



# POORNIMA UNIVERSITY

## **NATIONAL LEVEL SEMINAR ON "RESEARCH ADVANCEMENTS AND PROSPECTS IN CIVIL ENGINEERING"**

Date: April 20, 2018

### **INTRODUCTION**

A Seminar on "Research Advancements and Prospects in Civil Engineering" was organized on 20<sup>th</sup> April 2018 at Manipal University, Jaipur. As it is expected to have good knowledge in the discipline of Civil Engineering and to study its importance in the various fields of civil engineering and also the various advancements that has been taken place in the field of civil engineering.

### **OBJECTIVE'S**

This workshop was organized with a purpose of familiarizing the modern aspects and advancements in the field of civil engineering which includes the case study of world highest railway bridge in India, disaster management and river management in India, etc.

Following are some key objectives of the course:

- To know the various aspects of Civil Engineering.
- To know about the construction of the world's highest railway bridge.
- To identify the basic fundamentals of earthquake engineering and disaster management.

### **KEY NOTE SPEAKERS**

1. Dr. G. Madhavi Lata, Professor, IISc Bangalore
2. Dr. B.R. Chahar, Professor, IITDelhi
3. Dr. K. N. Jha, Associate Professor, IIT Delhi
4. Dr. Ashish Verma, Associate Professor, IISc Bangalore
5. Dr. B. K. Maheshwari, Professor, IIT Roorkee

### **COURSE CONTENT**

The course content covered by the renowned speakers included:

- Building the world's highest railway bridge in INDIA □ River management and hydraulic structure.

- Advancements in formwork technologies for concrete structure
- Shifting the focus from supply to demand-sustainable development of transportation
- Disaster management in India and overview of earthquake engineering

### **DETAILED DISCUSSION ON SHORT TERM COURSE**

The workshop began with the inaugural ceremony by lamp lightening towards goddess Saraswati by the President Dr. G. K. Prabhu along with Organizers Dr. R.C. Gaur, Dr. Arvind Kumar Jha and coordinators. The event started with the introduction of the need of conduction of this kind of seminar especially in the field of Civil Engineering discipline. All the present speakers were honored and presented flower bouquet and mementos. The work of all the eminent speakers and their contribution to their respective field and thereby to the society were appreciated. After its completion High Tea break was taken for being familiarizing with each other.

The very first session was taken by Dr. G. Madhavi Latha, Professor IISc. Bangalore. She drove the session so excitingly with his fantastic way of speaking, she took over the various geological aspects and geotechnical investigation and various sampling techniques that was done when the construction of World highest Railway Bridge on Chenab River was being done at Reasi district of Jammu & Kashmir.

Dr. B.R. Chahar, IIT Delhi took the session towards the importance of Canal alignment and its design in very tough conditions. He discussed the current ground improvement techniques, failure mechanism and mechanically stabilizing methods for improving soil behavior. He suggest various improvement towards the slope failure in canal design, he discussed some PhD thesis which has been done under his guidance related to advancement in canal design.

Dr. K.N. Jha Associate Professor, IIT Delhi explained the function of formwork in various construction projects. He described the failure occurs in structures due to poor management of formwork. Various examples have been shown by him in Indian construction which was failed due to poor formwork and poor shuttering.

Dr. Ashish Verma, Associate Professor, IISc, Bangalore explained the problems related to the traffic congestion and suggested the way that how we can give more emphasis on public transport. He also tells us about the Country Netherland where large number of people use cycles and mass transportation to save the traffic congestion and also the environment.

Dr. B. K. Maheshwari, Professor, IIT Roorkee explained about the Disaster management in India and overview of earthquake engineering. He tells us about the various earthquake zones in India and also shows that which zone is the most severe for the earthquake. He explained the various types of the failure which was takes place at Bhuj earthquake in 2002.

### **KEY OUTCOMES OF WORKSHOP**

- Overall Understanding of the various civil engineering aspects in the field.

- Conceptual study of the river management work and the various sloping conditions.
- Identifying the stabilization methods of the soil and its bearing capacity.
- Knowing the aspects of Disaster management in India and overview of the various seismic zones.



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