



**NEW HORIZON  
COLLEGE OF ENGINEERING**  
New Horizon Knowledge Park, Ring Road, Marathalli  
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC  
Accredited by NAAC with 'A' Grade. Accredited by NBA



## **DEPARTMENT OF CIVIL ENGINEERING**

### **7<sup>th</sup> BOARD OF STUDIES MEETING**

#### **Minutes of Meeting ACADEMIC YEAR 2021-22**

**DATE** : 22.07.2021  
**VENUE** : DEPARTMENT OF CIVIL ENGINEERING  
**TIME** : 10.30 AM

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## **AGENDA FOR THE MEETING**

- 1. Welcome address by the chairman of BOS**
- 2. Presentation by Chairman of BOS about Department achievements**
- 3. Presentation of proceedings of the previous BOS meeting by Chairman of BOS.**
- 4. Presentation of draft of Scheme & Syllabus of Final year Civil Engineering Subjects for ratification.**
- 5. Recommendations/ Suggestions of BOS members.**
- 6. Implementation of recommendation of BOS members**
- 7. Approval of Scheme & Syllabus of Final year Civil Engineering Subjects**
- 8. Vote of Thanks by the chairman of BOS**

## **BOS LIST OF MEMBERS 2021-22**

Sl. No	Category	Nomination of the committee	Name of the person	Email ID & Mobile No
1	Head of the Department	Chairperson	<b>Dr. Niranjana P S</b>	niranjana@newhorizonindia.edu 9845788345
2	Faculty member at different level with different specialization	Member		
		1	<b>Dr. Jagadeesh C B</b>	dr.jagadeeshcb@newhorizonindia.edu 9008604236
		2	<b>Prof. Surendra B V</b>	surendrabv@newhorizonindia.edu 9663758660
		3	<b>Dr. Geetha Varma V</b>	<a href="mailto:geethavv@newhorizonindia.edu">geethavv@newhorizonindia.edu</a> 9739293202
		4	<b>Dr. Mahesha Nanjegowda</b>	nmahesha@newhorizonindia.edu 9900934756
		5	<b>Dr. Vinay Kumar B M</b>	dr.vinaykumar@newhorizonindia.edu 9945977220
		6	<b>Dr. Natchimuthu Subramani</b>	dr.natchimuthus@newhorizonindia.edu 8056244064
3	Subject expert from outside the college nominated by Academic Council	Member		
		1	<b>Dr. Radha Krishna ,</b> Professor & HOD, RVCE Bengaluru	radhakrishna@rvce.edu.in 9886127398
		2	<b>Dr. P. Prasanna Kumar,</b> Professor & HOD, BMSCE, Bengaluru	<a href="mailto:ppkiisc@gmail.com">ppkiisc@gmail.com</a> 9448555312
4	Experts from outside the college nominated by Vice Chancellor	Member		
		1	<b>Dr. K N Vishwanath</b> Professor & HOD, DSATM, Bengaluru	<a href="mailto:vishnuknv@yahoo.com">vishnuknv@yahoo.com</a> 9880059065
5	Representative from Industry / Corporate sector / allied area related to placements, nominated by Academic Council	Member		
		1	<b>Mr. Mahesh T</b> Environmental officer & Technical advisor KSPCB, Govt of Karnataka	<a href="mailto:maht722002@gmail.com">maht722002@gmail.com</a> 9449046356
		2	<b>Mr. N. VijayaBhaskar</b> Project Manager, DSR Waterscape. Bangalore.	bhask.nidhi@gmail.com 7760969310
6	Post Graduate meritorious alumni nominated by Principal	Member		
		1	<b>Mr. Shantayya. H</b> Secon Limited	<a href="mailto:hshantayya@gmail.com">hshantayya@gmail.com</a> 9686000956
7	Co-opted members	Member		
		1	<b>Mr. Binod Kumar Singh</b> TPO, NHCE	<a href="mailto:placementofficer@newhorizonindia.edu">placementofficer@newhorizonindia.edu</a> 9663928931
		2	<b>Ms. Suma Parlada</b>	<a href="mailto:sumap@newhorizonindia.edu">sumap@newhorizonindia.edu</a> 9739896664

## LIST OF MEMBERS PRESENT

Sl. No	Category	Nomination of the committee	Name of the person	Signature
1	Head of the Department	Chairperson	<b>Dr. Niranjan P S</b>	
2	Faculty member at different level with different specialization	Member		
		1	<b>Dr. Jagadeesh C B</b>	
		2	<b>Prof. Surendra B V</b>	
		3	<b>Dr. Geetha Varma V</b>	
		4	<b>Dr. Mahesha Nanjgowda</b>	
		5	<b>Dr. Vinay Kumar B M</b>	
3	Subject expert from outside the college nominated by Academic Council	Member		
		1	<b>Dr. Radha Krishna ,</b> Professor & HOD, RVCE Bengaluru	
		2	<b>Dr. P. Prasanna Kumar,</b> Professor & HOD, BMSE, Bengaluru	
4	Experts from outside the college nominated by Vice Chancellor	Member		
		1	<b>Dr. K N Vishwanath</b> Professor & HOD, DSATM, Bengaluru	
5	Representative from Industry / Corporate sector / allied area related to placements, nominated by Academic Council	Member		
		1	<b>Mr. Mahesh T</b> Environmental officer & Technical advisor KSPCB, Govt of Karnataka	
6	Post Graduate meritorious alumni nominated by Principal	Member		
		1	<b>Mr. Shantayya. H</b> Secon Limited	
7	Co-opted members	Member		
		1	<b>Mr. Binod Kumar Singh</b> TPO, NHCE	
		2	<b>Ms. Suma Parlada</b>	

## **AGENDA -1**

### **Welcome address by the chairman of BOS**

The 7<sup>th</sup> Board of Studies meeting for Department of Civil engineering was scheduled on 22.07.2021 at 10.30 AM in the Civil Engineering Department.

At the outset, Chairperson Dr. Niranjana P S – Professor & Head – Department of Civil Engineering, welcomed the Members for attending the 7<sup>th</sup> Board of studies meeting held in smart class room C 222 via online platform.

The chairperson introduced Dr. Amarjeet Singh, Prof & Dean–Academics, New Horizon College of Engineering to the members of Board of Studies and welcomed him for the ensuing proceedings.

The chairperson further expressed special thanks to **Dr. K N Vishwanath**, an expert, nominated by VTU, **Dr. Radha Krishna** and **Dr. P. Prasanna Kumar** experts, nominated by Academic Council for sparing the time from their busy schedule to attend the meeting.

The chairperson also expressed his gratitude to **industrial nominees, Mr. Mahesh T, KSPCB, Govt of Karnataka, Mr. N. Vijaya Bhaskar, DSR Waterscape, Bangalore.**

The meeting was also attended by meritorious alumnus **Mr. Shantayya. H**, Secon Limited nominated by the Principal, Co-opted members **Mr. Binod Kumar Singh**, TPO, NHCE, **Ms. Suma Parlada**, NHCE and Internal faculty member **Dr. Jagadeesh C B, Prof. Surendra B V, Dr. Geetha Varma V, Dr. Mahesha Nanjegowda, Dr. Vinay Kumar B M & Dr. Natchimuthu Subramani** with different specializations.

## AGENDA -2

### **Presentation by Chairman of BOS about Department achievements**

Chairman of BOS Dr. Niranjana P S, Professor & Head, Department of Civil Engineering, presented the achievements of the department in the current academic year 2020-21.

## AGENDA -3

### **Presentation of proceedings of the previous BOS meeting by Chairman of BOS**

Chairman of BOS Dr. Niranjana P S, Professor & Head, Department of Civil Engineering, briefed the proceedings of previous BOS meeting acknowledging their contribution for betterment in framing the scheme & syllabus.

## AGENDA -4

### **Proposed course details for the academic year 2021-22**

#### **I/II sem (2021 Scheme - 160 Credits)**

Sl. No	Course Code	Course Name	Credits distribution				Total Credits	Marks		Remark (LAB/ Hands on Programs)
			L	T	P	S		CIE	SEE	
1	21CIV14A / 21CIV24A	Elements of Civil Engineering	3	0	0	0	3	50	50	<b>Theory</b>
<b>Total Credits</b>							<b>3</b>			

### III sem (2018 Scheme - 175 Credits)

Sl. No	Course Code	Course Name	Credits distribution				Total Credits	Marks		Remark (LAB/ Hands on Programs)	
			L	T	P	S		CIE	SEE		
1	20CIV31A	Applied Mathematics-III	2	1	0	0	3	50	50	<b>Theory</b>	
2	20HSS321A	Economics for Engineers	2	0	0	0	2	25	25	<b>Theory</b>	
3	20HSS324/ 20HSS325	Aadalitha Kannada/ Vyavaharika Kannada	1	0	0	0	1	25	25	<b>Theory</b>	
4	19CIV33	Building Materials & Construction	3	0	0	0	3	50	50	<b>Theory</b>	
5	19CIV34	Strength of Materials	2	1	0	0	3	50	50	<b>Theory</b>	
6	19CIV35	Plane Surveying	3	0	0	0	3	50	50	<b>Theory</b>	
7	19CIV36	Mechanics of Fluids	2	1	0	0	3	50	50	<b>Theory</b>	
8	19CIV37	Material testing Lab	0	0	2	0	2	25	25	Lab	
9	19CIV38	Plane Surveying Lab	0	0	1.5	0	1.5	25	25	Lab	
10	19CIV39	Mechanics of Fluids Lab	0	0	1.5	0	1.5	25	25	Lab	
<i>** The following courses are exclusively for Lateral Entry Students</i>											
1	<i>20DMAT31A</i>	<i>Basic Applied Mathematics - I</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>25</i>	<i>25</i>	<b>Theory</b>	
2	<i>19HSS171</i>	<i>Essential English</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>25</i>	<i>25</i>	<b>Theory</b>	
<b>Total Credits</b>							<b>23</b>				



### IV sem (2018 Scheme - 175 Credits)

Sl. No	Course Code	Course Name	Credits distribution				Total Credits	Marks		Remark (LAB/ Hands on Programs)	
			L	T	P	S		CIE	SEE		
1	20CIV41A	Applied Mathematics-IV	2	1	0	0	3	50	50	<b>Theory</b>	
2	20HSS422A	Life Skills for Engineers	3	0	0	0	3	50	50	<b>Theory</b>	
3	20HSS423A	Environmental Science and Awareness	0	0	0	0	0	25	25	<b>Theory</b>	
4	19CIV43	Concrete Technology	3	0	0	0	3	50	50	<b>Theory</b>	
5	19CIV44	Analysis of Determinate Structures	2	1	0	0	3	50	50	<b>Theory</b>	
6	19CIV45	Higher Surveying	3	0	0	0	3	50	50	<b>Theory</b>	
7	19CIV46	Applied Hydraulics and Machinery	2	1	0	0	3	50	50	<b>Theory</b>	
8	19CIVL47	Higher Surveying Lab	0	0	1.5	0	1.5	25	25	Lab	
9	19CIVL48	Applied Hydraulics and Machinery Lab	0	0	1.5	0	1.5	25	25	Lab	
10	19CIVL49	Mini Project - I	0	0	2	0	2	25	25	Experiential Learning	
<i>** The following courses are exclusively for Lateral Entry Students</i>											
11	<i>20DMAT41 A</i>	<i>Basic Applied Mathematics - II</i>	0	0	0	0	0	<i>25</i>	<i>25</i>	<b>Theory</b>	
12	<i>18HSS272</i>	<i>Constitution of India &amp; Professional Ethics</i>	0	0	0	0	0	<i>25</i>	<i>25</i>	<b>Theory</b>	
<b>Total Credits</b>							<b>23</b>				

**V sem (2018 Scheme - 175 Credits)**

Sl. No	Course Code	Course Name	Credits distribution				Total Credits	Marks		Remark (LAB/ Hands on Programs)
			L	T	P	S		CIE	SEE	
1	20CIV51	Hydrology & Irrigation Engineering	3	0	0	0	3	50	50	<b>Theory</b>
2	20CIV52	Design of RCC Structural Elements	2	1	0	0	3	50	50	<b>Theory</b>
3	20CIV53	Analysis of Indeterminate Structures	2	1	0	0	3	50	50	<b>Theory</b>
4	20CIV54	Basics of Geotechnical Engineering	2	1	0	0	3	50	50	<b>Theory</b>
5	20CIV55	Highway Engineering	3	0	0	0	3	50	50	<b>Theory</b>
6	20CIV56*	Professional Elective-I	3	0	0	0	3	50	50	<b>Theory</b>
7	20CIV57	Concrete Technology Lab	0	0	1.5	0	1.5	25	25	<b>Lab</b>
8	20CIV58	Basics of Geotechnical Engineering Lab	0	0	1.5	0	1.5	25	25	<b>Lab</b>
9	20CIV59	Mini Project - II	0	0	2	0	2	25	25	Experiential Learning
<b>Total Credits</b>							<b>23</b>			

<b>Professional Elective - I</b>	
<b>Course Code</b>	<b>Course</b>
<b>20CIV561</b>	Advanced Surveying
<b>20CIV562</b>	Urban Transport Planning
<b>20CIV563</b>	Open Channel Hydraulics
<b>20CIV564</b>	Advanced Concrete Technology

### VI sem (2018 Scheme - 175 Credits)

Sl. No	Course Code	Course Name	Credits distribution				Total Credits	Marks		Remark (LAB/ Hands on Programs)
			L	T	P	S		CIE	SEE	
1	20CIV61	Environmental Engineering	3	0	0	0	3	50	50	<b>Theory</b>
2	20CIV62	Design and Detailing of RC Structural Element	2	1	0	0	3	50	50	<b>Theory</b>
3	20CIV63	Applied Geotechnical Engineering	2	1	0	0	3	50	50	<b>Theory</b>
4	20CIV64*	Professional Elective-II	3	0	0	0	3	50	50	<b>Theory</b>
5	20CIV65*	Professional Elective-III	3	0	0	0	3	50	50	<b>Theory</b>
6	20NHOPXX	Open Elective-I	3	0	0	0	3	50	50	Hands on Program
7	20CIV66	Environmental Engineering-Lab	0	0	1.5	0	1.5	25	25	Lab
8	20CIV67	Mini project - III	0	0	1.5	0	1.5	25	25	Experiential Learning
9	20CIV68	Mini project - IV	0	0	2	0	2	25	25	Experiential Learning
<b>Total Credits</b>							<b>23</b>			

Professional Elective -II		Professional Elective -III	
Course code	Course	Course code	Course
<b>20CIV641</b>	Traffic Engineering	<b>20CIV651</b>	Structural Dynamics
<b>20CIV642</b>	Alternate Building Material & technology	<b>20CIV652</b>	Pre-Fabricated Structures
<b>20CIV643</b>	Ground Improvement Technique	<b>20CIV653</b>	Design of Pre Stressed Concrete Structures
<b>20CIV644</b>	Mechanization in Construction	<b>20CIV654</b>	Pavement Material & Construction

<b>Open Elective -I</b>	
<b>Course Code</b>	<b>Course</b>
<b>20NHOP601</b>	Big Data Analytics using HP Vertica-1
<b>20NHOP602</b>	VM Ware Virtualization Essentials-1
<b>20NHOP604</b>	Big Data Analytics using HP Vertica-2
<b>20NHOP605</b>	VM Ware Virtualization Essentials-2
<b>20NHOP607</b>	SAP
<b>20NHOP708</b>	Schneider-Industrial Automation
<b>20NHOP609</b>	CISCO-Routing and Switching-1
<b>20NHOP610</b>	Data Analytics
<b>20NHOP611</b>	Machine Learning
<b>20NHOP612</b>	CISCO-Routing and switching - 2
<b>20NHOP613</b>	IIOT – Embedded System
<b>20NHOP614</b>	Block Chain
<b>20NHOP615</b>	Product Life Cycle Management
<b>20NHOP617A</b>	Network security and Cryptography
<b>20NHOP618A</b>	Physical Design
<b>20NHOP619A</b>	AI Data Analysis with Python

### VII sem (2018 Scheme - 175 Credits)

Sl. No	Course Code	Course Name	Credits distribution				Total Credits	Marks		Remark (LAB/ Hands on Programs)
			L	T	P	S		CIE	SEE	
1	20CIV71A	Construction Management & Engineering Economics	3	0	0	0	3	50	50	<b>Theory</b>
2	20CIV72A	Design and drawing of Steel structural elements	2	1	0	0	3	50	50	<b>Theory</b>
3	20CIV73A	Estimation & Valuation	2	1	0	0	3	50	50	<b>Theory</b>
4	20CIV74*A	Professional Elective-IV	3	0	0	0	3	50	50	<b>Theory</b>
5	20CIV75*A	Professional Elective-V	3	0	0	0	3	50	50	<b>Theory</b>
6	20NHOPXX	Open Elective-II	3	0	0	0	3	50	50	Hands on Program
7	20CIV76A	Drawing of Steel structural elements Lab	0	0	1.5	0	1.5	25	25	Lab
8	20CIV77A	Highway Materials Lab	0	0	1.5	0	1.5	25	25	Lab
9	20CIV78A	Project phase-I	0	0	2	0	2	25	25	Experiential Learning
<b>Total Credits</b>							<b>23</b>			

Professional Elective -IV		Professional Elective -V	
Course code	Course	Course code	Course
<b>20CIV741A</b>	Matrix Method of Structural Analysis	<b>20CIV751A</b>	Retrofitting and Rehabilitation of structures
<b>20CIV742A</b>	Theory of Elasticity	<b>20CIV752A</b>	Construction Quality and Safety
<b>20CIV743A</b>	Solid Waste Management	<b>20CIV753A</b>	Design of Masonry Structures
<b>20CIV744A</b>	Design & Drawing of Hydraulic Structures	<b>20CIV754A</b>	Water Resources Engineering
<b>20CIV745A</b>	Transportation systems	<b>20CIV755A</b>	Recycling of Waste water

<b>Open Elective - II</b>	
<b>Course Code</b>	<b>Course</b>
<b>20NHOP701</b>	Big Data Analytics using HP Vertica-1
<b>20NHOP702</b>	VM Ware Virtualization Essentials-1
<b>20NHOP704</b>	Big Data Analytics using HP Vertica-2
<b>20NHOP705</b>	VM Ware Virtualization Essentials-2
<b>20NHOP707</b>	SAP
<b>20NHOP708</b>	Schneider-Industrial Automation
<b>20NHOP709</b>	CISCO-Routing and Switching-1
<b>20NHOP710</b>	Data Analytics
<b>20NHOP711</b>	Machine Learning
<b>20NHOP712</b>	CISCO-Routing and switching - 2
<b>20NHOP713</b>	IIOT – Embedded System
<b>20NHOP714</b>	Block Chain
<b>20NHOP715</b>	Product Life Cycle Management
<b>20NHOP717A</b>	Network security and Cryptography
<b>20NHOP718A</b>	Physical Design
<b>20NHOP719A</b>	AI Data Analysis with Python

**VIII sem (2018 Scheme – 175 Credits)**

Sl. No	Course Code	Course Name	Credits distribution				Total Credits	Marks		Remark (LAB/ Hands on Programs)
			L	T	P	S		CIE	SEE	
1	20CIV81*A	Professional Elective-VI	3	0	0	0	3	50	50	<b>Theory</b>
2	20CIV82*A	Professional Elective-VII	3	0	0	0	3	50	50	<b>Theory</b>
3	20CIV83A	Internship	0	0	4	0	4	50	50	Experiential Learning
4	20CIV84A	Project Work phase-II	0	0	10	0	10	150	150	Experiential Learning
<b>Total Credits</b>							<b>20</b>			

Professional Elective-VI		Professional Elective-VII	
Course Code	Course	Course Code	Course
<b>20CIV811A</b>	Industrial waste water treatment	<b>20CIV821A</b>	Pavement Design
<b>20CIV812A</b>	Numerical Method of Civil Engineering	<b>20CIV822A</b>	Rural water Supply & Sanitation
<b>20CIV813A</b>	Earth and Earth Retaining Structures	<b>20CIV823A</b>	Advanced R.C Structures
<b>20CIV814A</b>	Bridge Engineering	<b>20CIV824A</b>	Ground Water Hydrology
<b>20CIV815A</b>	Air pollution	<b>20CIV825A</b>	Advanced Pre-stressed Concrete Structures

## AGENDA -5

### **Presentation of draft of Scheme & Syllabus of Final year Civil Engineering Subjects for ratification**

- ✓ The Chairperson presented the draft of scheme and Contents of syllabus in each subject for seventh and eighth semester for scrutiny. The details were scrutinized by the members of the Board.

#### ❖ Seventh semester Civil Engineering Subjects :-

SL NO	SUBJECT CODE	SUBJECT
1	20CIV71A	Construction Management & Engineering Economics
2	20CIV72A	Design and drawing of Steel structural elements
3	20CIV73A	Estimation & Valuation
4	20CIV74*A	Professional Elective-IV
A	20CIV741A	Matrix Method of Structural Analysis
B	20CIV742A	Theory of Elasticity
C	20CIV743A	Solid Waste Management
D	20CIV744A	Design & Drawing of Hydraulic Structures
E	20CIV745A	Transportation systems
5	20CIV75*A	Professional Elective-V
A	20CIV751A	Retrofitting and Rehabilitation of structures
B	20CIV752A	Construction Quality and Safety
C	20CIV753A	Design of Masonry Structures
D	20CIV754A	Water Resources Engineering
E	20CIV755A	Recycling of Waste water
6	20NHOP7XX	Open Elective-II
A	20NHOP701	Big Data Analytics using HP Vertica-1
B	20NHOP702	VM Ware Virtualization Essentials-1
C	20NHOP704	Big Data Analytics using HP Vertica-2
D	20NHOP705	VM Ware Virtualization Essentials-2
E	20NHOP707	SAP



F	<b>20NHOP708</b>	Schneider-Industrial Automation
G	<b>20NHOP709</b>	CISCO-Routing and Switching-1
H	<b>20NHOP710</b>	Data Analytics
I	<b>20NHOP711</b>	Machine Learning
J	<b>20NHOP712</b>	CISCO-Routing and switching - 2
K	<b>20NHOP713</b>	IIOT - Embedded System
L	<b>20NHOP714</b>	Block Chain
M	<b>20NHOP715</b>	Product Life Cycle Management
N	<b>20NHOP717A</b>	Network security and Cryptography
O	<b>20NHOP718A</b>	Physical Design
P	<b>20NHOP719A</b>	AI Data Analysis with Python
7	<b>20CIV76A</b>	<b>Drawing of Steel structural elements</b>
8	<b>20CIV77A</b>	<b>Highway Materials Lab</b>
9	<b>20CIV78A</b>	<b>Project Work phase-I</b>

❖ **Eighth Semester Civil Engineering Subjects :-**

SL NO	SUBJECT CODE	SUBJECT
<b>1</b>	<b>20CIV81*A</b>	<b>Professional Elective-VI</b>
A	20CIV811A	Industrial waste water treatment
B	20CIV812A	Numerical Method of Civil Engineering
C	20CIV813A	Earth and Earth Retaining Structures
D	20CIV814A	Bridge Engineering
E	20CIV815A	Air pollution
<b>2</b>	<b>20CIV82*A</b>	<b>Professional Elective-VII</b>
A	20CIV821A	Pavement Design
B	20CIV822A	Rural water Supply & Sanitation
C	20CIV823A	Advanced R.C Structures
D	20CIV824A	Ground Water Hydrology
E	20CIV825A	Advanced Pre-stressed Concrete Structures
<b>3</b>	<b>20CIV83A</b>	<b>Internship</b>
<b>4</b>	<b>20CIV84A</b>	<b>Project Work phase-II</b>

## **AGENDA -6**

### **Recommendations/ Suggestions of BOS members**

- ✓ Board Members felt the need of fine tuning of CO PO mapping for the following subjects
  1. Design and drawing of Steel structural elements
  2. Estimation & Valuation
  3. Professional Elective-IV
    1. Matrix Method of Structural Analysis
    2. Theory of Elasticity
    3. Solid Waste Management
    4. Design & Drawing of Hydraulic Structures
    5. Transportation systems
  4. Professional Elective-V
    1. Construction Quality and Safety
    2. Design of Masonry Structures
    3. Water Resources Engineering
    4. Recycling of Waste water
    5. Drawing of Steel structural elements
    6. Highway Materials Lab
    7. Project Work phase-I
  5. Professional Elective-VI
    1. Industrial waste water treatment
    2. Numerical Method of Civil Engineering
    3. Earth and Earth Retaining Structures
    4. Bridge Engineering
    5. Air pollution
  6. Professional Elective-VII
    6. Rural water Supply & Sanitation
    7. Advanced R.C Structures
    8. Ground Water Hydrology
    9. Advanced Pre-stressed Concrete Structures
  
- ✓ Board members suggested to modify/reduce the syllabus content of Design and Detailing of Steel Structural Elements (21CIV72).
  
- ✓ Board members suggested to incorporate the concept of “Safety against the Fire in constructions” in the syllabus of Construction Quality and Safety (21CIV752).

- ✓ Board members insisted to print rubrics for all phases of evaluation of Project work and Internship in the curriculum.
- ✓ Board members suggested to include one course of each specialization in each cluster of list of electives. The tentative themes were
  - a) Structures and Materials
  - b) Environmental Engineering
  - c) Transportation and Geotechnical Engineering
  - d) Surveying, GIS/GPS
  - e) Estimation, valuation and Management
  - f) Water resources
  - g) Others.
- ✓ Board members felt that the syllabus proposed in all the courses seem to be high for teaching in the classroom. Some topics may be taught through experiential learning and the contents must be checked with number of hours allotted.
- ✓ Board members proposed experiential learning model to be adopted to align with National Education Policy – 2020. They also proposed to allot 30% assessment based on self study / assignment. They suggested to adopt any 5-6 types of experiential learning methods selected from the below mentioned exhaustive list:
  - h) Group Discussion
  - i) Presentation
  - j) App Development
  - k) IoT application to the course related area
  - l) AI/ML related to the course
  - m) Visit to a factory/site and preparation of report
  - n) Journal paper study
  - o) Book reading
  - p) Model making
  - q) U-Tube utilization
  - r) Video graphing of practical aspects etc
- ✓ Board members proposed revamping of Teaching – Learning process, adoption of blended learning method (Offline – Online) in the tentative ratio of 80:20, depending on the courses, reduction in number of course outcomes from 6 to 4, introduction of online quizzes, adoption of interdisciplinary approach with industry connect for the project work, notification of maximum limit in plagiarism.
- ✓ Over all, External BOS members appreciated the efforts in framing the Scheme & Syllabus of Final year and especially lauded the perfect balance achieved centric to the themes of Civil Engineering in the contents of curriculum.

## **AGENDA -7**

### **Implementation of recommendation of BOS members**

The chairperson constituted the following groups to review and implement the recommendations of the BOS members in the scheme and syllabus of the curriculum based on industry needs.

<b>Sl No</b>	<b>Subject code</b>	<b>Subject</b>	<b>Faculty</b>
1	20CIV71A	Construction Management & Engineering Economics	1. Dr. Niranjana P S 2. Dr. Vinay Kumar B M
2	20CIV751A	Retrofitting and Rehabilitation of structures	3. Dr. Natchimuthu Subramani
3	20CIV752A	Construction Quality and Safety	4. Dr. Giriprasad C
4	20CIV78A	Project phase-I	5. Mr. Sudhakar G N
5	20CIV84A	Project Work phase-II	6. Ms. Suma P
6	20CIV72A	Design and drawing of Steel structural elements	
7	20CIV741A	Matrix Method of Structural Analysis	1. Mr. Surendra B V
8	20CIV742A	Theory of Elasticity	2. Mr. Rajendra T N
9	20CIV753A	Design of Masonry Structures	3. Ms. Snehal R L
10	20CIV76A	Drawing of Steel structural elements	4. Mr. Prakash A N
11	20CIV812A	Numerical Method of Civil Engineering	5. Mr. Yogesh K S
12	20CIV814A	Bridge Engineering	6. Mr. Channabasava
13	20CIV823A	Advanced R.C Structures	7. Mr. Rahul N K
14	20CIV825A	Advanced Pre-stressed Concrete Structures	
15	20CIV743A	Solid Waste Management	1. Dr. Jagadeesh C B
16	20CIV744A	Design & Drawing of Hydraulic Structures	2. Dr. Geetha Varma V
17	20CIV754A	Water Resources Engineering	3. Dr. Mahesha Nanjegowda
18	20CIV755A	Recycling of Waste water	4. Ms. Swetti Jha 5. Ms. Serin Issac

19	20CIV811A	Industrial waste water treatment	6. Ms. Geethu V
20	20CIV813A	Earth and Earth Retaining Structures	
21	20CIV815A	Air pollution	
22	20CIV822A	Rural water Supply & Sanitation	
23	20CIV824A	Ground Water Hydrology	
24	20CIV745A	Transportation systems	
25	20CIV73A	Estimation & Valuation	
26	20CIV77A	Highway Materials Lab	
27	20CIV821A	Pavement Design	
28	20CIV83A	Internship	

The groups reviewed the curriculum and affected the changes regarding issues raised by external BOS members.

## AGENDA -8

### **Approval of Scheme & Syllabus of Final year Civil Engineering Subjects**

The Board of Studies members reviewed the modified draft of the scheme & syllabus with their recommendations/suggestions being incorporated appropriately.

Finally, the members approved the draft of the same with the modifications for final implementation.

#### ❖ Seventh semester Civil Engineering Subjects :-

SL NO	SUBJECT CODE	SUBJECT	% Additions / Deletions in Modules	Proposed Experiential Learning in the Modules	Industrial inputs in the Modules	Percentage change in the syllabus for (AY 2020-2021 to AY 2021-22)
1	20CIV71A	Construction Management & Engineering Economics	10%	Case studies, Industrial Visit	Inclusion of Material Management and Equipment Management	10%
2	20CIV72A	Design and drawing of Steel structural elements	20%	Case studies Industrial Visit	Inclusion of case studies	20%
3	20CIV73A	Estimation & Valuation	0%	Site Visits	Inclusion of case studies	0%
4	<b>20CIV74*A Professional Elective-IV</b>					
A	20CIV741A	Matrix Method of Structural Analysis	5%	Analyzing the simple framed structure by matrix approach and preparing the brief report	Analysis of Industrial truss by incorporating the effects like temperature variation, support sink etc.	5%
B	20CIV742A	Theory of Elasticity	0%	Site Visits required, Referring journal papers	Introduction to theory of Plates and Torsion are included.	0%
C	20CIV743A	Solid Waste Management	70%	Case studies Industrial Visit	Inclusion of E waste management	70%
D	20CIV744A	Design & Drawing of Hydraulic Structures	0%	Case studies and site visits (Irrigation tour)	Hands-on training - Surplus weir with stepped apron, Tank Plug sluice without tower head, Notch type Canal drop and Canal Cross regulator using IT tools.	0%

E	20CIV745A	Transportation systems	0%	Site Visit	inclusion of types of rail system transportation	0%
<b>5</b>	<b>20CIV75*A Professional Elective-V</b>					
A	20CIV751A	Retrofitting and Rehabilitation of structures	New subject introduced from current academic year	Presentation, Site Visit and Preparation of the report	Inclusion of Global retrofitting methods and shotcreting	NA
B	20CIV752A	Construction Quality and Safety	New subject introduced from current academic year	Site Visit, Referring Journal Papers	Inclusion of safety legislation and standards, Ergonomics	NA
C	20CIV753A	Design of Masonry Structures	0 %	Case studies Industrial Visit	Inclusion of case studies	0 %
D	20CIV754A	Water Resources Engineering	70%	Case studies, Industrial visit	Inclusion of GIS and Remote Sensing techniques in the field of Water Resources Engineering	70%
E	20CIV755A	Recycling of Waste water	New subject introduced from current academic year	Case studies, Industrial visit	Analysis of special water quality parameters using advanced instruments	NA
<b>7</b>	<b>20CIV76A</b>	<b>Drawing of Steel structural elements</b>	0 %	Case studies Industrial Visit	Inclusion of case studies	0 %
<b>8</b>	<b>20CIV77A</b>	<b>Highway Materials Lab</b>	0%	Demonstration and Site Visits	Inclusion of Brookfield viscosity test and finding out Bitumen content test	0%
<b>9</b>	<b>20CIV78A</b>	<b>Project Work phase-I</b>	NA	The entire work has to be carried out by the batch (Max.4 members) of students.	Rubrics have to be mentioned.	NA

❖ **Eighth Semester Civil Engineering Subjects :-**

SL NO	SUBJECT CODE	SUBJECT	% Additions / Deletions in Modules	Proposed Experiential Learning in the Modules	Industrial inputs in the Modules	Percentage change in the syllabus for (AY 2020-2021 to AY 2021-22)
<b>1</b>	<b>21CIV81* Professional Elective-VI</b>					
A	20CIV811A	Industrial waste water treatment	30%	Industrial site visit to any treatment plant	Treatment of waste water in industries	30%
B	20CIV812A	Numerical Method of Civil Engineering	0 %	Case studies	Inclusion of case studies	0 %
C	20CIV813A	Earth and Earth Retaining Structures	0%	Site Visits	Earth dam protection measures may be included	0%
D	20CIV814A	Bridge Engineering	0 %	Case studies, Industrial visit	Inclusion of case studies	0 %
E	20CIV815A	Air pollution	0%	Site Visits	Develop air pollution control technologies.	0%
<b>2</b>	<b>21CIV82*A Professional Elective-VII</b>					
A	20CIV821A	Pavement Design	0%	Site Visits	Demonstration of Pavement design software	0%
B	20CIV822A	Rural water Supply & Sanitation	5%	Case studies & Site visits	Water harvesting system model study	5%
C	20CIV823A	Advanced R.C Structures	0%	Site Visits are intended	Yield Line theory and Design of Chimneys included	0%
D	20CIV824A	Ground Water Hydrology	5%	Case studies, Industrial visit	Hands-on training on Electrical Resistivity method and interpretation of electrical resistivity data.	5%
E	20CIV825A	Advanced Pre-stressed Concrete Structures	0%	Industrials visits are intended	Analysis of statically indeterminate beam included	0%
<b>3</b>	<b>20CIV83A</b>	<b>Internship</b>	NA	Rubrics have to be mentioned.	Rubrics have to be mentioned.	NA
<b>4</b>	<b>20CIV84A</b>	<b>Project Work phase-II</b>	NA	The entire work has to be carried out by the batch (Max.4 members) of students.	Rubrics have to be mentioned.	NA



**Name and Signatures of all the Attendees:**

<b>Sl. No.</b>	<b>Name</b>	<b>Signature</b>	<b>Sl. No.</b>	<b>Name</b>	<b>Signature</b>
1	Dr. Niranjana P S		9	Dr. Vinay Kumar B M	
2	Dr. K N Vishwanath		10	Dr. Natchimuthu Subramani	
3	Dr. Radha Krishna		11	Mr. Mahesh T	
4	Dr. P Prasanna Kumar		12	Mr. N VijayaBhaskar	
5	Dr. Jagadeesh C B		13	Mr. Shantayya. H	
6	Prof. Surendra B V		14	Mr. Binod Kumar Singh	
7	Dr. GeethaVarma		15	Ms. Suma P	
8	Dr. N.Mahesh				

**AGENDA -9**

**Vote of Thanks by the chairman of BOS**

The chairman of BOS thanked the external members for their fruitful participation on behalf of the Principal and the Management. He also thanked Dr. Amarjeet Singh, Prof & Dean – Academic and all the other members of the BOS for their active participation.

**Dr. Niranjana P S**

**Chairman**

**Board of Studies**

**Department of Civil Engineering**