

(Private University Estd. in Karnataka State by Act No.41 of 2013)

# DEPARTMENT OF CIVIL ENGINEERING

### Feedback from M.Tech Students and action taken report

| SI.<br>No. | Feedback   | Action Taken  |
|------------|--|---|
| 1          | Introduce information related to current<br>Industry requirements and practices in<br>classes. Introduce more content related to<br>real life application. | Every semester Guest lectures, Invited<br>talks and workshops are being<br>organized to expose students and<br>faculty to latest developments in the<br>industry. Students as well as faculty<br>are supported and encouraged to<br>participate in National and<br>International conferences, workshops<br>Industry expos and symposium |

## Feedback from Faculty Members on M.Tech program and action taken report

| SI.<br>No. | Feedback   | Action Taken  |
|------------|--|---|
| 1          | More skill-based courses must be<br>introduced to increase the employability<br>of the students as well as to extract the<br>full potential of faculty. We can focus on<br>the current application in the industry and<br>try to focus on those topics more in class<br>rather than following the traditional<br>approach for example we can use simple<br>tools such R, Microsoft excel, simple<br>programs, analysis software as<br>replacement of manual solving. It might<br>interest the students and help them to get<br>better placement. | 6 Value added courses are being<br>offered to increase the skill of<br>students. Faculty are being<br>encouraged to give assignments based<br>on programming as well as problem<br>solving based on use of other tools like<br>excel and R. |

## Feedback from Employer on M.Tech students and action taken report

| SI.<br>No. | Feedback   | Action Taken   |
|------------|--|--|
| 1          | Practical sessions to be implemented with theory knowledge | Theory Courses are being revised into lab<br>integrated theory courses to give practical<br>sessions along with theory knowledge |





| 2 | Provide more site visits | To enable experiential learning and<br>provide more site visits, courses are being<br>designed to incorporate at least one site<br>visit relevant to the course and students<br>are being given an assessment activity<br>based on the site visit as well. |
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### Feedback from Alumni and action taken report

| SI.<br>No. | Feedback  | Action Taken  |
|------------|---|---|
| 1          | General construction related topics could help in field.  | Courses on Construction Technology<br>and Process, Construction Equipment<br>and Machinery as well as a Course on<br>Concept of Building services are<br>introduced.  |
| 2          | Learning about more Industry relevant<br>skills/ Software   | Lab Integrated Theory courses are<br>being offered in Building Information<br>Modelling, Construction Projection<br>Management, Remote Sensing and GIS,<br>Computer Aided Analysis and Detailing;<br>Earthquake resistant Design of<br>Structures have been introduced where<br>relevant software is being taught to<br>students. |
| 3          | In terms of Survey our curriculum was<br>needs to be updated to include latest<br>methods of surveying. | The syllabus has been updated to<br>include a module on Drone surveying<br>(PPK Based) as well as experiments on<br>Total Station in place of theodolite and<br>tacheometer based surveying exercise.   |

Pursuant to feedback received from stakeholders, new courses have been added to curriculum as shown in Annexure 12.6.1 and revised courses are shown in Annexure 12.6.2

### Annexure 12.6.1 - List of New Courses

|           | NEWLY PROPOSED COURSES FOR B.TECH (CIVIL ENGINEERING) |  |   |   |   |  |  |  |  |
|-----------|---|--|---|---|---|--|--|--|--|
| S.<br>No. | COURSE<br>CODE  | COURSE NAME                            | L | Р | C |  |  |  |  |
| 1         | CIV 2013  | Analysis of Determinate Structures     | 4 | 0 | 4 |  |  |  |  |
| 2         | CIV 3002  | Analysis of Indeterminate Structures   | 4 | 0 | 4 |  |  |  |  |
| 3         | CIV 2001  | Sustainability Concepts in Engineering | 3 | 0 | 3 |  |  |  |  |
| 4         | CIV 2004  | Integrated Project Management          | 3 | 0 | 3 |  |  |  |  |





|           | NEWLY PROPOSED COURSES FOR B.TECH (CIVIL ENGINEERING) |  |   |   |   |  |  |  |
|-----------|---|--|---|---|---|--|--|--|
| S.<br>No. | COURSE<br>CODE  | COURSE NAME                                      | L | Р | С |  |  |  |
| 5         | CIV 2044  | Geospatial Applications for Engineers            | 2 | 2 | 3 |  |  |  |
| 6         | CIV 3045  | Big Data Analytics for Civil Engineers           | 3 | 0 | 3 |  |  |  |
| 7         | CIV 3032  | Design of Hydraulic Structures                   | 3 | 0 | 3 |  |  |  |
| 8         | CIV 2022  | Railway Engineering and Tunnelling               | 3 | 0 | 3 |  |  |  |
| 9         | CIV 2023  | Airport Engineering and Harbour                  | 3 | 0 | 3 |  |  |  |
| 10        | CIV 3025  | Environmental Geotechnics                        | 3 | 0 | 3 |  |  |  |
| 11        | CIV 3005  | Computer Aided Analysis & Detailing Lab          | 0 | 2 | 1 |  |  |  |
| 12        | CIV 2012  | Building Information Modelling                   | 1 | 4 | 3 |  |  |  |
| 13        | CIV 1004  | Basic Construction Practice                      | 0 | 2 | 1 |  |  |  |
| 14        | CIV 1003  | Elements of Engineering Mechanics                | 3 | 0 | 3 |  |  |  |
| 15        | CIV 2016  | Transportation Engineering                       | 3 | 0 | 3 |  |  |  |
| 16        | CIV 2046  | Construction Technology and Processes            | 3 | 0 | 3 |  |  |  |
| 17        | CIV 1007  | Building Planning and Drawing                    | 0 | 2 | 1 |  |  |  |
| 18        | CIV 1001  | Disaster management and mitigation               | 3 | 0 | 3 |  |  |  |
| 19        | CIV 2041  | Fundamentals of Smart City                       | 3 | 0 | 3 |  |  |  |
| 20        | CIV 3047  | Fundamentals of Pre-stressed Concrete Structures | 3 | 0 | 3 |  |  |  |
| 21        | CIV 2011  | Environmental Engineering                        | 2 | 2 | 3 |  |  |  |
| 22        | CIV 2010  | Hydrology and Irrigation Systems                 | 3 | 0 | 3 |  |  |  |

|           | NEW COURSES FOR M.TECH (BUILDING CONSTRUCTION TECHNOLOGY) |  |         |        |               |  |  |  |
|-----------|---|--|---------|--------|---------------|--|--|--|
| S.<br>No. | COURSE<br>CODE  | COURSE NAME  | L       | Р      | С             |  |  |  |
| 1         | CIV 363   | Applications of Remote Sensing and GIS in Construction | 3       | 0      | 3             |  |  |  |
| 2         | CIV 307   | Elements of Prestressed Concrete Structures            | 3       | 0      | 3             |  |  |  |
| 3         | CIV 6004  | Retrofitting and Repair Techniques                     | 3       | 0      | 3             |  |  |  |
| 4         | CIV 6005  | Formwork and Scaffolding Design                        | 3       | 0      | 3             |  |  |  |
| 5         | CIV 5010  | Building Automation and 3D Printing                    | 3       | 0      | 3             |  |  |  |
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| 6  | CIV 6007 | Seismic analysis and Design of Buildings             | 3 | 0 | 3  |
|----|----------|--|---|---|----|
| 7  | CIV 5001 | Sustainable Smart Cities                             | 3 | 0 | 3  |
| 8  | CIV 5002 | Systems Design for Sustainability                    | 3 | 0 | 3  |
| 9  | PIP 6001 | Dissertation/ Internship - I                         | - | - | 10 |
| 10 | PIP 6002 | Dissertation/ Internship - II                        | - | - | 14 |
| 11 | CIV 6002 | Building Services and Building Information Modelling | 2 | 2 | 3  |
| 12 | URE 6001 | Research Experience                                  | - | - | 3  |

## **<u>12.6.2 - List of Revised Courses</u>**

|           | <b>REVISED COURSES FOR B.TECH (CIVIL ENGINEERING)</b> |  |   |   |   |  |  |
|-----------|---|--|---|---|---|--|--|
| S.<br>No. | COURSE<br>CODE  | COURSE NAME                                | L | Р | С |  |  |
| 1         | CIV 201   | Strength of Materials                      | 4 | 0 | 4 |  |  |
| 2         | CIV 202   | Surveying                                  | 4 | 0 | 4 |  |  |
| 3         | CIV 203   | Engineering Geology                        | 3 | 0 | 3 |  |  |
| 4         | CIV 208   | Fluid Mechanics                            | 4 | 0 | 4 |  |  |
| 5         | CIV 219   | Building Materials and Concrete Technology | 3 | 0 | 3 |  |  |
| 6         | CIV 252   | Surveying Practice                         | 0 | 2 | 1 |  |  |
| 7         | CIV 210   | Geotechnical Engineering                   | 4 | 0 | 4 |  |  |
| 8         | CIV 253   | Engineering Geology Lab                    | 0 | 2 | 1 |  |  |
| 9         | CIV 254   | Fluid Mechanics Lab                        | 0 | 2 | 1 |  |  |
| 10        | CIV 211   | Design of RC Structural Elements           | 4 | 0 | 4 |  |  |
| 11        | CIV 213   | Design of Structural Steel Elements        | 4 | 0 | 4 |  |  |
| 12        | CIV 215   | Estimating, Costing and Valuation          | 4 | 0 | 4 |  |  |



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| 13 | CIV 381 | Construction Project Management | 3 | 0 | 3 |
|----|---------|---------------------------------|---|---|---|
| 14 | CIV 384 | Occupational Health and Safety  | 3 | 0 | 3 |

| R         | <b>REVISED COURSES FOR M.TECH (BUILDING CONSTRUCTION TECHNOLOGY)</b> |  |   |   |   |  |  |
|-----------|--|--|---|---|---|--|--|
| S.<br>No. |  | COURSE NAME  | L | Р | С |  |  |
| 1         | CIV 351  | Advanced Construction Materials and Technology         | 4 | 0 | 4 |  |  |
| 2         | CIV 352  | Quality, Risk and Safety in Construction               | 4 | 0 | 4 |  |  |
| 3         | CIV 353  | Construction Planning, Schedule and Control            | 4 | 0 | 4 |  |  |
| 4         | CIV 354  | Mechanization in Construction                          | 3 | 0 | 3 |  |  |
| 5         | CIV 511  | Material Characterization Lab                          | 0 | 2 | 1 |  |  |
| 6         | CIV 355  | Construction Economics and Contract Specifications     | 3 | 1 | 4 |  |  |
| 7         | CIV 357  | Advanced Design of RC Structures                       | 3 | 1 | 4 |  |  |
| 8         | CIV 358  | Construction Demolition and Waste Management           | 4 | 0 | 4 |  |  |
| 9         | CIV363   | Applications of Remote Sensing and GIS in Construction | 2 | 2 | 3 |  |  |

The syllabus of the new courses and revised courses as approved by the Board of Studies is included in the relevant PRCs



