

# Structural Steel Design (Limit State Method)

June 21-26, 2010

Coordinators

Dr Urmil V Dave, Dr Paresh V Patel &  
Shri Manas M Ghosh

Organized by



**Institute for Steel  
Development & Growth  
(INS DAG)  
Kolkatta**

and



**Department of Civil Engineering  
Institute of Technology  
Nirma University  
Ahmedabad, Gujarat, India.**

## Certificate from Sponsoring Authority

We understand that the course content covers all important chapters of structural steel design and has been prepared based on the concepts taught at BE/B. Tech level in the advanced countries. The faculty member(s) of our Institute/College is/are being nominated for the training programme. We will incorporate the course content in our course curriculum for BE/B. Tech level after the nominated faculty member(s) are trained.

Place:

Date :

Signature of  
Sponsoring Authority  
With official seal

Please send application form, duly filled to:

**Dr U V Dave, Dr P V Patel**  
Coordinators,  
Department of Civil Engineering,  
Institute of Technology  
**Nirma University**  
Ahmedabad- 382481, Gujarat, INDIA.  
Phone: 02717-241911-15  
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Mobile: 09427022244/09427791740  
E Mail: urmil.dave@nirmauni.ac.in  
paresh.patel@nirmauni.ac.in  
Website: www.nirmauni.ac.in

With a copy to,

**Shri M. M. Ghosh**  
Sr. Manager (C&S)  
Institute for Steel Development & Growth (INS DAG)  
First Floor, Ispat Niketan, 52/1 A, Ballygunge  
Circular Road, Kolkata - 700019, INDIA.  
Phone: 033-24614045/47/4409  
Fax: 033-24614048  
Mobile: 09748482618  
Email: insdag@rediffmail.com  
mmg211@gmail.com  
website: www.steel-insdag.org

## Faculty

The programme is planned to be an intensive and interactive. The course will be spread over 6-days with 29 theory lectures and 5 tutorials. Highly knowledgeable, experienced professors and experts in the field will deliver the lectures. A visit to site, in order to observe real life Steel Structure is included.

## Registration Charges

**There is NO participation fee.** The participation is **totally free of cost** and is open to all teaching faculty of civil/structural engineering/ applied mechanics departments having interest in teaching of structural steel design or similar course. The participants (who have not attended earlier workshops of INSDAG) must be nominated by the Head of their Institution/Dean/Head of the Department. The details of the candidate should be furnished in the attached form. Normally one/two participants from each college will be admitted to the workshop. Since the participation is limited to about 30, candidates will be admitted on first come first serve basis.

## Course Material

The participants will be given:

- One CD with Power Point Slides for all the lectures and all lecture notes in MS Word format which will be useful for teaching the students later on
- A certificate for participation in the programme

## Deadline

The application forms duly completed and forwarded by Head of the Institution/Dean/ HOD must reach the coordinators with a copy to coordinator-INS DAG by May 08, 2010. It may be noted that the nominated faculty must not have attended the earlier workshops on the same topic organized by INSDAG during 2006-2009.

## Traveling Allowance and Fooding & Lodging

The nominated participants will avail the following:

- Reimbursement of to and from 3A class train fare or equivalent on production of proof of travel and applicable conveyance charges
- Free of cost fooding and lodging in a guest house/ hostel for attending the course

## Preamble and Objectives

During the past one and a half decade, a number of new concept/knowledge has been developed in structural steel design. Limit State Design, Composite Construction, Earthquake Resistant Design are some of them. Simultaneously connected codes are being revised in line with the new concepts. Revision of Indian codes (BIS, IRC etc), in line with American, British and Euro codes etc, is already in progress in India.

In order to align teaching standard on structural steel design in Indian Universities in line with that being taught in the advanced countries, at the insistence of **Ministry of Steel and Institute for Steel Development & Growth (INS DAG)** and after extensive literature review, an expert team under the leadership of Dr. R. Narayanan (having many decades of teaching experience in the British, US and Indian universities) has prepared a Teaching Resource Material on Structural Steel Design for the Faculty of Civil/Structural Engineering Departments. This module is highly acceptable.

The teaching material comprises 45 chapters (full one semester course). Some of the important topics covered are: *Limit States Design; Tension Members; Column Buckling, Plate Buckling and Local Buckling; Laterally Restrained Beams and Unrestrained Beams; Axially Compressed Members and Beam Columns; Plate Girders; Bending and Torsion; Cold Formed Sections; Composite Beams, Composite Floors and Composite Columns; Trusses; Connections Design: Welded and Bolted Connections; Plastic Analysis; Portal Frames; Multi-storey Buildings; Semi Rigid Analysis and Design; Fabrication and Erection of Structural Steel Work; Steel Bridges; Case Studies; Earthquake Resistant Design.*

Relevant chapters were modified recently incorporating the modifications related to IS 800: 2007 released in February 2008.

More than 410 teachers drawn from different engineering colleges all over the country had been trained by the expert team who drafted the teaching material in 6-day Workshops. It is planned to train another about 30 young faculty of civil/structural engineering in this 6-days Short Term Training

Program on **Structural Steel Design** with the objective to equip them with state-of-the-art knowledge in structural steel design so as to enable them to impart such knowledge in turn to the students at undergraduate level and also act as faculty for training the teachers in similar workshops to be organized in future.

## Nirma University

Nirma University was established in year 2003 as a statutory university under Gujarat State Act at initiative of Nirma Education & Research Foundation (NERF). In 1994, founder of Nirma Industries and an internationally famous entrepreneur Dr. Karsanbhai K. Patel crystallized his long cherished dream of providing world class facilities for professional education in Gujarat. He established NERF which in turn established, a 110 acre campus, six institutions including institute of technology within a span of fifteen years.

## Institute of Technology

Institute of Technology offers eight B. Tech. programmes and eight M. Tech. Programmes in various branches of Engineering. About 25 students have registered for Ph.D. in different disciplines. It is located in peaceful and sylvan surroundings, about 15 km from Ahmedabad on Sarkhej Gandhinagar highway. The academic ambience provides full scope for development. The presence of the institute can also be felt by its alumni spread in national and multinational organizations as well as leading universities throughout the world.

## Department of Civil Engineering

The department offers Under Graduate programme in Civil Engineering, post graduate programme in Computer Aided Structural Analysis & Design and Ph.D. programme. The department consists of divisions such as Transportation Engineering, Cement & Concrete, Geotechnical Engineering, Environmental Engineering, Material Testing, Structural Engineering, Surveying and Construction Technology. All divisions offer consultancy and testing services.

## NOMINATION FORM

Short Term Training Programme

on

## STRUCTURAL STEEL DESIGN

June 21-26, 2010

1.Name: .....

2.Age: ..... Years (Male / Female)

3.Qualification: .....

4.Designation: .....

5.Institution: .....

6.Address: .....

.....

Phone:.....Fax:.....

Email: .....

7.Experience

Teaching:.....

Industrial:.....

8.Subjects Taught:.....

9.Have attended INSDAG courses earlier?

If yes give details.....

10.Hostel Accommodation required: Yes / No

Place:

Date: Signature of the Applicant