

**GODAVARI INSTITUTE OF ENGINEERING AND TECHNOLOGY (A) NH-16, CHAITANYA  
KNOWLEDGE CITY, RAJAHMUNDY DEPARTMENT OF CIVIL ENGINEERING  
GRMT20 COURSE STRUCTURE OF M.TECH STRUCTURAL ENGINEERING**

**I Year - I SEMESTER**

| S.No | Course code                 | Course Name  | Category | L | T  | P  | C         | Marks      |
|------|-----------------------------|--|----------|---|----|----|-----------|------------|
| 1    | 20211101                    | Theory of Elasticity   | Core     | 3 | 0  | -- | 3         | 100        |
| 2    | 20211102                    | Structural Dynamics  | Core     | 3 | 0  | -- | 3         | 100        |
| 3    | 20211163                    | Elective I   | Elective | 3 | 0  | -- | 3         | 100        |
|      | 20211163A                   | a) Advanced Matrix Analysis of Structures                    |          |   |    |    |           |            |
|      | 20211163B                   | b) Analytical & Numerical Methods for Structural Engineering |          |   |    |    |           |            |
|      | 20211163C                   | c) Design of RC Foundations                                  |          |   |    |    |           |            |
| 4    | 20211164                    | Program Elective II  | Elective | 3 | 0  | -- | 3         | 100        |
|      | 20211164A                   | a) Bridge Engineering  |          |   |    |    |           |            |
|      | 20211164B                   | b) Repair and Rehabilitation of Structures                   |          |   |    |    |           |            |
|      | 20211164C                   | c) Advanced Reinforced Concrete Design                       |          |   |    |    |           |            |
| 5    | 202111188                   | Research Methodology   |          | 2 | 0  | 0  | 2         | 100        |
| 6    | 202111111                   | Advanced Concrete Technology Laboratory                      | Lab      | - | -- | 4  | 2         | 100        |
| 7    | 202111112                   | Advanced Structural Engineering Laboratory                   | Lab      | - | -- | 4  | 2         | 100        |
| 8    | 202111191                   | Audit Course –1  | Audit    | 2 | 0  | 0  | 0         |            |
|      | <b>Total Credits /Marks</b> |  |          |   |    |    | <b>18</b> | <b>700</b> |

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**I Year – II SEMESTER**

| S.No.                        |           | Course Name                                      | Category | L  | T  | P  | C         | Marks      |
|------------------------------|-----------|--|----------|----|----|----|-----------|------------|
| 1                            | 20211201  | Finite Element Methods in Structural Engineering | Core     | 3  | 0  | -- | 3         | 100        |
| 2                            | 20211202  | Theory of Plates and Shells                      | Core     | 3  | 0  | -- | 3         | 100        |
| 3                            | 20211263  | Elective III                                     | Elective | 3  | 0  | -- | 3         | 100        |
|                              | 20211263A | a) Stability of Structures                       |          |    |    |    |           |            |
|                              | 20211263B | b) Advanced Steel Design                         |          |    |    |    |           |            |
|                              | 20211263C | c) Analysis of Offshore Structures               |          |    |    |    |           |            |
| 4                            | 20211264  | Elective IV                                      | Elective | 3  | 0  | -- | 3         | 100        |
|                              | 20211264A | a) Earthquake Resistant Design of Buildings      |          |    |    |    |           |            |
|                              | 20211264B | b) Precast and Prefabricated Structures          |          |    |    |    |           |            |
|                              | 20211264C | c) Earth Retaining Structures                    |          |    |    |    |           |            |
| 5                            | 202111211 | Computer Aided Design Laboratory                 |          | -- | -- | 4  | 2         | 100        |
| 6                            | 202111212 | Structural Design laboratory                     | Lab      | -- | -- | 4  | 2         | 100        |
| 7                            | 202111221 | Mini Project With Seminar                        |          | 0  | 0  | 4  | 2         | 100        |
| 8                            | 202111291 | Audit Course -2                                  | Audit    | 2  | 0  | 0  | 0         |            |
| <b>Total Credits / Marks</b> |           |  |          |    |    |    | <b>18</b> | <b>700</b> |

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**II Year – I SEMESTER**

| S.No. | Course code | Course Name   | Category | L  | T  | P  | C  | Marks         |
|-------|-------------|---|----------|----|----|----|----|---------------|
| 1     | 20211361    | Elective 5: Program Elective /MOOCS   | Elective | 3  | 0  | -- | 3  | 100           |
|       | 20211361A   | a) Design of Prestressed Concrete structures  |          |    |    |    |    |               |
|       | 20211361B   | b) Structural Health Monitoring   |          |    |    |    |    |               |
|       | 20211361C   | c) Industrial Structures  |          |    |    |    |    |               |
| 2     | 20211362    | <b>Open Elective</b>  | Elective | 3  | 0  | -- | 3  | 100           |
|       | 20211362A   | 1. MOOCs-2 (NPTEL/SWAYAM)- Any 12 Week Course on Engineering/ Management/ Mathematics offered by other than parent department |          |    |    |    |    |               |
|       | 20211362B   | 2. Course offered by other departments in the college   |          |    |    |    |    |               |
| 3     | 20211341    | <b>Dissertation Phase-I / Industrial Project</b><br>(To be continued and Evaluated next Semester)*                            |          | -- | -- | 20 | 10 |               |
|       |             | <b>Total Credits / Marks</b>  |          |    |    |    |    | <b>16 200</b> |

\* Evaluated and displayed in 4<sup>th</sup> Semester marks list

\*\* Students Going for Industrial Project / Thesis will complete these courses through MOOCS

**II Year-II Semester**

| Sl No. | Course code | Course Name   | Category | L | T | P  | C  | Marks         |
|--------|-------------|---|----------|---|---|----|----|---------------|
| 1      | 20211441    | <b>Project/Dissertation Phase II</b><br>(Continued from III Semester) |          | 0 | 0 | 32 | 16 | 100           |
|        |             | <b>Total Credits / Marks</b>  |          |   |   |    |    | <b>16 100</b> |

**Audit course 1 & 2**

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technical Knowledge
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by Yoga
8. Personality Development through Life Enlightenment Skills.