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Kakinada.

**DEPARTMENT OF CIVIL ENGINEERING**

**4 Years B.Tech. (Civil Engineering) Course Structure : GRBT-19**

**I YEAR I SEMESTER**

| S. No.       | Course Code | Course Type | Course Title                                   | Periods per week |          |           | C         | Scheme of Examination<br>Maximum Marks |            |            |
|--------------|-------------|-------------|------------------------------------------------|------------------|----------|-----------|-----------|----------------------------------------|------------|------------|
|              |             |             |                                                | L                | T        | P         |           | Int.                                   | Ext.       | Total      |
| 1            |             | BSC         | Mathematics-I                                  | 3                | 0        | 0         | 3         | 30                                     | 70         | 100        |
| 2            |             | HSMC        | Communicative English I                        | 3                | 0        | 0         | 3         | 30                                     | 70         | 100        |
| 3            |             | BSC         | Engineering Chemistry                          | 3                | 0        | 0         | 3         | 30                                     | 70         | 100        |
| 4            |             | ESC         | Basic Electrical & Electronics Engineering     | 3                | 0        | 0         | 3         | 30                                     | 70         | 100        |
| 5            |             | ESC         | Engineering Graphics                           | 1                | 0        | 3         | 2.5       | 30                                     | 70         | 100        |
| 6            |             | MC          | Professional Ethics & Human Values             | 2                | 0        | 0         | 0         | 30*                                    | -          | -          |
| 7            |             | HSMC        | Communicative English Laboratory-I             | 0                | 0        | 3         | 1.5       | 50                                     | 50         | 100        |
| 8            |             | BSC         | Engineering Chemistry Laboratory               | 0                | 0        | 3         | 1.5       | 50                                     | 50         | 100        |
| 9            |             | ESC         | Basic Electrical & Electronics Engineering Lab | 0                | 0        | 3         | 1.5       | 50                                     | 50         | 100        |
| <b>TOTAL</b> |             |             |                                                | <b>15</b>        | <b>0</b> | <b>12</b> | <b>19</b> | <b>300</b>                             | <b>500</b> | <b>800</b> |
| BSC = 7.5    |             | ESC=7       | HSMC=4.5                                       | MC=0             |          |           |           |                                        |            |            |

University Nominee  
(Dr. G.V.R. Prasada Raju)

Subject Expert  
(Dr. D. Rama Seshu)

Industry Expert  
(Sri.S.V.Vijaykumar)

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(Sri. B.P. Ranga Rao)

Internal Member  
(Sri. S.N.Rao)

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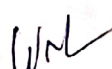
Chairman-BOS  
(Dr.D.Venkateswarlu)

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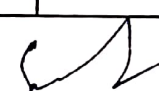
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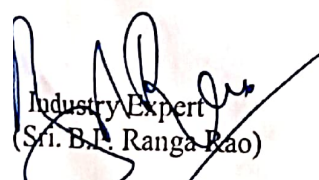
**DEPARTMENT OF CIVIL ENGINEERING**
**4 Years B.Tech. (Civil Engineering) Course Structure : GRBT-19**
**I YEAR II SEMESTER**

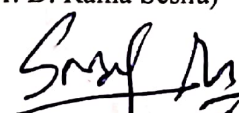
| S. No.       | Course Code | Course Type | Course Title                                        | Periods per week |          |           | C         | Scheme of Examination<br>Maximum Marks |            |            |
|--------------|-------------|-------------|-----------------------------------------------------|------------------|----------|-----------|-----------|----------------------------------------|------------|------------|
|              |             |             |                                                     | L                | T        | P         |           | Int.                                   | Ext.       | Total      |
| 1            |             | BSC         | Mathematics-II                                      | 3                | 0        | 0         | 3         | 30                                     | 70         | 100        |
| 2            |             | HSMC        | Communicative English-II                            | 3                | 0        | 0         | 3         | 30                                     | 70         | 100        |
| 3            |             | ESC         | Engineering Mechanics                               | 2                | 1        | 0         | 3         | 30                                     | 70         | 100        |
| 4            |             | ESC         | Problem Solving & Programming in C                  | 2                | 1        | 0         | 3         | 30                                     | 70         | 100        |
| 5            |             | BSC         | Engineering Physics and its Applications            | 3                | 0        | 0         | 3         | 30                                     | 70         | 100        |
| 6            |             | MC          | Environmental Studies                               | 2                | 0        | 0         | 0         | 30*                                    | -          | -          |
| 7            |             | HSMC        | Communicative English Laboratory -II                | 0                | 0        | 3         | 1.5       | 50                                     | 50         | 100        |
| 8            |             | ESC         | Basic Engineering Workshop                          | 0                | 0        | 3         | 1.5       | 50                                     | 50         | 100        |
| 9            |             | BSC         | Engineering Physics and its applications Laboratory | 0                | 0        | 3         | 1.5       | 50                                     | 50         | 100        |
| 10           |             | ESC         | Problem Solving & Programming Laboratory in C       | 0                | 0        | 3         | 1.5       | 50                                     | 50         | 100        |
| <b>TOTAL</b> |             |             |                                                     | <b>15</b>        | <b>2</b> | <b>12</b> | <b>21</b> | <b>350</b>                             | <b>550</b> | <b>900</b> |
| BSC=7.5      |             | ESC=9       | HSMC=4.5                                            | MC=0             |          |           |           |                                        |            |            |

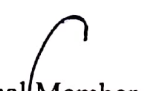
  
University Nominee  
(Dr. G.V.R. Prasada Raju)

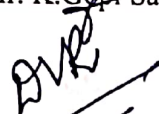
  
Subject Expert  
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**DEPARTMENT OF CIVIL ENGINEERING**
**4 Years B.Tech. (Civil Engineering) Course Structure : GRBT-19**
**II YEAR I SEMESTER**

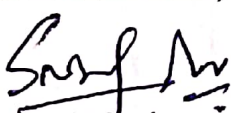
| S. No.                                   | Course Code | Course Type | Course Title                                   | Periods per week |          |          | C           | Scheme of Examination<br>Maximum Marks |            |            |
|------------------------------------------|-------------|-------------|------------------------------------------------|------------------|----------|----------|-------------|----------------------------------------|------------|------------|
|                                          |             |             |                                                | L                | T        | P        |             | Int.                                   | Ext.       | Total      |
| 1                                        |             | BSC         | Mathematics-III                                | 3                | 0        | 0        | 3           | 30                                     | 70         | 100        |
| 2                                        |             | ESC         | Strength of Materials                          | 2                | 1        | 0        | 3           | 30                                     | 70         | 100        |
| 3                                        |             | PCC         | Environmental Engineering                      | 2                | 0        | 0        | 2           | 30                                     | 70         | 100        |
| 4                                        |             | PCC         | Construction Materials, Equipment & Management | 3                | 0        | 0        | 3           | 30                                     | 70         | 100        |
| 5                                        |             | PCC         | Surveying & Geomatics                          | 3                | 0        | 0        | 3           | 30                                     | 70         | 100        |
| 6                                        |             | ESC         | Fluid Mechanics                                | 3                | 0        | 0        | 3           | 30                                     | 70         | 100        |
| 7                                        |             | MC          | Constitution of India                          | 2                | 0        | 0        | 0           | 30*                                    | —          | —          |
| 8                                        |             | ESC         | Building planning and Drawing Lab              | 0                | 0        | 3        | 1.5         | 50                                     | 50         | 100        |
| 9                                        |             | PCC         | Materials Testing Laboratory                   | 0                | 0        | 3        | 1.5         | 50                                     | 50         | 100        |
| 10                                       |             | PCC         | Surveying Field Work                           | 0                | 0        | 3        | 1.5         | 50                                     | 50         | 100        |
| <b>TOTAL</b>                             |             |             |                                                | <b>18</b>        | <b>1</b> | <b>9</b> | <b>21.5</b> | <b>330</b>                             | <b>570</b> | <b>900</b> |
| BSC = 3    ESC = 7.5    PCC = 11    MC=0 |             |             |                                                |                  |          |          |             |                                        |            |            |

  
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## DEPARTMENT OF CIVIL ENGINEERING

4 Years B.Tech. (Civil Engineering) Course Structure : GRBT-19

## II YEAR II SEMESTER

| S. No.                                                | Course Code | Course Type | Subject Title                                    | Periods per week |   |   | C    | Scheme of Examination Maximum Marks |      |       |
|-------------------------------------------------------|-------------|-------------|--------------------------------------------------|------------------|---|---|------|-------------------------------------|------|-------|
|                                                       |             |             |                                                  | L                | T | P |      | Int.                                | Ext. | Total |
| 1                                                     |             | BSC         | Numerical Methods and Probability & Statistics   | 3                | 0 | 0 | 3    | 30                                  | 70   | 100   |
| 2                                                     |             | OEC         | Open Elective -I                                 | 3                | 0 | 0 | 3    | 30                                  | 70   | 100   |
| 3                                                     |             | PCC         | Mechanics of materials                           | 3                | 0 | 0 | 3    | 30                                  | 70   | 100   |
| 4                                                     |             | PCC         | Hydraulics and Hydraulic Machinery               | 3                | 0 | 0 | 3    | 30                                  | 70   | 100   |
| 5                                                     |             | PCC         | Structural Analysis                              | 3                | 0 | 0 | 3    | 30                                  | 70   | 100   |
| 6                                                     |             | PEC         | Professional Elective - I                        | 3                | 0 | 0 | 3    | 30                                  | 70   | 100   |
| 7                                                     |             | PCC         | Fluid Mechanics & Hydraulic Machinery Laboratory | 0                | 0 | 3 | 1.5  | 50                                  | 50   | 100   |
| 8                                                     |             | PCC         | Environmental Engineering Laboratory             | 0                | 0 | 3 | 1.5  | 50                                  | 50   | 100   |
| 9                                                     |             | PR          | Community Service Oriented Project               | 0                | 0 | 1 | 0.5  | 100                                 | -    | 100   |
| TOTAL                                                 |             |             |                                                  | 18               | 0 | 7 | 21.5 | 380                                 | 520  | 900   |
| BSC = 3    PCC = 12    OEC = 3    PEC = 3    PR = 0.5 |             |             |                                                  |                  |   |   |      |                                     |      |       |

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**DEPARTMENT OF CIVIL ENGINEERING**
**4 Years B.Tech. (Civil Engineering) Course Structure : GRBT-19**
**III YEAR I SEMESTER**

| S. No.                                           | Course Code | Course Type | Course Title                             | Periods per week |          |          | C           | Scheme of Examination<br>Maximum Marks |            |            |
|--------------------------------------------------|-------------|-------------|------------------------------------------|------------------|----------|----------|-------------|----------------------------------------|------------|------------|
|                                                  |             |             |                                          | L                | T        | P        |             | Int.                                   | Ext.       | Total      |
| 1                                                |             | PCC         | Theory of Structures                     | 2                | 1        | 0        | 3           | 30                                     | 70         | 100        |
| 2                                                |             | PCC         | Design of Reinforced Concrete Structures | 2                | 1        | 0        | 3           | 30                                     | 70         | 100        |
| 3                                                |             | PCC         | Soil Mechanics                           | 2                | 1        | 0        | 3           | 30                                     | 70         | 100        |
| 4                                                |             | ESC         | Engineering Geology                      | 2                | 0        | 0        | 2           | 30                                     | 70         | 100        |
| 5                                                |             | PCC         | Engineering Hydrology                    | 3                | 0        | 0        | 3           | 30                                     | 70         | 100        |
| 6                                                |             | PEC         | Professional Elective -II                | 3                | 0        | 0        | 3           | 30                                     | 70         | 100        |
| 7                                                |             | MC          | Intellectual Property Rights and Patents | 2                | 0        | 0        | 0           | 30*                                    | ---        | ---        |
| 8                                                |             | PCC         | Soil Mechanics Laboratory                | 0                | 0        | 3        | 1.5         | 50                                     | 50         | 100        |
| 9                                                |             | ESC         | Engineering Geology Lab                  | 0                | 0        | 2        | 1           | 50                                     | 50         | 100        |
| 10                                               |             | PR          | Mini Project-1/Study Project/Internship  | 0                | 0        | 0        | 2           | 100                                    | -          | 100        |
| <b>TOTAL</b>                                     |             |             |                                          | <b>16</b>        | <b>3</b> | <b>5</b> | <b>21.5</b> | <b>380</b>                             | <b>520</b> | <b>900</b> |
| PEC = 3    PCC = 13.5    PR = 2    ESC=3    MC=0 |             |             |                                          |                  |          |          |             |                                        |            |            |

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**DEPARTMENT OF CIVIL ENGINEERING**
**4 Years B.Tech. (Civil Engineering) Course Structure : GRBT-19**
**III YEAR II SEMESTER**

| S. No.                            | Course Code | Course Type | Course Title                                                | Periods per week |          |          | C           | Scheme of Examination Maximum Marks |            |            |
|-----------------------------------|-------------|-------------|-------------------------------------------------------------|------------------|----------|----------|-------------|-------------------------------------|------------|------------|
|                                   |             |             |                                                             | L                | T        | P        |             | Int.                                | Ext.       | Total      |
| 1                                 |             | OEC         | Open Elective-II                                            | 3                | 0        | 0        | 3           | 30                                  | 70         | 100        |
| 2                                 |             | PCC         | Design of Steel Structures                                  | 2                | 1        | 0        | 3           | 30                                  | 70         | 100        |
| 3                                 |             | PCC         | Foundation Engineering                                      | 2                | 1        | 0        | 3           | 30                                  | 70         | 100        |
| 4                                 |             | PCC         | Transportation Engineering                                  | 3                | 0        | 0        | 3           | 30                                  | 70         | 100        |
| 5                                 |             | PCC         | Irrigation Engineering                                      | 3                | 0        | 0        | 3           | 30                                  | 70         | 100        |
| 6                                 |             | PCC         | Concrete Technology ✓                                       | 2                | 1        | 0        | 3           | 30                                  | 70         | 100        |
| 7                                 |             | HSMC        | Soft Skills                                                 | 0                | 0        | 3        | 1.5         | 50                                  | 50         | 100        |
| 8                                 |             | PCC         | Software applications in Civil Engineering                  | 0                | 0        | 3        | 1.5         | 50                                  | 50         | 100        |
| 9                                 |             | PCC         | Concrete Technology & Transportation Engineering Laboratory | 0                | 0        | 3        | 1.5         | 50                                  | 50         | 100        |
| <b>TOTAL</b>                      |             |             |                                                             | <b>15</b>        | <b>3</b> | <b>9</b> | <b>22.5</b> | <b>330</b>                          | <b>570</b> | <b>900</b> |
| HSMC = 1.5    PCC = 18    OEC = 3 |             |             |                                                             |                  |          |          |             |                                     |            |            |

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**DEPARTMENT OF CIVIL ENGINEERING**

4 Years B.Tech. (Civil Engineering) Course Structure : GRBT-19

**IV YEAR I SEMESTER**

| S. No.                                | Course Code | Course Type | Course Title                                   | Periods per week |   |   | C  | Scheme of Examination Maximum Marks |      |       |
|---------------------------------------|-------------|-------------|------------------------------------------------|------------------|---|---|----|-------------------------------------|------|-------|
|                                       |             |             |                                                | L                | T | P |    | Int.                                | Ext. | Total |
| 1                                     |             | OEC         | Open Elective-III                              | 3                | 0 | 0 | 3  | 30                                  | 70   | 100   |
| 2                                     |             | OEC         | Open Elective-IV                               | 3                | 0 | 0 | 3  | 30                                  | 70   | 100   |
| 3                                     |             | PCC         | Pre stressed Concrete                          | 2                | 1 | 0 | 3  | 30                                  | 70   | 100   |
| 4                                     |             | PEC         | Professional Elective-III                      | 3                | 0 | 0 | 3  | 30                                  | 70   | 100   |
| 5                                     |             | PEC         | Professional Elective-IV                       | 3                | 0 | 0 | 3  | 30                                  | 70   | 100   |
| 6                                     |             | MC          | Design Thinking & Product Innovation           | 2                | 0 | 0 | 0  | 30*                                 | -    | -     |
| 7                                     |             | PCC         | Infrastructure Design and Detailing Laboratory | 0                | 0 | 2 | 1  | 50                                  | 50   | 100   |
| 8                                     |             | PR          | Mini Project -2 / Internship                   | 0                | 0 | 0 | 2  | 100                                 | -    | 100   |
| TOTAL                                 |             |             |                                                | 16               | 1 | 2 | 18 | 300                                 | 400  | 700   |
| PEC = 6 MC = 0 PCC = 4 OEC = 6 PR = 2 |             |             |                                                |                  |   |   |    |                                     |      |       |

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**DEPARTMENT OF CIVIL ENGINEERING**

**4 Years B.Tech. (Civil Engineering) Course Structure : GRBT-19**

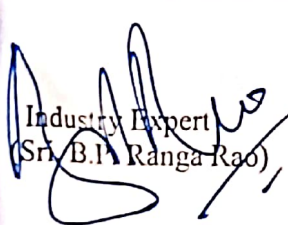
**IV YEAR II SEMESTER**

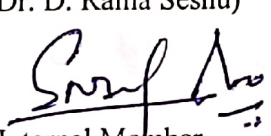
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|--------------|-------------|-------------|----------------------------------------|------------------|----------|-----------|-----------|-------------------------------------|------------|------------|
|              |             |             |                                        | L                | T        | P         |           | Int.                                | Ext.       | Total      |
| 1            |             | PCC         | Estimating, Specifications & Contracts | 3                | 0        | 0         | 3         | 30                                  | 70         | 100        |
| 2            |             | PEC         | Professional Elective-V                | 3                | 0        | 0         | 3         | 30                                  | 70         | 100        |
| 3            |             | PR          | Project                                | 0                | 0        | 18        | 9         | 80                                  | 120        | 200        |
| <b>TOTAL</b> |             |             |                                        | <b>6</b>         | <b>0</b> | <b>18</b> | <b>15</b> | <b>140</b>                          | <b>260</b> | <b>400</b> |
| PEC = 3      | PCC = 3     | PR = 9      |                                        |                  |          |           |           |                                     |            |            |

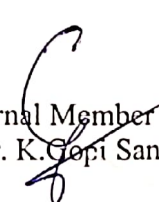
  
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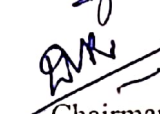
  
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