

## DEPARTMENT OF CIVIL ENGINEERING

### Action Taken Report on M. Tech Structures Program R 14 Feedback Implemented in R17 introduced in the AY 2017- 18

#### *Action taken based on the suggestions from Students:*

- Q1.The Course Contents of Curriculum are in tune with the Program Outcomes
- Q2.The Course Contents are designed to enable Problem Solving Skills and Core competencies
- Q3.Courses placed in the curriculum serves the needs of both advanced and slow learners
- Q4.Contact Hour Distribution among the various Course Components (LTP) is Satisfiable
- Q5.Electives have enabled the passion to learn new technologies in emerging areas of Structural Engineering
- Q6.The Curriculum is providing opportunity towards Self learning to realize the expectations of present trend in design and research needs
- Q7.Inclusion of Employability Orientation Program and Research Methodology in the curriculum is useful in career enhancement
- Q8.No. of Laboratory Sessions Integrated with Theory Courses have been sufficient to improve the technical as well as practical skills in Structural Engineering
- Q9.Introducing Mini Projects and Socio-centric Projects along with Theory Courses improved the research competency and leadership skills among the students

#### Analysis of Overall Feedback given by the Students on R 14

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	54.7	41.5	3.8	0	0	4.509	Excellent
Q2	51.9	46.2	1.9	0	0	4.5	Excellent
Q3	22.6	59.4	17	0	0.9	4.025	Excellent
Q4	29.2	36.8	29.2	1.9	2.8	3.874	Very Good
Q5	18.9	62.3	17	0	1.9	3.966	Very Good
Q6	34.9	45.3	19.8	0	0	4.151	Excellent
Q7	27.4	57.5	15.1	0	0	4.123	Excellent
Q8	29.2	58.5	12.3	0	0	4.169	Excellent
Q9	33	55.7	9.4	0	0.9	4.169	Excellent

### Itemized responses given to the Suggestions of Students

**Suggestion:** Need Training on Building Information Modelling

**Action Taken:** Planned Value added courses on Revit Architecture, Structures and BIM

**Suggestion:** Require Beam Testing Machine

**Action Taken:** Planning to purchase Loading Frame with the help of CSIR-SERL

**Suggestion:** Conduct Industrial visits

**Action Taken:** Integrated all the laboratory courses with theory to enhance practical exposure

**Suggestion:** Need practical experiences and hands-on.

**Action Taken:** In core courses actives are introduced to give practical exposure and make the student's industry ready

**Suggestion:** Need Spacious labs

**Action Taken:** Established individual lab for Structural Engineering and planning to purchase new equipment

### *Action taken based on the suggestions from Alumni:*

Q1.The Curriculum has paved a good foundation in understanding the basic Structural Engineering Concepts

Q2.The Course Contents of Curriculum are in tune with the Program Outcomes

Q3.The Curriculum is imparting all the required Job and Research Oriented Skills

Q4.Professional and Open Electives of Curriculum have served the technical advancements needed to serve in the Structural Design Requirements and Research Methodologies

Q5.Tools and Technologies learnt during laboratory sessions has enriched the problem solving skills and research abilities

Q6.Competing with your peers from other Universities

Q7.Current Curriculum is superior than your studied Curriculum

### Analysis of Overall Feedback given by the Alumni on R 14

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	50	50	0	0	0	4.5	Excellent
Q2	62.5	12.5	25	0	0	4.375	Excellent
Q3	62.5	37.5	0	0	0	4.625	Excellent
Q4	50	50	0	0	0	4.5	Excellent
Q5	62.5	12.5	25	0	0	4.375	Excellent
Q6	50	37.5	12.5	0	0	4.375	Excellent
Q7	50	37.5	0	12.5	0	4.25	Excellent

### **Itemized responses given to the suggestions of Alumni**

**Suggestion:** Give more trainings on Finite Element Software

**Action Taken:** In view of ongoing demand and usage of finite element software ANSYS structures licensed version was purchased and included as MMFEA Lab component

**Suggestion:** Improve the Structural Engineering Lab with advanced equipment

**Action Taken:** Proposed to purchase loading frame and similar advanced equipment

**Suggestion:** Need more diversified electives in to curriculum

**Action Taken:** Increased pool of electives with inclusion of emerging courses like Pre Engineered Buildings, Experimental Stress Analysis, Construction and Project Management etc.

**Suggestion:** Need more training on Employability Orientation

**Action Taken:** Introduced EOP as one credit course to increase the effectiveness of orientation program

**Suggestion:** Provide the durability tests and equipment

**Action Taken:** Proposed to purchase durability equipment like RCPT, ACPT and planning to incorporate those experiments in the curriculum

### ***Action taken based on the suggestions from Faculty:***

- Q1.The Course Contents of Curriculum are in tune with the Program Outcomes
- Q2.Course Contents can enhance the Problem Solving Skills and Core competencies
- Q3.Allocation of Credits to the Courses are Satisfiable
- Q4.Contact Hour Distribution among the various Course Components (LTP) is Satisfiable
- Q5.Electives enable the passion to learn new technologies in emerging areas of Structural Engineering
- Q6.The Curriculum is providing opportunity towards Self learning to realize the expectations of present trend in design and research needs
- Q7.The inclusion of Employability Orientation Program and Research Methodology in the curriculum satisfiable
- Q8.The number of theoretical courses amalgamated with laboratory sessions are sufficient to improve the technical skills of students
- Q9.Introducing Mini Projects and Socio-centric Projects along with Theory Courses improved the research competency and leadership skills among the students

### Analysis of Overall Feedback given by the Faculty on R 14

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	71.2	10.2	3.4	0	1.7	4.087	Excellent
Q2	64.4	22	0	0	0	4.1	Excellent
Q3	71.2	15.3	0	0	0	4.172	Excellent
Q4	69.5	15.3	1.7	0	0	4.138	Excellent
Q5	64.4	18.6	3.4	0	0	4.066	Excellent
Q6	71.2	13.6	1.7	0	0	4.155	Excellent
Q7	72.9	8.5	5.1	0	0	4.138	Excellent
Q8	71.2	8.5	3.4	0	3.4	4.036	Excellent
Q9	71.2	8.5	1.7	5.1	0	4.053	Very Good

#### Itemized responses given to the suggestions of Faculty

**Suggestion:** Provide Training on BIM Software

**Action Taken:** Planned value added courses in first and second semester to teach BIM Software

**Suggestion:** Provide more information on Structural Health Monitoring topics

**Action Taken:** Introduced Repair and Rehabilitation of Structures as core elective

**Suggestion:** Incorporate Lab Experiments on Micro Structure

**Action Taken:** Equipped Centre of Excellence with SEM and EDax to analyse micro structure of building materials

**Suggestion:** Provide training on Research Paper Writing

**Action Taken:** Research methodology course has been introduced as a one credit course in the second semester

**Suggestion:** Provide information on Non-Destructive Testing

**Action Taken:** Introduced UPV and Rebound Hammer Testing Techniques in Advanced Concrete Technology

### **Action taken based on the suggestions from Employers:**

- Q1.The Course Contents of Curriculum are in tune with the Program Outcomes
- Q2.The Course Contents are enriching the Construction Industry Demands and Research Needs
- Q3.Core Electives and Open Elective are in-line with the technology advancements
- Q4.Applicability of the tools and technologies described in the curriculum are sufficient to practice in Existing Construction Practices
- Q5.Problem Solving and Soft Skills acquired by the students through the course contents will enable them to be place in Public Sector Units, MNC's, Government Sectors and Research Agencies.

### **Analysis of Overall Feedback given by the Employers on R 14**

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	89.4	10.6	0	0	0	4.894	Excellent
Q2	95.5	4.5	0	0	0	4.955	Excellent
Q3	72.7	27.3	0	0	0	4.727	Excellent
Q4	63.6	21.2	15.2	0	0	4.484	Excellent
Q5	33.3	25.8	27.3	12.1	0	3.758	Very Good

### **Itemized responses given to the suggestions of Employers**

**Suggestion:** Introduce software in the laboratory

**Action Taken:** Introduced MAT LAB in Structural Dynamics and ANSYS & Abaqus in MMFEA.

**Suggestion:** Provide more electives on Earthquake Engineering.

**Action Taken:** Retrofitting of Structures due to Earthquake Damages course has been introduced and provided lab component on SAP 2000 or E Tabs for ERDS Course

**Suggestion:** Provision of Durability Testing Equipment

**Action Taken:** Proposed to purchase durability equipment like RCPT, ACPT etc

**Suggestion:** Offer Internships in the second year

**Action Taken:** As per suggestions included Industry Internship is continued in this curriculum also.

***Action taken based on the suggestions from Parents:***

1. Curriculum enhances the intellectual aptitude of your ward
2. Curriculum realizes the personality development and technical skilling of your ward
3. Satisfaction about the Academic, Emotional Progression of your ward
4. Competency of your ward is on par with the students from other Universities/Institutes
5. Course Curriculum is of the global standard and is in tune with the needs of construction Industry

**Analysis of Overall Feedback given by the Parents on R 14**

Parameters	Strongly Agree	Agree	Moderate	Disagree	Strongly Disagree	Avg. Rating	Grade
Q1	71.4	28.6	0	0	0	4.714	Excellent
Q2	71.4	28.6	0	0	0	4.714	Excellent
Q3	57.1	42.9	0	0	0	4.571	Excellent
Q4	57.1	42.9	0	0	0	4.571	Excellent
Q5	28.6	57.1	14.3	0	0	4.143	Excellent

**Itemized responses given to the suggestions of Parents**

**Suggestion:** Introduce Practical Projects

**Action Taken:** All the laboratories are integrated with theory courses to give more emphasis on practical knowledge

**Suggestion:** Add employability courses in curriculum

**Action Taken:** Introduced employability orientation programme and giving credits to it  
**Suggestion:** Lab Facilities can be improved further

**Action Taken:** Proposed to Purchase recent equipment like Loading Frame, RCPT, ACPT and Rebound Hammer and Planning to Establish Structural Engineering Laboratory.

A. V. Hebbar  
HoD, CE