



National Information Centre of Earthquake Engineering

Indian Institute of Technology Kanpur

Annual Report

April 2007 – March 2008

From the Coordinator

NICEE has completed yet another eventful year. It organized an international meet on *Confined Masonry*, attended by eminent experts from across the world. It also initiated a major program of engaging architecture students in the issue of earthquake safety. Our quarterly periodical *Earthquake Engineering Practice* became rather popular. As NICEE's outreach activities continue to reach greater heights, it also needs a commensurate increase in the level of contributions and support from its well wishers. The *Annual Report 2007-2008* is an opportunity for us not only to share information about activities over the past year, it is also an occasion to seek opinions and suggestions from all of you. Please do write to us.

Major NICEE Initiatives in 2007-2008

Confined Masonry Workshop

The earthquake problem needs to be attacked from different directions and one important means to achieve seismic safety is to propagate building typologies that are inherently better against earthquakes. NICEE took a major step towards this agenda by hosting at Kanpur an *International Strategy Meet on Global Dissemination of Confined Masonry Construction* in January 2008. A time-bound action-oriented agenda was developed in the meeting. Participants were drawn from Canada, USA, Mexico, Peru, Switzerland, Indonesia, China, and India. The workshop was supported by Earthquake Engineering Research Institute (EERI), World Seismic Safety Initiative (WSSI), All India Council for Technical Education, and Poonam and Prabhu Goel Foundation at IITK. The meet was preceded with publication of the monograph *Earthquake-Resistant Confined Masonry Construction* authored by Svetlana Brzev and published by NICEE in December 2007. The monograph has been very well received: with first print running out by March 2008.

Outreach to the Architecture Community

NICEE undertook several activities to sensitize the architectural community on earthquake safety:

- In December 2007, NICEE participated in the Golden Jubilee Convention of the National Association of Students of Architecture (NASA) at Bhopal by setting up a booth. About 1000 copies of Earthquake Tips were distributed free-of-charge to the future architects. A quiz was conducted with cash awards based on the Tips. The winners were: Dinesh P. Thakur (LS Raheja School of Architecture, Mumbai), Ankit Garg (Appejay School of Architecture & Planning, Greater Noida), Jiss Aleya Job (SRM College, Chennai) and Abhishek Kumar (NIT Patna).
- A stall was set up and a student quiz based on Earthquake Tips conducted in the Conference of the South Asian Association for Regional Cooperation of Architects (SAARCH) 2008 in New Delhi.
- A specially created brochure on publications meant for architects was mailed to about 10,000 architects.

Recognition from NICEE

The National Advisory Committee of NICEE in its meeting held on April 23, 2008 decided to formally recognize the following individuals for their extraordinary contributions to NICEE:

- **Dr Prabhu Goel** and **Mrs Poonam Goel** of Fremont, California (USA): for extending considerable financial support to NICEE through the *Poonam and Prabhu Goel Foundation* at IIT Kanpur.
- **Ms Shubhada Gadkar** of Mumbai: for her dedicated work towards Marathi translation of the IITK-BMTPC Earthquake Tips.
- **Mr Atop Lego** of Itanagar (Arunachal Pradesh): for spreading the NICEE literature and seismic awareness in one of the remote but highly seismic regions of India, and for his enthusiasm to connect local engineers with NICEE.



Confined Masonry Workshop at IIT Kanpur, January 2008



Winners of the NICEE Quiz at NASA, Bhopal, December, 2007

Aggressive Dissemination of Literature

About 50,000 copies of monographs/CDs have been distributed by NICEE till date, with about 10,000 copies distributed during 2007-08. If the copies of the periodical are added, the number of copies of different items distributed during 2007-08 stands at about 17,000 copies.

Wider Reach Through Stalls in Conferences

NICEE is committed to sharing earthquake safety issues with the widest possible audience. To reach out to a larger population, NICEE exhibition stalls were set up in several cities in India, such as Bangalore, Bhopal, New Delhi and Hyderabad, and in Singapore during earthquake engineering and related conferences. NICEE would like to thank **Prof V Devaraj** and **Prof Ramancharla Pradeep Kumar** for organizing the booth in Bangalore and Hyderabad, respectively.

Earthquake Engineering Practice

The quarterly periodical *Earthquake Engineering Practice*, launched in March 2007, has received an overwhelming response and the number of subscriptions has been steadily increasing. It stands at 1,800 copies as of March 2008, with about 10% subscriptions from overseas (periodical is not distributed in USA and Canada). The subscription is free of charge for individuals, and at a nominal charge for libraries and organizations (www.nicee.org/EEP.php). As of now, 99% of the subscriptions are individual (that is, free of charge).

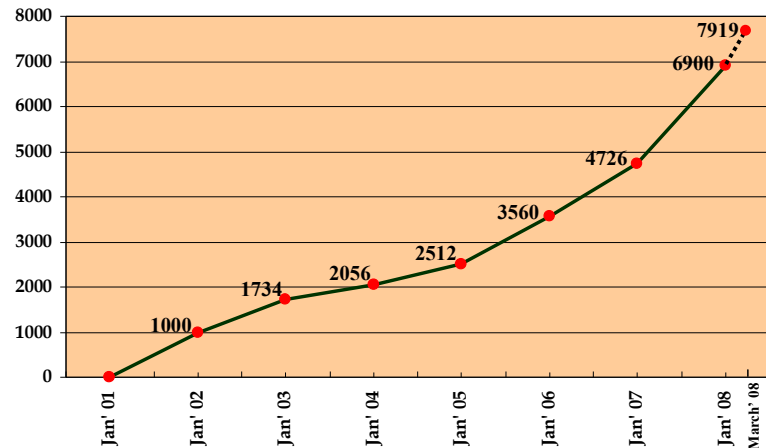
The periodical is being financially supported by the Computers & Structures Inc. (CSI), Earthquake Engineering Research Institute (EERI), Poonam and Prabhu Goel Foundation at IIT Kanpur, and the numerous other donors of NICEE.

Translations into Indian Languages

Marathi translations of *Earthquake Tips*, NICEE's hugely popular publication, were completed and are being released every month. Hindi translation is nearing completion. Discussions are currently on for translations of *Tips* into several other Indian and foreign languages. NICEE wishes to acknowledge **Ms Shubhada Gadkar** for the Marathi translation and **Professor M M Basole** for his meticulous review of the same.

Steady Increase in NICEE Community

The number of subscribers to NICEE had a record growth, with about 3,000 new subscribers added to the list during the year. The number of subscribers stands at about 8,000 as of March 2008.



People

Mrs Snehal Kaushik left NICEE in December 2007 after seven years of dedicated service to the Centre, in view of her family moving to Guwahati. Her tenure saw NICEE start its activities from scratch and reach a level of maturity. NICEE will miss Mrs Kaushik and wishes her well for future.

Cdr Suresh Ailawadi (Retd) joined NICEE in October 2007. He is an engineering graduate from REC Srinagar (now, NIT Srinagar) and has had 24 years of professional experience with Indian Navy. He has successfully handled a very wide variety of responsibilities in the armed forces. NICEE welcomes Cdr Ailawadi.

NICEE Financials

Sales of publications during the year stood at Rs 6.1 lakh, which is substantial but lower than Rs 9.2 lakhs the previous year. Last year had been particularly good in view of a large number of new publications that year.

Even though the number of donors increased to 128 from 114 the previous year, the total amount of donation dropped to Rs. 6.90 lakhs (US\$ 16,000) from Rs 11.56 lakhs (US\$ 27,000) last year. The median donation was Rs 2,000/- (US\$ 50) while average was Rs 5,480 (US\$ 124).

Despite the lower sales and donations compared to last year, NICEE could maintain a healthy activity level thanks to the support from *Poonam and Prabhu Goel Foundation* at IIT Kanpur which provided about 20% of NICEE's overall budget during the year. Since inception, a total of about 300 donors have contributed an overall sum of about Rs 30 lakhs (excluding the five original sponsors) which is a great endorsement of NICEE's activities by the community that believes in the cause of earthquake risk reduction.

Literature Survey Workshop for Post Graduate Students

The sixth annual Literature Survey Workshop for Post Graduate Students from across India was conducted during 27 August – 5 September, 2007, with 71 students participating. The workshop is meant to assist students to carry out extensive literature survey to help improve the quality of their thesis. It includes visits to libraries and faculty offices, discussions with IITK faculty, video shows on earthquake engineering, Structural Engineering Test, and an Earthquake Engineering Quiz. As usual, the students participated enthusiastically and gave excellent *end-of-the-workshop feedback*. The students were provided travel, boarding and lodging. The event was supported by Atomic Energy Regulatory Board (Mumbai), Council for Scientific and Industrial Research (New Delhi), and Poonam & Prabhu Goel Foundation (IIT Kanpur).



Winners of the Structural Engineering Test were: **V. Nagaraj** (1st position) of MS University, Baroda; **Aviket G. Chaudhari** (2nd position) of VNIT, Nagpur; and tie for 3rd position between **Ashutosh Yadav** of VNIT, Nagpur and **Brijesh Patel** of CEPT, Ahmedabad.

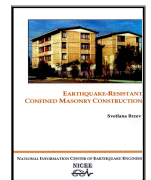
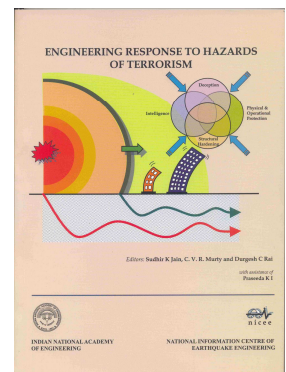
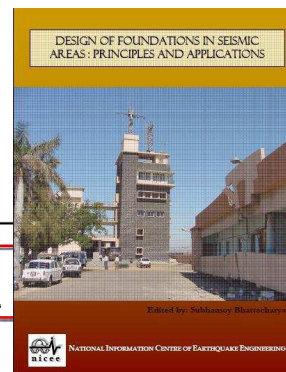
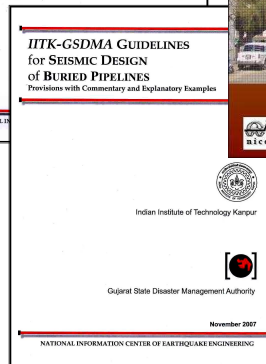
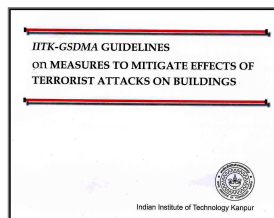
Best Thesis Award

- Best Thesis Award for 2004 Literature Survey Workshop has been awarded to **John K. Abraham** of Karunya Institute of Technology, Coimbatore, for his thesis entitled “Seismic Response Analysis of Reactor Vault for Fast Breeder Reactor” under the supervision of Prof. D. Tensing & Dr. P. Chellapandi.
- Certificates of Merit were awarded to
 - **Yogesh Gopinath Waingankar** of VNIT Nagpur for his thesis entitled “Seismic Response Control using Tuned Mass Damper with Friction Damping” under the Supervision of Prof. O. R. Jaiswal.
 - **Yogesh S. Bamane** of PIET Pune for his thesis entitled “Evaluation of Ductility Factor for RCC Buildings” under the Supervision of Prof. B.G. Birajdar.
 - **Shriram V. Hazare** of PIET Pune for his thesis entitled “Evaluation of Over strength Factor for RCC Structure” under the Supervision of Prof. B.G. Birajdar.

New Publications During 2007-08

Several new publications were added during the year:

- Design of Foundations in Seismic Areas: Principles and Applications, Subhamoy Bhattacharya (editor)
- Engineering Response to Hazards of Terrorism, Sudhir K. Jain, C.V.R Murty and Durgesh Rai (editors)
- Earthquake-Resistant Confined Masonry Construction, Svetlana Brzev
- IITK-GSDMA Guidelines for Seismic Design of Buried Pipelines
- IITK-GSDMA Guidelines on Measures to Mitigate Effects of Terrorist Attacks on Buildings
- Full list available at: www.nicee.org/Publications.php



Website (www.nicee.org)

NICEE web site remains extremely popular with huge amounts of downloads seen every month. In fact, while searching “Earthquake Engineering”, NICEE comes first if search is made on www.google.co.in and seventh if search is made on www.google.com. Efforts are on to further enrich the web site contents and make the site even more users friendly. All suggestions are welcome.

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