**ANURAG GROUP OF INSTITUTIONS**

(Formerly CVSR COLLEGE OF ENGINEERING)

Venkatapur (V), Ghatkesar (M), R. R. Dist.

**(Autonomous)**

**DEPARTMENT OF MECHANICAL ENGINEERING**

Name of the Course: **MECHANICS OF SOLIDS**

Name of the course coordinator: **Dr. P. RAVIKANTH RAJU**

**Course Outcomes:**

After completion of this course, the students will be able to:

1. Model and analyze the behaviour of structural and machine components subject to various loadings and support conditions based on principles of equilibrium and material constitutional relationships.
2. Understand and apply the concept of stress and strain to analyse and design structural members and machine parts under axial loads, shear load, bending moment and torsional moment.
3. Solve practical problems through evaluating the relationship between stress and strain.
4. Analyse of composite bars and shafts deformation of loaded flexural members.
5. Determine stresses in both thin and thick cylinders.

**Articulation matrix of CO’s with PO’s and PSO’s**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Program Outcome’s** | | | | | | | | | | | | **PSO’s** | | |
| **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO 10** | **PO 11** | **PO12** | **PSO1** | **PSO2** | **PSO3** |
| **CO1** | **3** | **3** | **-** | **-** | **-** | **-** | **-** | **-** | **2** | **-** | **2** | **-** | **2** | **2** | **3** |
| **CO2** | **3** | **3** | **-** | **-** | **-** | **-** | **-** | **-** | **2** | **-** | **2** | **-** | **2** | **2** | **1** |
| **CO3** | **3** | **3** | **2** | **2** | **-** | **-** | **-** | **-** | **2** | **-** | **2** | **-** | **-** | **2** | **3** |
| **CO4** | **3** | **3** | **2** | **2** | **-** | **-** | **-** | **-** | **2** | **-** | **2** | **-** | **2** | **2** | **2** |
| **CO5** | **3** | **3** | **-** | **-** | **-** | **-** | **-** | **-** | **2** | **-** | **2** | **-** | **-** | **2** | **1** |
| **AVG** | **3** | **3** | **2** | **2** | **-** | **-** | **-** | **-** | **2** | **-** | **2** | **-** | **2** | **2** | **2** |

***Note*: 1 - Slight**

**2 - Moderate**

**3 - Substantial**

**Signature of the Course Coordinator**