FACULTY OF ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

GUEST LECTURE - REPORT

DATE: 26th JULY 2019

TIME: 11:00am to 1:00 pm

VENUE: Seminar hall, Block 2, Christ (Deemed to be University)

RESOURCE PERSON: Mr A C Shiva Kumar, Retd, Assistant Executive Engineer

NAME OF THE COMPANY: Karnataka Public Works Department, Bangalore

EVENT COORDINATOR: Prof Laxmi

TARGET AUDIENCE: B. TECH Final year & M.TECH Students

Objective:

The enhancement of understanding of practical concepts of Bridge design and construction associated with the curriculum and to know the challenges faced during the construction of bridges

About the Lecture:

The lecture on Bridges and Culverts was delivered by Mr A C Shiva Kumar, retired executive engineer of Karnataka Public Works Department. His presentation covered the concepts related to the design and construction of bridges and culverts. He also discussed the various challenges that could be faced during and after the construction.

The lecture began with the discussion of the history and evolution of bridges, followed by the classification of bridges.

The discussion of Indian Standard Codes required for the practice of Bridge Engineering was covered in detail. Emphasis was laid on the adherence to the codal provisions. The design of bridge was covered in two parts – the design of substructure which includes soil investigation, design of foundation, design of piers, hydrological studies, and design of pier caps and bearings; the design of superstructure which includes the design of deck slab, beams, wearing surface, expansion joints, and certain functional elements like railings, lightings, footpaths etc.

The students were able to relate to the classroom concepts while extracting knowledge from the experience of the resource person. Particular details and challenges that can rise in construction were discussed in detail including aspects of climatic conditions, risk factors, and disaster mitigation.

Learning Outcomes

1. Knowledge of application of codal provisions in practical design and construction of bridges and culverts
2. Recognition of prelimnary essentials required prior to the design and construction of bridges and culverts
3. Identification and adoption of best techniques for construction in different environments.