

## **Workshop on Bridge Design And Fabrication**

### **Day-1**

#### **Session 1- Concept Session:**

- ☐ Detail introduction on Bridge Engineering
- ☐ Significance and Importance in modern days
- ☐ Understanding of different load system
- ☐ Analysis of lateral forces considering Indian Standard Codes
- ☐ Detail discussion on the methods to reduce deflection
- ☐ Brief Introduction to Base Isolation concept
- ☐ Introduction to Damping System
- ☐ Discussion on different foundation system and its application
- ☐ Detail case studies

#### **Launch Break**

#### **Session 2- Practical Session:**

- ☐ Introduction to major Industry grade Structural Analysis software SAP 2000
- ☐ Analysis of Steel Beam using IS CODE
- ☐ Analysis of Concrete Beam using IS CODE
- ☐ Steel and Concrete frame analysis
- ☐ Analysis of Truss
- ☐ P Delta analysis
- ☐ Analysis of Truss Bridge Considering Loading

### **Day-2**

#### **Session 3- Practical Session:**

- ☐ Fabrication of the Truss Bridge using Balsa Wood

#### **Launch Break**

#### **Session 4- Practical Session:**

- ☐ Load testing to check the performance of Design

Please note: 10% of the students will be awarded with Merit/Distinction certification based out of their overall performance.