitha	Member - Internal	
28.	Ms.A.Subalakshmi	Member - Internal	
29.	Mr.P.Rajeswaran	Member - Internal	
30.	Ms.G.Vigneswari	Member - Internal	
31.	Ms.K.Jeyagandhi	Member - Internal	
32.	Ms.N.ManiBharathi	Member - Internal	
33.	Mr.M.MohamedFayyaz	Member - Internal	
34.	Mr.C.Udhayan	Member - Internal	
35.	Mr.R.Manikandan	Member - Internal	
36.	Mr.R.Karuppasamy	Member - Internal	
37.	Ms.M.Abinaya	Member - Internal	
38.	Mr.R.Logaraja	Member - Internal	
39.	Ms.B.Mallika	Member - Internal	
40.	Ms.K.PavithraPriyadharshini	Member - Internal	
41.	Mr.A.Rajeshwaran	Member - Internal	
42.	Mr.MohammedMeeraMaideen	Member - Internal	
43.	Ms.S.Anbumeena	Member - Internal	



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DEPARTMENT OF CIVIL ENGINEERING

Minutes of 8th Board of Studies Meeting held on 17.09.2020

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SETHU INSTITUTE OF TECHNOLOGY
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DEPARTMENT OF CIVIL ENGINEERING

MINUTES OF 8TH MEETING OF BOARD OF STUDIES HELD ON 17.09.2020

The Eighth of Board of Studies Meeting was held on 17.09.2020 in the Microsoft teams Platform Department of Civil Engineering. The Chairperson **Dr.B.Jeyaprabha** welcomed the members of the Board of Studies and initiated the meeting.

The following points were discussed in the meeting

1. Growth and Development of the department
2. Department Vision, Mission, PEOs, POs and PSOs
3. Analysis of the Stakeholders feedback regarding curriculum and syllabi.
4. Attainment and Gap Analysis
5. Discussion made in PAC, DAB and Previous BOS meetings
6. R2019 Curriculum and 3rd and 4th Semester Syllabus
7. Assessment Tool and Assessment Pattern
8. Course Outcomes and Assessment Questions
9. Classification of courses having focus on employability/ entrepreneurship/Skill Development
10. Mapping of Curriculum with Program Specific Criteria
11. Changes Made in R2019 Curriculum and Syllabus compared with R2015
12. Value Added Courses imparting transferable and life skills
13. Panel of Examiners
14. M.E Structural Engineering

1. Growth and Development of the Department

A brief description about the growth and development of the department was presented to all the members.

2. Department Vision, Mission & PEOs, POs and PSOs of the department

2.1 The existing and the Revised Vision statements of the Department were presented by the Chairperson as follows and the members of Board of Studies approved the revised Vision Statement.

Existing	Revised
To become a school of excellence in Civil Engineering education with an emphasis on research for the benefit of the society and industry	Progress towards excellence in Civil Engineering by scientific research for the betterment of the society

2.2 The existing and the Revised Mission statements of the Department were presented by the Chairperson as follows and the members of Board of Studies approved the revised Mission Statement.

Existing	Revised
<ul style="list-style-type: none"> To provide quality technical educational practices to enable the graduates to become competent civil engineering professionals to meet the needs of the industry. 	<ul style="list-style-type: none"> Satisfying the aspiration of the students and needs of the industry by providing quality education
<ul style="list-style-type: none"> To provide state-of-the art resources those contribute to an excellent learning environment. 	<ul style="list-style-type: none"> Providing state-of-the art learning environment
<ul style="list-style-type: none"> To develop skills in recent technological trends of civil engineering to enhance employability, entrepreneurship higher education. 	<ul style="list-style-type: none"> Promoting employability and Entrepreneurial skills
<ul style="list-style-type: none"> To establish interaction with industry for the knowledge enhancement and consultancy. 	<ul style="list-style-type: none"> Establishing industrial collaborations
<ul style="list-style-type: none"> To promote research and development activities in emerging areas of civil engineering 	<ul style="list-style-type: none"> Promoting Research and Development activities in emerging areas of civil engineering
<ul style="list-style-type: none"> To offer services to society and industry through education, research and consultancy activities. 	<ul style="list-style-type: none"> Serving the society by quality education and consultancy

2.3 The existing and the Revised Program Outcomes (POs) of B.E. Civil Engineering Program were presented as follows and the members of Board of Studies approved the revised statement of Program Outcomes.

Existing	Revised
1. Apply knowledge of mathematics, science, engineering fundamentals and concepts of civil engineering to the solution of complex civil Engineering problems. (Engineering knowledge)	1. Apply knowledge of mathematics, science and engineering to the solution of complex Civil Engineering problems. (Engineering knowledge)
2. Identify, formulate, review research literature, and analyze complex civil engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences. (Problem analysis)	2. Identify, formulate, review research literature, and analyze complex civil engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences. (Problem analysis)
3. Design solutions for complex civil engineering problems and design system components or processes to satisfy specified client needs as per design specifications and code provisions with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. (Design & Development of Solutions)	3. Design solutions for complex civil engineering problems and design system components or processes to satisfy specified client needs as per design specifications and code provisions with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. (Design & Development of Solutions)
4. Investigate complex civil engineering problems using research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions. (Conduct investigations of complex problems)	4. Investigate complex civil engineering problems using research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions. (Conduct investigations of complex problems)
5. Create, select and apply appropriate techniques, resources, modern engineering tools and software for the analysis and design of complex civil engineering problems with an understanding of their limitations. (Modern tool usage)	5. Select and apply appropriate techniques, resources, modern engineering tools and software for the analysis and design of complex civil engineering problems with an understanding of their limitations. (Modern tool usage)
6. Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities	6. Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent

Existing	Revised
relevant to the civil engineering practice. (The engineer and society)	responsibilities relevant to the civil engineering practice. (The engineer and society)
7. Understand the impact of the civil engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. (Environment and sustainability)	7. Understand the impact of the civil engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. (Environment and sustainability)
8. Apply ethical principles and commit to professional ethics and responsibilities and norms of civil engineering practice. (Ethics)	8. Apply ethical principles and commit to professional ethics and responsibilities and norms of civil engineering practice. (Ethics)
9. Function effectively as a member / leader in diverse teams or in multidisciplinary settings in handling civil engineering projects. (Individual & team work)	9. Function effectively as a member / leader in diverse teams or in multidisciplinary settings in handling civil engineering projects. (Individual & team work)
10. Communicate effectively on complex civil engineering activities with the engineering community and society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions. (Communication)	10. Communicate effectively with the engineering community and with society at large in both verbal and written forms on complex civil engineering activities. (Communication)
11. Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. (Project Management & Finance)	11. Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader to manage projects and in multidisciplinary environments to achieve efficient and cost-effective solutions. (Project Management & Finance)
12. Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. (Lifelong Learning)	12. Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. (Lifelong Learning)

2.4 The existing and the Revised Program Educational Objectives (PEOs) of B.E. Civil Engineering Program were presented as follows and the members of Board of Studies approved the revised statement of Program Educational Objectives (PEOs).

Existing	Revised
Our Graduates will	Our Graduates will
1. Apply knowledge of science and engineering to achieve practical solutions for real life problems in core and allied areas of civil engineering. (Core Competence)	1. Demonstrate expertise in offering solutions to the practical problems. (Core Competence)
2. Design and develop civil engineering systems or components with a sense of ethics and professionalism for the benefit of industry as well as society. (Professionalism)	2. Offer professional acumen to the industry and society with effective communication and ethics. (Professionalism)
3. Enhance their professional career through continuous learning to take-up challenging task in the organization they work with good technical competency, communication skills and team spirit. (Lifelong Learning)	3. Involve in perpetual learning and research with social responsibility (Lifelong Learning)

2.5 The existing and the Revised Program Specific Outcomes (PSOs) of B.E. Civil Engineering Program were presented as follows and the members of Board of Studies approved the revised statement of Program Specific Outcomes (PSOs).

Existing	Revised
The Civil Engineering Graduates Will	
<ul style="list-style-type: none"> Plan, analyze, design, execute and maintain civil engineering projects in a cost-effective manner without overexploitation of natural resources. 	<ul style="list-style-type: none"> Design and maintain safe and cost-effective infrastructural projects.
<ul style="list-style-type: none"> Apply the innovative techniques to explore future frontiers of civil engineering for knowledge updation and dissemination progressively 	<ul style="list-style-type: none"> Plan environmental solutions without overexploitation of natural resources.

3. **Analysis of the Stakeholders feedback regarding curriculum and syllabi (Annexure A)**

The Chairperson presented the Analysis of the Stakeholders feedback regarding curriculum and syllabus of Regulation 2019 to the members of BOS. The members suggested to incorporate the stakeholder's feedback while framing the syllabus.

4. **Attainment and Gap Analysis**

The Chairperson presented the attainment and Gap analysis to the members of Board of studies. Bases on that, to enhance PO4, PO6, PO8, PO9, & PO11 the following courses were introduced in Regulation 2019.

Programme Outcome	Courses introduced in R2019 to enhance the Weakly mapped Programme outcomes
PO4 Conduct investigations of complex problems	Creative Thinking and Innovation Design &Product Development Project
PO6 The engineer and society	Indian Constitution and Essence of Indian Traditional Knowledge Road Safety Building Safety Valuation Engineering
PO8 Ethics	Gender Equality
PO9 Individual & team work	Interpersonal Skills Laboratory Seminar Survey Camp Creative Thinking and Innovation Design &Product Development Project
PO11 Project Management & Finance	Offered 15UCE702 - Estimation, Costing and Valuation Engineering as an integrated course and included Project Management Professional (PMP) experiments

5. **Discussion made in DAB and Previous BOS meetings (Annexure B)**

The Chairperson presented the discussion made in PAC, DAB and previous BOS meetings. The Chairperson also highlighted the changes made in R2019 Curriculum and syllabus based on those discussions.

6. **R2019 Curriculum and 3rd and 4th Semester Syllabus (Annexure C)**

The Chairperson presented the proposed curriculum R2019 and syllabus for the 3rd and 4th semester courses to the members of BOS. The members of BOS resolved to approve

and recommend the proposed curriculum R2019 of the UG program and syllabus of the 3rd and 4th semester courses to the Academic Council.

The Chairperson also outlined the Mandatory courses, Seminar, Creative Thinking & Innovation, Product Development Project and Summer Internship.

Suggestions given by Dr. T. Sekar, HOD / University Nominee

- Professional Electives can be grouped into domains which will be easy for the students to select the courses
- To increase the number of open elective courses offered by civil department as 10 number of courses

Suggestions given by Dr. S.Arul Jayachandran, Professor, IIT / Madras

- For the course “19UCE501 – Structural Analysis – I” teaching methodology can be improved also arrange Industrial visit for better understanding of the concepts.
- For mandatory courses, instead of ‘0’ credits P/F may be mentioned.
- Invite various industry persons to deliver special lectures for Professional elective courses and one credit courses.
- Faculty members were Instructed to attend faculty development program at IIT, Madras
- Arrange more industrial visit for students then only they get more practical knowledge
- For Problem oriented Courses, tutorial hours are mandatory.

Suggestions given by Dr. S.Nagan, Professor, TCE / Madurai

- Modify the content in Unit III “Properties of Surfaces and Solids” in the course 19UCE303 – Basics of Engineering Mechanics
- Change the course name as “Water Supply Engineering” instead of Environmental Engineering I and “Waste water Engineering” instead of Environmental Engineering II.

Suggestions given by Mr.S.Hari Rajan / Industrial Person / Drone Pilot, UAE

- Students should have the hands-on training on modern surveying equipment's like total station, Drone and GPS.

Suggestions given by Mr.P.Balakrishnan / Alumni / Research scholar in IIT Madras

- Enhance the syllabus of Environmental Impact Assessment (EIA). Compulsorily include EIA2020 as a topic in that course.
- Offer Solid Waste Management course as an open elective course.

7. Assessment Tool and Assessment Pattern

The Chairperson presented the assessment tool and assessment pattern for Theory courses, Practical Courses and Projects of Regulation 2019 to the members of BOS.

8. Course Outcomes and Assessment Questions

The Chairperson presented the Course Outcomes and Assessment Questions for all the courses in 3rd and 4th semester of Regulation 2019 curriculum prepared by the faculty members.

9. Classification of courses having focus on Employability/ Entrepreneurship/Skill Development (Annexure D)

The Chairperson presented the list of Employability Enhancement, Entrepreneurship Development and Skill Development Courses identified from the proposed R2019 curriculum to the members of BOS as follows and the members of BOS resolved to approve and recommend the same to the Academic Council.

10. Mapping of Curriculum with Program Specific Criteria (Annexure E)

The Chairperson presented the Program Specific Criteria identified from ABET and also the mapping of the proposed curriculum R2019 with each Criteria to the members of BOS. The members of BOS resolved to approve and recommend the mapping of the UG courses with the stated Program Specific Criteria to the Academic Council.

11. Changes Made in R2019 Curriculum compared with R2015 Curriculum

The Chairperson presented the changes made in R2019 compared with R2015 curriculum, addition and Deletion of courses in R2019 curriculum to the members of Board of Studies. The members of BOS resolved to approve and recommend to the Academic Council.

12. Value Added Courses imparting transferable and life skills

The Chairperson presented the list of value-added courses planned and the members of BOS resolved to approve and recommend the same of the UG program to the Academic Council.

Course Name	Offered by
Land surveying using Total Station	Ladder Survey Institute of Technology, Chennai
AutoCAD	CADD Centre
Revit Architecture	Hi-Tech CADD Centre
Google Sketch up	Hi-Tech CADD Centre
Tekla Structures	Under Consideration
Vasthu Sastra	Under Consideration

13. Panel of Examiners (Annexure F & Annexure G)

The Chairperson presented the Panel of Faculty members for Valuation/Question Paper setting/Scrutiny/Practical Exam Examiners for approval. The members of BOS approved and recommended the panel of External Faculty Members for the valuation and question paper setting for the UG program to the Academic Council.

Suggestion given by Dr. T. Sekar, HOD / University Nominee

Dr. T. Sekar, HOD / University Nominee suggested to invite examiners from standard institutions like IIT and NIT

14. M.E Structural Engineering

The members thoroughly discussed the curriculum and syllabi for M.E Structural Engineering followed under Autonomous Regulation 2019 and recommended to follow the curriculum and syllabi without any modifications for the academic year 2020 – 21.

The Chairperson thanked the members of BOS for their contribution and valuable suggestions given by them in various aspects in framing the curriculum and syllabi for B.E Civil Engineering Program and M.E. Structural Engineering Program under Autonomous Regulation 2019.

B. Jeyaprabha

Chairperson

Board of Studies / Civil Engineering

 Chairperson
Board of Studies
Civil Engineering
Sethu Institute of Technology
Kariapatti - 626 115



SETHU INSTITUTE OF TECHNOLOGY
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DEPARTMENT OF CIVIL ENGINEERING

Action taken report on Minutes of 8th Board of Studies (BOS) meeting held on 17.09.2020

S.No.	POINTS DISCUSSED	ACTION TAKEN
Dr. T. Sekar, HOD / University college of Engineering, Ramnad		
1.	Professional Electives can be grouped into domains which will enhance the knowledge of the students	As per the suggestions given by our academic council, the system of grouping of electives was removed.
2.	To increase the number of open elective courses offered by civil department as 10 number of courses	It will be considered while framing next curriculum.
3.	Suggested to invite examiners from standard institutions like IIT and NIT	Suggestion will be incorporated in future
Dr.S.ArulJayachandran, Professor, IIT / Madras		
4.	For the course "19UCE501 – Structural Analysis – I" teaching methodology can be improved and also arrange Industrial visit for better understanding of the concepts.	Suggestions will be implemented during Teaching Learning process.
5.	For mandatory courses, instead of '0' credits P/F may be mentioned	Suggestions were incorporated in R2019 Curriculum. For all the Mandatory courses, instead of '0' credits, P/F mentioned.
6.	Invite various industry persons to deliver special lectures for Professional elective courses and one credit courses.	Already arranging industry persons to deliver special lectures for Professional elective courses and one credit courses.
7.	Faculty members were Instructed to attend faculty development program at IIT, Madras.	Our faculties are continuously attending the FDPs in various institutions. They are also advised to attend programs in standard institutions like IIT's and NIT's.
8.	Arrange more industrial visit for students then only they got more practical knowledge.	Internship and Inplant Training is already in practice for credit replacement and knowledge enhancement. In R2019 curriculum, we made industrial training as a mandatory one.
9.	For Problem Oriented Courses, tutorial hours are mandatory.	Suggestions were incorporated. Tutorial hours are provided for courses like Engineering Mechanics, Strength of Materials, Design of Reinforced Concrete, Design of Steel Structures, Structural Analysis – I & II in R2019.
Dr.S.Nagan, Professor, TCE / Madurai		
10.	Modify the content in Unit III "Properties of	Suggested changes were included in the

S.No.	POINTS DISCUSSED	ACTION TAKEN
	Surfaces and Solids" in the course 19UCE303 – Basics of Engineering Mechanics	course 19UCE303 – Basics of Engineering Mechanics
11.	Modify the course name for Environmental Engineering I & II as "Water Supply Engineering" and "Waste water Engineering"	Suggestions were implemented. Environmental Engineering I was renamed as 19UCE304 – Water Supply Engineering and Environmental Engineering II was renamed as 19UCE404 – Waste Water Engineering
Mr.S.HariRajan / Industrial Person / Drone Pilot UAE		
12.	Students should have the hands-on training on modern surveying equipment's like total station, Drone and GPS	Suggestions will be implemented during Teaching Learning process.
Mr.P.Balakrishnan / Alumni / Research scholar in IIT Madras		
13.	Enhance the syllabus of Environmental Impact Assessment (EIA).Compulsorily include EIA2020 as a topic in that course.	It will be incorporate while framing the syllabus of elective courses.
14.	Offer Solid Waste Management course as an open elective course.	Suggestions were incorporated. Offered 19UCE978 – Solid Waste Management as a open elective course in R2019 Curriculum



Prepared by

Ms. K. Pandeewari, AP (SG) / Civil

Ms.K. Dhivya, AP (SG) / Civil

Ms. A. Subalakshmi, AP / Civil



HOD / Civil

Dr.B.Jeyaprabha

ANNEXURE A - Stakeholders' Feedback

Stakeholder	Suggestion	Proposed Action
EXTERNAL FACULTY		
Dr. R. Srinivasa Kumar, Associate Professor, Dept of Civil Engg, UCE, OSMANIA UNIVERSITY	Include survey camp using latest equipment's	Offered 19UCE409 – Survey Camp in 4 th Semester
Dr.KasiViswanathan Associate Professor IIT Roorkee	Plane Table Surveying may be removed from surveying lab	Will consider while framing the syllabus
Dr.S.Neelamani Senior Research Scientist Kuwait Institute for Scientific Research Center Kuwait	VaastuSastra can be added in the syllabus	Vaastusastra was planned to conduct as an Value added course
	Add more on "Reduce, Reuse and Recycle" policy	Will consider while framing the syllabus for higher semesters
INTERNAL FACULTY		
Dr. A. Senthil Kumar, Principal, SIT	Smart City can be included as a Core course	19UCE703 – Smart City Technologies is offered in 7th Semester
Mr.R.Karuppasamy Assistant Professor	Include Finite Element Analysis in professional core	Basic concepts of Finite Element Analysis are there in the course 15UCE601 Structural Analysis II
Dr. P. Oliver Jayaprakash, Professor	Include Fundamentals of Urban Planning and Concepts of Valuation	Course 19UCE926 - Valuation Engineering is offered as Professional Elective
Ms.K. Pandeewari Assistant Professor (SG)	Bar Bending should be included	19UCE878 - Bar Bending and Ductile Detailing is offered as one credit course
EMPLOYER		
Mr.M.Raja, Proprietor, Vel Bricks Constructions, Madurai	Include GPS in surveying, so that Students can gain knowledge about latest technology.	Total Station and GPS surveying is included in the course 19UCE306 – Surveying and 19UCE308 Surveying Laboratory

Mr. Krishna Raja, Engineer, Karumathur	Separate the courses highway and railway Engineering.	Separated as 19UCE504 Highway Engineering and 19UCE914 Railway, Airport and Harbour Engineering in R2019
Ms.Meena S. Divisional Engineer Uthamapalayam	Enhance the syllabus of Air pollution.	Introduced 19UCE925 – Air and Noise pollution control and Management as Professional Elective
Mr.Ramasamy Work Inspector (Rtd) PWD Ayyampalayam	Include the course “Smart Cities”, since it includes advanced & modern urbanization	Offered as Professional Core “19UCE703 – Smart City Technologies” in 7 th Semester
ALUMNI		
Mr. M.R.Aravind (2007 – 2011) Proprietor, F(x) Building Solutions, Chennai	Include Latest softwares & new technologies used in the market, in the curriculum	Autocad, StAADpro and Primavera experiments are included in the course Software Application Laboratory and Project Management Professional Laboratory (Embedded Theory)
Mr. T. Raghuram (2008 – 2012) Assistant Project Engineer Vasupradha Consultants, Hyderabad	Practice sessions and hands on training can be given for Estimation & Costing	MS Excel and Primavera Experiments are included in Project Management Professional Laboratory (Embedded Theory)
STUDENTS		
A.J.Aruna, Final year	Repair and Rehabilitation of structures shall be included	Offered as professional elective in R2019 Curriculum
M.MuthuAnand Third Year	Include Total station in Survey practical	Total station was included in 19UCE310 – Survey Practical

ANNEXURE B - Modifications based on DAB and previous BOS Meetings

SUGGESTIONS FROM PREVIOUS DEPARTMENT ADVISORY BOARD MEETING 2019-2020		
DAB Academic Member	Suggestion	Proposed Action
Dr. T. Baskaran Professor, TCE, Madurai	More Open Electives may be included 1.Project Management 2.Road safety 3.Business Management and Leadership	Out of the following, offered Road Safety as the new open elective course
SUGGESTIONS FROM DEPARTMENT ADVISORY BOARD MEETING 2020-2021		
Dr.Benny Joseph Principal VimalJyothi College of Engineering Kerala	Suggested to include Building safety course in R2019 Curriculum.	Suggestions were incorporated in R2019 Curriculum. Offered 19UCE877 – Building Safety as a one credit course.
	Give comprehensive training to students which will help students to attend any competitive exams. Make this course as a mandatory one. It can be a P/F course.	Suggestion will be forwarded to Academic Council and try to incorporate in future.
	Add architectural related course in R2019 curriculum. Invite architects to give lectures and make students to get interact with them.	Suggestions were incorporated in R2019 Curriculum. Offered 19UCE862 – Practical Aspects of Architecture as a one credit course.
	Suggested to give course level projects.	Suggestions will be implemented during Teaching Learning process.
	Try to provide virtual lab which is more important for NBA accreditation.	Suggestion will be taken to our Management and try to establish the virtual lab in future.
	Include other country codal provisions for design-oriented courses.	It will be incorporate while framing the syllabus of Design related courses.
Mr.Saran Raj Alumni Project Engineer Huakeong Industries Pvt Ltd., Singapore	Try to include dome advanced software like BIM, Tekla for steel structures, MS project and Primavera for scheduling and programming	All the suggested softwares will be as a value added courses.

SUGGESTIONS FROM PREVIOUS BOS 2019 - 2020		
Dr.T.Sekar AU Nominee Professor / Civil Anna University Ramanad	Suggested to include Survey Camp in R2019 Curriculum. Then only students can have the practical field experience	Offered 19UCE409 – Survey Camp in 4th Semester
	Suggested to include Design of scaffolding as a one credit course	19UCE872 Design of Scaffolding is offered as an one credit course as suggested.
Dr.R.Velkennedy Professor / Civil TCE	Suggested to split the course Highway and Railway Engineering	Suggestion implemented
Dr.S.Nagan Professor / Civil TCE	Suggested to include recent software for analysis, drafting and management	Autocad, Staadpro and Primavera experiments are included in software applications and Project Management Professional laboratory. Practical Building Information Modelling was offered as an one credit course.
Dr.P.Vincent Professor / Civil MepcoSchlenk Engineering College	Suggested to introduce all designing concepts using MS-Excel	Experiments are included in Software Application Laboratory and PMP Laboratory
	Suggested to give Summer Internship in Curriculum	Summer Internship is offered in 7 th semester as per AICTE guidelines

ANNEXURE C
CURRICULUM - Regulations 2019

Bachelor of Engineering in Civil Engineering

OVERALL COURSE STRUCTURE

Category	Total No. of Courses	Credits	Percentage
Humanities and Social Sciences (HS)	5	9.5	5
Basic Sciences (BS)	10	30	17
Engineering Sciences (ES)	9	23	13
Professional Core (PC)	24	67.5	38
Professional Electives (PE)	6	18	10
Open Electives (OE)	4	12	7
Project (P)	6	16	9
Mandatory Courses (MC)	5	0	0
TOTAL	69	176	100

COURSE CREDITS – SEMESTER WISE

Branch	I	II	III	IV	V	VI	VII	VIII	TOTAL
Civil Engineering	23	20.5	24	24	25.5	25	20	14	176

LIST OF WINTER COURSES

S. No	Course Code	Name of the Course	L	T	P	C	Category
1.	19UEN101	English for Technical Communication	2	0	0	2	HS
2.	19UMA102	Engineering Mathematics – I	3	1	0	4	BS
3.	19UPH103	Engineering Physics	3	0	0	3	BS
4.	19UCY106	Chemistry for Civil Engineers	3	0	0	3	BS
5.	19UCS108	Problem Solving and Python Programming	3	0	0	3	ES
6.	19UME109	Engineering Graphics	3	1	0	4	ES
7.	19UGS113	Basic Sciences Laboratory	0	0	2	1	BS
8.	19UME111	Engineering Practices Laboratory	0	0	3	1.5	ES
9.	19UCS110	Problem Solving and Python Programming Laboratory	0	0	3	1.5	ES
10.	19UGM131	Induction Program (45 periods)	0	0	0	P/F	MC
11.	19UMA325	Probability, Statistics and Transform Techniques	3	1	0	4	BS
12.	19UCE302	Engineering Geology and Construction Materials	3	0	0	3	ES
13.	19UCE303	Basics of Engineering Mechanics	3	1	0	4	ES
14.	19UCE304	Water Supply Engineering	3	0	0	3	PC
15.	19UCE305	Fluid Mechanics	3	0	0	3	PC
16.	19UCE306	Surveying	3	0	0	3	PC
17.	19UCE307	Seminar	0	0	2	1	P
18.	19UCE308	Material Testing Laboratory	0	0	3	1.5	PC
19.	19UCE309	Surveying Laboratory	0	0	3	1.5	PC
20.	19UGM332	Biology for Engineering Applications	2	0	0	P/F	MC
21.	19UCE501	Structural Analysis – I	3	1	0	4	PC
22.	19UCE502	Foundation Engineering	3	0	0	3	PC
23.	19UCE503	Design of Reinforced Concrete Elements	3	1	0	4	PC
24.	19UCE504	Water Resources and Irrigation Engineering	3	0	0	3	PC
25.	19UCE507	Creative Thinking & Innovation	0	0	2	1	P
26.	19UCE508	Concrete and Highway Laboratory	0	0	3	1.5	PC
27.	19UCE509	Soil Mechanics Laboratory	0	0	3	1.5	PC
28.	19UGS533	Interpersonal Skills Laboratory	0	0	3	1.5	HS
29.	19UME701	Project Management and Finance	3	0	0	3	PC
30.	19UCE702	Estimation, Costing and Valuation Engineering	3	0	2	4	PC
31.	19UCE703	Smart City Technologies	3	0	0	3	PC
32.	19UCE707	Summer Internship	0	0	0	1	P
33.	19UGM731	Professional Ethics and Human Values	2	0	0	P/F	MC

LIST OF SUMMER COURSES

S. No	Course Code	Name of the Course	L	T	P	C	Category
1.	19UMA206	Differential Equations, Complex Analysis and Transform Techniques for Civil Engineering	3	1	0	4	BS
2.	19UPH206	Building Physics	3	0	0	3	BS
3.	19UCY204	Environmental Science	3	0	0	3	BS
4.	19UCE205	Introduction to Civil Engineering	3	0	0	3	HS
5.	19UEE226	Basic Electrical and Electronics Engineering	3	0	0	3	ES
6.	19UEN201	Communication Skills for Professionals	1	0	1	1.5	HS
7.	19UGS210	Energy and Environmental Science Laboratory	0	0	3	1.5	ES
8.	19UCE211	Computer Aided Building Drawing	0	0	3	1.5	ES
9.	19UMA423	Numerical Methods	3	1	0	4	BS
10.	19UCE402	Soil Mechanics	3	0	0	3	PC
11.	19UCE403	Strength of Materials	3	1	0	4	PC
12.	19UCE404	Waste Water Engineering	3	0	0	3	PC
13.	19UCE405	Highway Engineering	3	0	0	3	PC
14.	19UCE406	Applied Hydraulic Engineering	3	0	0	3	PC
15.	19UCE407	Water and Waste Water Analysis Laboratory	0	0	3	1.5	PC
16.	19UCE408	Hydraulic Engineering Laboratory	0	0	3	1.5	PC
17.	19UCE409	Survey Camp (2 Weeks)	0	0	2	1	P
18.	19UGM431	Gender Equality	1	0	0	P/F	MC
19.	19UCE601	Structural Analysis – II	3	1	0	4	PC
20.	19UCE602	Design of Steel Structures	3	1	0	4	PC
21.	19UGS631	Logical Reasoning & Aptitude	1	0	0	1	BS
22.	19UCE607	Product Development Project	0	0	8	4	P
23.	19UCE608	Software Applications Laboratory	0	0	3	1.5	PC
24.	19UGS632	Soft Skills and Communication Lab	0	0	3	1.5	HS
25.	19UGM634	Indian Constitution and Essence of Indian Traditional Knowledge in Civil Engineering	1	0	0	P/F	MC
26.	19UCE803	Project Work	0	0	16	8	P

SEMESTER- I

Course Code	Name of the Course	L	T	P	C	Category
THEORY						
19UEN101	English for Technical Communication	2	0	0	2	HS
19UMA102	Engineering Mathematics – I	3	1	0	4	BS
19UPH103	Engineering Physics	3	0	0	3	BS
19UCY106	Chemistry for Civil Engineers	3	0	0	3	BS
19UCS108	Problem Solving and Python Programming	3	0	0	3	ES
19UME109	Engineering Graphics	3	1	0	4	ES
PRACTICAL						
19UGS113	Basic Sciences Laboratory	0	0	2	1	BS
19UME111	Engineering Practices Laboratory	0	0	3	1.5	ES
19UCS110	Problem Solving and Python Programming Laboratory	0	0	3	1.5	ES
MANDATORY COURSE						
19UGM131	Induction Program (45 periods)	0	0	0	P/F	MC
	TOTAL	17	2	8	23	
Total No. of Credits – 23						

SEMESTER- II

Course Code	Name of the Course	L	T	P	C	Category
THEORY						
19UMA206	Differential Equations, Complex Analysis and Transform Techniques for Civil Engineering	3	1	0	4	BS
19UPH206	Building Physics	3	0	0	3	BS
19UCY204	Environmental Science	3	0	0	3	BS
19UCE205	Introduction to Civil Engineering	3	0	0	3	HS
19UEE226	Basic Electrical and Electronics Engineering	3	0	0	3	ES
PRACTICAL						
19UEN201	Communication Skills for Professionals	1	0	1	1.5	HS
19UGS210	Energy and Environmental Science Laboratory	0	0	3	1.5	ES
19UCE211	Computer Aided Building Drawing	0	0	3	1.5	ES
	TOTAL	16	1	7	20.5	
Total No. of Credits – 20.5						

SEMESTER– III

Course Code	Name of the Course	L	T	P	C	Category
THEORY						
19UMA325	Probability, Statistics and Transform Techniques	3	1	0	4	BS
19UCE302	Engineering Geology and Construction Materials	3	0	0	3	ES
19UCE303	Basics of Engineering Mechanics	3	1	0	4	ES
19UCE304	Water Supply Engineering	3	0	0	3	PC
19UCE305	Fluid Mechanics	3	0	0	3	PC
19UCE306	Surveying	3	0	0	3	PC
PRACTICAL						
19UCE307	Seminar	0	0	2	1	P
19UCE308	Material Testing Laboratory	0	0	3	1.5	PC
19UCE309	Surveying Laboratory	0	0	3	1.5	PC
MANDATORY COURSE						
19UGM332	Biology for Engineering Applications	2	0	0	P/F	MC
	TOTAL	20	2	8	24	
Total No. of Credits – 24						

SEMESTER– IV

Course Code	Name of the Course	L	T	P	C	Category
THEORY						
19UMA423	Numerical Methods	3	1	0	4	BS
19UCE402	Soil Mechanics	3	0	0	3	PC
19UCE403	Strength of Materials	3	1	0	4	PC
19UCE404	Waste Water Engineering	3	0	0	3	PC
19UCE405	Highway Engineering	3	0	0	3	PC
19UCE406	Applied Hydraulic Engineering	3	0	0	3	PC
PRACTICAL						
19UCE407	Water and Waste Water Analysis Laboratory	0	0	3	1.5	PC
19UCE408	Hydraulic Engineering Laboratory	0	0	3	1.5	PC
19UCE409	Survey Camp (2 Weeks)	0	0	2	1	P
MANDATORY COURSE						
19UGM431	Gender Equality	1	0	0	P/F	MC
	TOTAL	19	2	8	24	
Total No. of Credits – 24						

SEMESTER– V

Course Code	Name of the Course	L	T	P	C	Category
THEORY						
19UCE501	Structural Analysis – I	3	1	0	4	PC
19UCE502	Foundation Engineering	3	0	0	3	PC
19UCE503	Design of Reinforced Concrete Elements	3	1	0	4	PC
19UCE504	Water Resources and Irrigation Engineering	3	0	0	3	PC
	Professional Elective – I	3	0	0	3	PE
	Open Elective – I	3	0	0	3	OE
PRACTICAL						
19UCE507	Creative Thinking & Innovation	0	0	2	1	P
19UCE508	Concrete and Highway Laboratory	0	0	3	1.5	PC
19UCE509	Soil Mechanics Laboratory	0	0	3	1.5	PC
19UGS533	Interpersonal Skills Laboratory	0	0	3	1.5	HS
	TOTAL	18	2	11	25.5	
Total No. of Credits – 25.5						

SEMESTER– VI

Course Code	Name of the Course	L	T	P	C	Category
THEORY						
19UCE601	Structural Analysis – II	3	1	0	4	PC
19UCE602	Design of Steel Structures	3	1	0	4	PC
	Professional Elective – II	3	0	0	3	PE
	Professional Elective – III	3	0	0	3	PE
	Open Elective – II	3	0	0	3	OE
19UGS631	Logical Reasoning & Aptitude	1	0	0	1	BS
PRACTICAL						
19UCE607	Product Development Project	0	0	8	4	P
19UCE608	Software Applications Laboratory	0	0	3	1.5	PC
19UGS632	Soft Skills and Communication Lab	0	0	3	1.5	HS
MANDATORY COURSE						
19UGM634	Indian Constitution and Essence of Indian Traditional Knowledge in Civil Engineering	1	0	0	P/F	MC
	TOTAL	17	2	14	25	
Total No. of Credits – 25						

SEMESTER– VII

Course Code	Name of the Course	L	T	P	C	Category
THEORY						
19UME701	Project Management and Finance	3	0	0	3	PC
19UCE702	Estimation, Costing and Valuation Engineering	3	0	2	4	PC
19UCE703	Smart City Technologies	3	0	0	3	PC
	Professional Elective – IV	3	0	0	3	PE
	Professional Elective – V	3	0	0	3	PE
	Open Elective – III	3	0	0	3	OE
PRACTICAL						
19UCE707	Summer Internship	0	0	0	1	P
MANDATORY COURSE						
19UGM731	Professional Ethics and Human Values	2	0	0	P/F	MC
	TOTAL	20	0	2	20	
Total No. of Credits – 20						

SEMESTER– VIII

Course Code	Name of the Course	L	T	P	C	Category
THEORY						
	Professional Elective – VI	3	0	0	3	PE
	Open Elective – IV	3	0	0	3	OE
PRACTICAL						
19UCE803	Project Work	0	0	16	8	P
	TOTAL	6	0	16	14	
Total No. of Credits – 14						

LIST OF PROFESSIONAL ELECTIVES

S. No.	Course Code	Name of the Course	L	T	P	C
1.	19UCE901	Modern Surveying	3	0	0	3
2.	19UCE902	Traffic Engineering and Management	3	0	0	3
3.	19UCE903	Housing Planning and Management	3	0	0	3
4.	19UCE904	Ground Water Engineering	3	0	0	3
5.	19UCE905	Environmental Impact Assessment	3	0	0	3
6.	19UCE906	Municipal Solid Waste Management	3	0	0	3
7.	19UCE907	Ground Improvement Techniques	3	0	0	3
8.	19UCE908	Bridge Engineering	3	0	0	3
9.	19UCE909	Tall Structures	3	0	0	3
10.	19UCE910	Prefabricated Structures	3	0	0	3
11.	19UCE911	Finite Element Methods	3	0	0	3
12.	19UCE912	Repair and Rehabilitation of Structures	3	0	0	3
13.	19UCE913	Prestressed Concrete Structures	3	0	0	3
14.	19UCE914	Railway Airport and Harbour Engineering	3	0	0	3
15.	19UCE915	Urban Planning and Management	3	0	0	3
16.	19UCE916	Coastal Engineering	3	0	0	3
17.	19UCE917	Structural Dynamics and Earthquake Engineering	3	0	0	3
18.	19UCE918	Construction Techniques, Equipments and Practices	3	0	0	3
19.	19UCE919	Concrete Technology	3	0	0	3
20.	19UCE920	Disaster Preparedness and Planning	3	0	0	3
21.	19UCE921	Structural Design and Drawing	2	0	2	3
22.	19UCE922	Environmental Laws and Policies	3	0	0	3
23.	19UCE923	Environmental Quality Monitoring	3	0	0	3
24.	19UCE924	Sustainable Construction	3	0	0	3
25.	19UCE925	Air and Noise Pollution Control and Management	3	0	0	3
26.	19UCE926	Valuation Engineering	3	0	0	3
27.	19UCE927	Application of Remote Sensing & GIS in Civil Engineering	3	0	0	3
28.	19UCE928	Instrumentation and Sensor Technology for Civil Engineering	3	0	0	3
29.	19UCE929	Environmental and Irrigation Engineering Drawing	2	0	2	3
30.	19UCE930	Masonry Structures	3	0	0	3

List of Open Electives

S. No.	Course Code	Name of the Course	L	T	P	C
1.	19UCE971	Remote Sensing and GIS	3	0	0	3
2.	19UCE972	Air Pollution and Control Engineering	3	0	0	3
3.	19UCE973	Environmental and Social Impact Assessment	3	0	0	3
4.	19UCE974	Disaster Management	3	0	0	3
5.	19UCE975	Environmental Science and Engineering	3	0	0	3
6.	19UCE976	Metro Systems and Engineering	3	0	0	3
7.	19UCE977	Road Safety	3	0	0	3
8.	19UCE978	Solid Waste Management	3	0	0	3

List of Mandatory Courses

S. No.	Course Code	Name of the Course	L	T	P	C
1.	19UGM131	Induction Program (45 periods)	0	0	0	P/F
2.	19UGM332	Biology for Engineering Applications	2	0	0	P/F
3.	19UGM431	Gender Equality	1	0	0	P/F
4.	19UGM634	Indian Constitution and Essence of Indian Traditional Knowledge in Civil Engineering	1	0	0	P/F
5.	19UGM731	Professional Ethics and Human Values	2	0	0	P/F

List of One Credit Courses (With Industry Collaboration)

S. No.	Course Code	Name of the Course	L	T	P	C
1.	19UCE861	Green Building Concepts	1	0	0	1
2.	19UCE862	Practical Aspects of Architecture.	1	0	0	1
3.	19UCE863	Water Conservation Techniques	1	0	0	1
4.	19UCE864	Construction Safety	1	0	0	1
5.	19UCE865	Design of Multistorey Building – A Practical Approach	0	0	2	1
6.	19UCE866	Corrosion of Steel in Concrete and Preventive Measures	1	0	0	1
7.	19UCE867	Building Planning and Byelaws	1	0	0	1
8.	19UCE868	Automation in Construction	1	0	0	1
9.	19UCE869	Building Energy Audit	1	0	0	1
10.	19UCE870	Health Monitoring of Structures	1	0	0	1
11.	19UCE871	Artificial Intelligence in Civil Engineering	1	0	0	1
12.	19UCE872	Design of Scaffolding	1	0	0	1
13.	19UCE873	Applications of Robotics in Civil Engineering	1	0	0	1
14.	19UCE874	Drone surveying	1	0	0	1
15.	19UCE875	Recycled Construction Materials	1	0	0	1
16.	19UCE876	Practical Building Information Modelling	0	0	2	1
17.	19UCE877	Building Safety	1	0	0	1
18.	19UCE878	Bar Bending and Ductile detailing	1	0	0	1
19.	19UCE879	Global Climate Change and Vulnerability Assessment	1	0	0	1
20.	19UCE880	Paver Block Manufacturing as per IS code	0	0	2	1

ANNEXURE D - Courses focused on Employability/ Entrepreneurship/Skill Development**EMPLOYABILITY ENHANCEMENT COURSES**

Course Code	Course Name	L	T	P	C
19UCS110	Problem Solving and Python Programming Laboratory	0	0	3	1.5
19UEN201	Communication Skills for Professionals	1	0	1	1.5
19UGS533	Interpersonal Skills Laboratory	0	0	3	1.5
19UCE507	Creative Thinking & Innovation	0	0	2	1
19UGS631	Logical Reasoning & Aptitude	1	0	0	1
19UGS632	Soft Skills and Communication Lab	0	0	3	1.5
19UCE608	Product Development Project	0	0	8	4
19UCE609	Software Applications Laboratory	0	0	3	1.5
19UCE708	Summer Internship	0	0	0	1
19UCE801	Project Work	0	0	16	8
19UCE871	Artificial Intelligence in Civil Engineering	1	0	0	1
19UCE874	Drone surveying	1	0	0	1
19UCE880	Paver Block Manufacturing as per IS code	0	0	2	1
19UCE410	Survey Camp (2 Weeks)	0	0	2	1
19UCE702	Estimation, Costing and Valuation Engineering	3	0	2	4

ENTREPRENEURSHIP DEVELOPMENT COURSES

Course Code	Course Name	L	T	P	C
19UCE702	Estimation, Costing and Valuation Engineering	3	0	2	4
19UCE609	Software Applications Laboratory	0	0	3	1.5
19UCE608	Product Development Project	0	0	8	4
19UCE801	Project Work	0	0	16	8
19UCE910	Prefabricated Structures	3	0	0	3
19UCE912	Repair and Rehabilitation of Structures	3	0	0	3
19UCE926	Valuation Engineering	3	0	0	3
19UCE865	Design of Multistorey Building – A Practical Approach	0	2	0	1
19UCE880	Paver Block Manufacturing as per IS code	0	0	2	1

SKILL DEVELOPMENT COURSES

Course Code	Course Name	L	T	P	C
19UCE211	Computer Aided Building Drawing	0	0	3	1.5
19UCS108	Problem Solving and Python Programming	3	0	0	3
19UCS110	Problem Solving and Python Programming Laboratory	0	0	3	1.5
19UEN201	Communication Skills for Professionals	1	0	1	1.5

Course Code	Course Name	L	T	P	C
19UCE308	Seminar	0	0	2	1
19UGS533	Interpersonal Skills Laboratory	0	0	3	1.5
19UCE507	Creative Thinking & Innovation	0	0	2	1
19UGS631	Logical Reasoning & Aptitude	1	0	0	1
19UGS632	Soft Skills and Communication Lab	0	0	3	1.5
19UCE608	Product Development Project	0	0	8	4
19UCE871	Artificial Intelligence in Civil Engineering	1	0	0	1
19UCE874	Drone surveying	1	0	0	1
19UCE701	Estimation, Costing and Valuation Engineering	3	0	2	4
19UCE609	Software Applications Laboratory	0	0	3	1.5
19UCE708	Summer Internship	0	0	2	1
19UCE921	Structural Design and Drawing	2	0	2	3
19UCE929	Environmental and Irrigation Engineering Drawing	2	0	2	3
19UCE869	Building Energy Audit	1	0	0	1
19UCE870	Health Monitoring of Structures	1	0	0	1
19UCE876	Practical Building Information Modelling	1	0	0	1
19UCE880	Paver Block Manufacturing as per IS code	0	0	2	1

ANNEXURE E - Mapping of Curriculum with Programme Specific Criteria

Programme Specific Criteria	Name of the Course
Apply knowledge of mathematics through differential equations, calculus-based physics, chemistry, and at least one additional area of basic science and apply probability and statistics to address uncertainty.	Engineering Mathematics – I
	Engineering Physics
	Chemistry for Civil Engineers
	Building Physics
	Environmental Science
	Energy and Environmental Science Laboratory
	Basic Sciences Laboratory
	Basic Sciences Laboratory
	Engineering Practices Laboratory
	Engineering Mathematics – III
	Numerical Methods
Analyze and solve problems in at least four technical areas appropriate to civil Engineering.	Basics of Engineering Mechanics
	Fluid Mechanics
	Soil Mechanics
	Strength of Materials
	Applied Hydraulic Engineering
	Environmental Engineering
	Structural Analysis – I
	Foundation Engineering
	Design of Reinforced Concrete Elements
	Structural Analysis – II
	Estimation, Costing and Valuation Engineering
	Prestressed Concrete Structures
	Structural Dynamics and Earthquake Engineering
	Structural Design and Drawing
Conduct experiments in at least two technical areas of civil Engineering and analyze and interpret the resulting data.	Material Testing Laboratory
	Surveying Laboratory
	Environmental Engineering Laboratory
	Hydraulic Engineering Laboratory
	Concrete and Highway Laboratory
	Soil Mechanics Laboratory
	Creative Thinking & Innovation
	Product Development Project
	Software Applications Laboratory
	Summer Internship
	Project Work
	Structural Design and Drawing
	Environment and Irrigation Engineering Drawing
Design a system, component or process in at least civil Engineering contexts and	Survey camp
	Fluid Mechanics
	Strength of Materials

Programme Specific Criteria	Name of the Course
include principles of sustainability in design.	Concrete Technology
	Applied Hydraulic Engineering
	Environmental Engineering – II
	Environmental Engineering - I
	Foundation Engineering
	Design of Reinforced Concrete Elements
	Design of Steel Structures
Explain basic concepts in project management, business, public policy and leadership	Product Development Project
	Estimation, Costing and Valuation Engineering
	Project Management and Finance
	Professional Ethics and Human Values
	Project Work
	Disaster Management
	Housing Planning and Management
Analyze issues in professional ethics and explain the importance of professional licensure.	Smart City Technologies
	Gender Equality
	Estimation, Costing and Valuation Engineering
	Project Management and Finance
	Smart City Technologies
	Professional Ethics and Human Values
	Housing Planning and Management
	Valuation Engineering

LIST OF EXTERNAL FACULTIES FOR EVALUATIONS

S.No	Name of the Examiner	Department	Name of the College
1.	Dr.R.Ponnudurai	Civil	Thiagarajar College of Engineering
2.	Mr.R.K.C.Jayakumar	Civil	Thiagarajar College of Engineering
3.	Mr.R.Sankaranarayanan	Civil	Thiagarajar College of Engineering
4.	Dr. R.Velkennedy	Civil	Thiagarajar College of Engineering
5.	Dr.C.Rajkumar	Civil	Thiagarajar College of Engineering
6.	Mr.A.Rangaraj	Civil	M Kumarasamy College of Engineering
7.	Mr.M.Manoj Kumar	Civil	PSNA College of Engineering and Technology
8.	Mr.T.J.Vijay	Civil	PSNA College of Engineering and Technology
9.	Mr.M.Mohan	Civil	PSNA College of Engineering and Technology
10.	Mr.Y.M.Siddharamiah	Civil	PSNA College of Engineering and Technology
11.	Dr.Kanagalakshmi	Civil	Panimalar College of Engineering
12.	Dr. K.Srinivasan	Civil	PSNA College of Engineering and Technology
13.	Mr.J.Thavaseelan	Civil	KLN College of Information and Technology
14.	Dr.K.R.Yoganathan	Civil	KLN College of Information and Technology
15.	Dr.K.M.BasanthBabu	Civil	KLN College of Information and Technology
16.	Mr.P.Diwarhar	Civil	KLN College of Information and Technology
17.	Ms.M.Suganya	Civil	PSY Engineering College

LIST OF EXTERNAL FACULTIES FOR QUESTION PAPER SETTING

S.No	Name of the Examiner	Dept	Designation	Name of the College
1.	Dr.T.Sekar	Civil	Professor	Anna University Ramnad
2.	Dr.Caroline Arul	Civil	Professor	Anna University Chennai
3.	Dr.Amalraj	Civil	Professor	Anna University Chennai
4.	Dr.C.Sivanesan	Civil	Associate Professor	AlagappaChettiar College of Engineering and Technology
5.	Dr.S.R.Sumathy	Civil	Assistant Professor	AlagappaChettiar College of Engineering and Technology
6.	Dr. K. Sudha	Civil	Associate Professor	Government College of Engineering, Salem
7.	Dr.M.Anbarasu	Civil	Associate Professor	Government College of Engineering, Salem
8.	Dr.T.Meena	Civil	Professor	VIT Vellore
9.	Dr.V.Dilip Kumar	Civil	Professor	MEC College of Engineering Hyderabad
10.	Dr.Kamalini Devi	Civil	Professor	VJIT Hyderabad
11.	Dr. D.Brindha	Civil	Professor	Thiyagarajar College of Engineering
12.	Dr.S.Nagan	Civil	Professor	Thiyagarajar College of Engineering
13.	Dr.T.Velrajan	Civil	Professor	Thiyagarajar College of Engineering
14.	Dr.T.Baskaran	Civil	Professor	Thiyagarajar College of Engineering
15.	Dr.R.Ponnudurai	Civil	Associate Professor	Thiyagarajar College of Engineering
16.	Mr.R.K.C.Jayakumar	Civil	Assistant Professor	Thiyagarajar College of Engineering
17.	Mr.R.Sankaranarayanan	Civil	Assistant Professor	Thiyagarajar College of Engineering
18.	Dr.P.Vincent	Civil	Sr. Professor	MepcoSchlenk College of Engineering
19.	Dr.L.andal	Civil	Professor	Velammal College of Engineering and Technology
20.	Dr.Kanagalakshmi	Civil	Professor	Panimalar Engineering College
21.	Dr.R.Divahar	Civil	Professor	Arupadaiveedu Institute of Technology
22.	Dr.Lakshmi	Civil	Professor	Kamaraj College of Engineering
23.	Dr.Y.M.Sidararamaiah	Civil	Professor	PSNA College of Engineering