#### CIVIL ENGINEERING DEPARTMENT

#### Departmental Vision & Mission

#### Vision:

The Department of Civil Engineering strives to graduate highly qualified engineers, maintain nationally recognized research and provide quality professional and community service to the nation.

#### **Mission:**

The Civil Engineering Program at the JIS College of Engineering through its faculty, staff, students, and constituents work together to acquire, generate, share, and use knowledge in the different fields of Civil Engineering. The Programme accomplishes its mission through undergraduate programme and contributes to the quality of these programmes by followings step:

- 1. To educate people with the necessary skills from fundamental to state of the art.
- 2. To impart knowledge to students.
- 3. Fostering lifelong learning.
- 4. Integrating learning and discovery.
- 5. Developing and sharing technical expertise.
- 6. Empowering students to be tomorrow's leaders by entrepreneurship and economic development to benefit nationally and globally.

#### CIVIL ENGINEERING DEPARTMENT

### **Program Educational Objectives (PEOs)**

The Program Educational Objectives (PEO) of the Civil Engineering Program will demonstrate the essential components of a successful engineer for the best career based professional accomplishments after graduation. Therefore the objectives are following:

- Graduates in Civil Engineering will be competent to pursue higher education in technical or management field.
- 2. Graduates in Civil Engineering will acquire skills required for successful entrepreneurs.
- 3. Graduates in Civil Engineering will engage themselves in lifelong learning and research.
- 4. Graduates in Civil Engineering would know and practice professional ethics throughout their life.
- 5. Inculcating in students advanced civil engineering technologies to deal with practical aspects of multi-disciplinary work environments.

# CIVIL ENGINEERING DEPARTMENT PROGRAM OUTCOMES (PO)

Civil Engineering Graduates will be able to achieve the following outcomes:

| PO 1 | Engineering knowledge: Apply the knowledge of mathematics, science and          |
|------|---|
|      | the fundamentals of civil engineering to the solution of real life              |
|      | engineering problems.   |
| PO 2 | Problem analysis: Identify, formulate and analyze complicated engineering       |
|      | problems using mathematics & engineering sciences and review concerned          |
|      |   |
|      | literatures to reach substantiated conclusions.                                 |
| PO 3 | Design/development of solutions: Design an optimized solution for complex       |
|      | civil engineering problems and formulate system components or processes for     |
|      | the public health and safety.   |
| PO 4 | Conduct investigations of complex problems: Use research-based knowledge        |
|      | for designing critical experiments, methods of analysis and interpretation of   |
|      | data to synthesize a valid solution of civil engineering problems.              |
|      | ·   |
| PO 5 | Modern tool usage: Learn modern CAD CAM software for modeling and               |
|      | prediction of detailed engineering phenomena and assess the appropriate         |
|      | results.  |
| PO 6 | The engineer and society: Apply reasoning induced by the contextual             |
|      | knowledge to assess societal, health, safety and cultural issues while          |
|      | maintaining consequent responsibilities of a Civil Engineering professional.    |
| PO 7 | Environment and sustainability: Understand the impact of civil engineering      |
|      | activities in environmental contexts and demonstrate the                        |
|      | knowledge for sustainable development of the society.                           |
| PO 8 | <b>Ethics</b> : Learn and commit to professional ethics and responsibilities by |
|      |   |



# JIS COLLEGE OF ENGINEERING AN AUTONOMOUS INSTITUTION

|       | LYAN  |
|-------|---|
|       | practicing consequent norms in various civil engineering practice                     |
| PO 9  | Individual and team work: Function effectively as individual, as a member or          |
|       | a leader in diverse teams and multidisciplinary settings.                             |
| PO 10 | Communication: Communicate effectively about civil engineering activities             |
|       | with the engineering community and with society at large, such as, being able         |
|       | to comprehend and design effective documentation, make effective                      |
|       | presentations and give or receive clear instructions.                                 |
|       | 7   |
| PO 11 | Project management and finance: Demonstrate knowledge and                             |
|       | understanding of core engineering and management principles to manage                 |
|       | projects in multidisciplinary environments as an individual, a member or              |
|       | leader of a team.   |
| PO 12 | <b>Life-long learning</b> : Recognize the need for life-long learning in the broadest |
|       | context of technological change and have the ability to engage independently.         |

## PEOGRAM SPECIFIC OUTCOMES (PSOs)

| PSO 1 | Enhancing the employability skills by making the students capable of qualifying                |
|-------|--|
|       | National level competitive examinations.   |
| PSO 2 | Competency in professional and Industrial areas.   |
| PSO 3 | Follow human values and ethics with team spirit in every civil engineering project undertaken. |