

**Workshop on
EARTHQUAKE RESISTANT PRACTICES FOR
UNDERGRADUATE STUDENTS OF ARCHITECTURE**

July 07 - 12, 2013, IIT Kanpur

National Information Centre of Earthquake Engineering (NICEE) at IIT Kanpur is committed to furthering earthquake safety in the built environment through empowering stakeholders in the building delivery process by information sharing and dissemination of the state of the art in earthquake engineering. NICEE has also actively engaged in awareness, sensitization and training programmes for faculty in architecture and civil engineering disciplines in colleges all over India through the NPEEE program that was in operation from 2003 till 2007. The National Advisory Committee of NICEE unanimously felt need of targeting the architecture professionals of tomorrow by offering training modules to the students of architecture in colleges all over India. The objective of this workshop was primarily aimed to equip the participants with the necessary expertise to arrive at architectural designs that are inherently adequate in resisting earthquake loads at a conceptual level.

To meet this objective, a pilot Workshop for Undergraduate students of Architecture in Earthquake Resistant Design Practices was first offered in 2008. The workshop was a grand success and it was decided to make it an annual event. The 6th National Workshop was held in IIT Kanpur during July 07-12, 2013, in which 57 undergraduate students who had completed six semesters of studies in their respective architecture programmes, from 14 institutes representing 10 cities from all over India participated in the 6-day workshop. The participants were selected from around 100 applications received.

Workshop 2013

The general objective of the workshop was to sensitize the students to earthquake safety issues and in capacity building in the basics of earthquake resistant design at a conceptual level. It was expected that lectures and hands-on studio sessions in tackling a design assignment will help students in internalizing earthquake resistant practices as an integral part of their design decision making. The resource faculty for this workshop was from architecture and structural engineering disciplines in an attempt to recreate as closely as possible real life architectural practice. The selected participants were each sent a NICEE publication titled “Architectural Teaching Resource Material on Earthquake Design Concepts” authored by Murty and Charleson. The participants were advised to go through the book before coming for the workshop.

The following faculty members, Prof. Keya Mitra, Bengal Engineering & Science University, Shibpur, Howrah; Prof. Vasudha Gokhale, Dr. B.N. College of Architecture for Women, Pune; Prof. Alpana Dongre, VNIT Nagpur; Prof. Meenu Varshney, MNIT Jaipur, Jaipur; Prof. Atanu Dutta, Jorhat Engineering College, Jorhat; Prof OR Jaiswal,

VNIT Nagpur, Nagpur and Mr. Hari Kumar of GeoHazards Society, New Delhi were the resource persons of the workshop 2013.

Design Problem

The design brief was to Design a housing project in a hypothetical 135m x 90m site in Guwahati, located in Seismic Zone V. The workshop participants were divided into twenty seven 2 member groups and one three member group where each member was from a different institute. They were asked to develop a design proposal which should be rational in functional, structural and aesthetic terms. While the participants were encouraged to adopt innovative design approaches, the objective of this design exercise was to evaluate their understanding of earthquake resistant architecture and application of the same in a design project.

Evaluation of Design

Six designs that incorporated earthquake resistant features without compromising the host of other requirements such as functionality, climate, etc. were shortlisted during the initial round by a Jury Board. The Jury Board consisted of following members:

Prof. Mahesh Tandon, CMD, Tandon Consultants & Private Limited, New Delhi
Prof. Durgesh C. Rai, Indian Institute of Technology Kanpur, Kanpur
Ar. Narendranath Mitra, Practicing Architect, Kolkata
Prof. Rajeev Kacker, College of Architecture, Lucknow

The jury looked particularly for a clear understanding of structural system that would be effective in withstanding earthquake loads. The award winning designs are appended below.

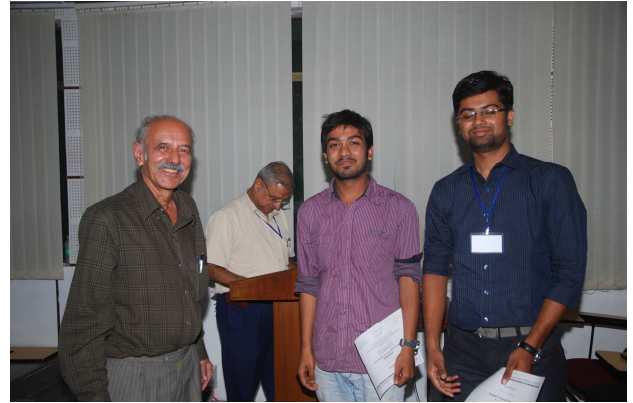
First Position

Anam Khaliq, Babu Banarasi Das National Institute of Technology & Management, Lucknow
Prathmesh Mahadev Kubal, Visvesaraya National Institute of Technology Nagpur, Nagpur



2nd

Varun Goyal, Maulana Azad
National Institute of Technology
Bhopal, Bhopal
Parikshit Prakash Mudholkar,
MIET, Gondia



Unmesh Shrikant Kelkar, Pillai
College of Architecture, New
Panvel
Krishan Upadhyay, Zakir Hussain
College of Engineering &
Technology, Aligarh

3rd

Lakshmi Priya, Smt. Manoramabai
Mundle College of Architecture,
Nagpur
Himanshu Verma, School of Planning
and Architecture, Bhopal



The workshop was sponsored by Computers and Structures Inc (CSI), and Atomic Energy Regulatory Board, Mumbai
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