

Minutes of the 10th National Advisory Committee (NAC) meeting of the National Information Centre of Earthquake Engineering (NICEE) held at IIT Kanpur on November 27, 2014

The meeting was attended by:

- Prof. Indranil Manna, Director, IIT Kanpur
- Ar. Balbir Verma, Practicing Architect and Past Chairman of IIA (Chairman)
- Mr. Rajiv Sharma, CSI Engineering Software Private Limited, New Delhi
- Mr. Hemant Kumar, CSI Engineering Software Private Limited, New Delhi
- Prof. Keya Mitra, Indian Institute of Engineering Science and Technology, Shibpur, Howrah
- Prof. Atanu K. Dutta, Jorhat Engineering College, Jorhat
- Prof. Sudhir K. Jain, Director, IIT Gandhinagar
- Prof. Prabhat Munshi, Dean of Resources and Alumni, IIT Kanpur
- Prof. Rajesh Srivastava, Head, Department of Civil Engineering, IIT Kanpur
- Prof. Durgesh C. Rai, Department of Civil Engineering, IIT Kanpur (Convener)
- Dr. Bhaskar Ganti, Principal, Puranchandra Vidyaniketan, Kanpur
- Dr. K. K. Bajpai, Department of Civil Engineering, IIT Kanpur
- Dr. V. D. Shrivastava, Librarian IIT Kanpur
- Cdr. Suresh Ailawadi, Retd., Consultant, NICEE, IIT Kanpur

Prof. Mahesh Tandon (Tandon Consultants Private Limited, New Delhi), Dr. Shailesh K. Agarwal (Building Material and Technology Promotion Council, New Delhi), Prof. CVR Murty (Director, IIT Jodhpur) Mr. Alok Srivastava (Cengage Learning India Pvt. Ltd.), Prof. Onkar Dikshit (IIT Kanpur), Prof. Bharat Lohani (IIT Kanpur), Prof. Dheeraj Sanghi (IIT Kanpur), Prof. Vinay K. Gupta (IIT Kanpur), Prof. Samit Ray Chaudhuri (IIT Kanpur) and Prof. Prishati Raychowdhury (IIT Kanpur), could not attend the meeting due to other pressing commitments.

1. Introductory Remarks:

- 1.1. Prof. Durgesh C. Rai welcomed all the members and expressed his gratitude to all present for sparing their valuable time to attend the meeting. He pointed out the importance of the annual meeting of the Advisory Committee and how the past nine meetings have made critical contributions to the growth of NICEE. He then briefly described about the activities of NICEE during the last financial year, financial status of corpus, earnings and expenditure, functioning and other ongoing activities. In addition to regular activities, a four day workshop is scheduled to be conducted during March 16-19, 2015 by NICEE in collaboration with Computers & Structures, Inc., New Delhi. This workshop was aimed at sensitizing the professional engineers about the softwares available for dynamic analysis and common pitfalls to be avoided during their usage.
- 1.2. Prof. Manna appreciated the good work of NICEE for the last 14 years which justifies its existence for the benefit of society at large and suggested that it was time for NICEE to take a call to do more by expanding the group or stay where it was. He highly appreciated the fact that NICEE website was getting about 35,000 hits every day. He suggested considering a token subscription be charged for the membership of NICEE and separate categories of membership should be created for students, professionals, etc. He suggested that a conference for paper presentation should be organized by NICEE

and good papers from the conference can then be taken up for printing. He suggested that other disciplines of Civil Engineering such as Geotech to be included in the fold of NICEE. He also suggested considering advertisements on NICEE website for generating revenue and writing a model code for the benefit of the builders and other stake holders. Prof. Manna reviewed the support from Poonam and Prabhu Goel Foundation with inputs from Prof. Munshi and Prof. Jain.

- 1.3. At this stage the Director had to leave the meeting room in order to attend to other issues of the Institute.

2. Review of the Year 2013-14:

Dr. Rai then went on to make a detailed presentation on the NICEE activities during the year 2013–14 and discussed various issues including Statement of Accounts, publication activities and the state of NICEE funds. Some of the highlights of the year include:

- 2.1. NICEE continued with its agenda of providing publications and disseminating information to all.
- 2.2. Funding for research and outreach in earthquake engineering from the Poonam and Prabhu Goel Foundation at IITK has been effectively used for scaling up the efforts of NICEE. NICEE also got a support of ₹ 9.00 lakh from IIT Kanpur for infrastructure development. This helped upgrade the office equipment available with NICEE for an improved performance.
- 2.3. NICEE distributed more than 5,600 items of monographs/CDs etc. during the year 2013-14. In addition, ~14,000 copies of the periodical (*Earthquake Engineering Practice*) were distributed. The periodical has received an excellent response with current subscriber base of ~3400 persons from 69 countries; most (99%) of these being free subscriptions. The electronic newsletter is now being sent to more than 12,500 subscribers of NICEE, every month. In addition, information about important workshops scheduled to be held is also circulated using the electronic media.
- 2.4. NICEE now offers three levels of Institutional membership, viz. Platinum, Gold and Silver at ₹ 4.00 lakh and above (US\$ 10,000 and above), ₹ 1.00 lakh and above (US\$ 2,500 and above) and ₹ 25,000 and above (US\$ 550 and above) respectively. As on date we have one Platinum, two Gold and five Silver subscribing members.
- 2.5. Efforts continued in the direction of engaging the undergraduate students of architecture towards earthquake safety. The annual architecture workshop was conducted at IIT Kanpur for the sixth time during July 07-12, 2013 in which 57 students from 14 architecture colleges representing 10 cities of India participated.
- 2.6. The annual Literature Review Workshop for PG students of Civil Engineering was held for the twelfth time during June 17-26, 2013. This was attended by 48 participants from 20 colleges across India.
- 2.7. The project aiming to sensitize the school going children about seismic safety which was started in 2009 has met with reasonable success during the year. More than 350 schools from 50 cities across the country have participated till date. Like previous years, the final round of the quiz was conducted at IIT Kanpur on January 26 in the memory of the Bhuj earthquake.

- 2.8. The sales of monographs during the year 2013-14 were ₹ 12.07 Lakh (against ₹ 12.03 Lakh the previous year) with average sale of ₹ 2786/- (against ₹ 2322/- the previous year).
- 2.9. Donations received during the year 2013-14 totaled ~₹ 4.30 Lakh from 77 donors (median donation ₹ 5,000, average donation ₹ 5,582), as compared to 65 donors during the previous year who contributed ₹ 8.81 Lakh. Since inception, NICEE has received ~ ₹ 74 Lakh donations from 494 donors (besides the original sponsors) indicating tremendous appreciation of NICEE's work by the professional community in India and overseas and society at large.
- 2.10. The total spending during the year 2013-14 was ~₹ 44 Lakh (~₹ 39 Lakh the previous year). This was covered by sales (8%), special projects (25%), Prabhu Goel (33% for 2012-13) and (34% for 2013-14).

3. Initiatives towards architects

- 3.1. Cdr. Ailawadi briefly informed the members present regarding the workshop for the third year undergraduate students of Architecture which was being held annually since 2008.
- 3.2. The "Workshop on Earthquake Resistant Practices for Undergraduate Students of Architecture" was conducted at 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. The following faculty members were the resource persons of the workshop:

- Prof. Keya Mitra, Department of Architecture, Town and Regional Planning IEST, Shibpur
- Prof. Vasudha Gokhale, Dr. B.N. College of Architecture for Women, Pune
- Prof. Meenu Varshney, Department of Architecture, MNIT Jaipur, Jaipur
- Prof. Alpana Dongre, Department of Architecture, VNIT Nagpur, Nagpur
- Prof. Atanu Dutta, Department of Civil Engineering, JEC Jorhat, Jorhat
- Mr. Hari Kumar, GeoHazards New Delhi

The final designs of the project assignment prepared by participant teams were evaluated by a Jury Board on the last day through presentations followed by brief questioning by the Jury. The Jury consisted of 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 and Prof. Rajeev Kacker, College of Architecture, Lucknow. After the initial scrutiny, best six designs were shortlisted, which were again reviewed by the Jury. The final winning teams were as follows:

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| I Prize | (a) Anam Khaliq, Babu Banarasi Das National Institute of Technology & Management, Lucknow |
| | (b) Prathmesh Mahadev Kubal, Visvesaraya National Institute of Technology Nagpur, Nagpur |

- II Prize**
1. (a) Varun Goyal, Maulana Azad National Institute of Technology Bhopal, Bhopal
(b) Parikshit Prakash Mudholkar, MIET, Gondia
 2. (a) Unmesh Shrikant Kelkar, Pillai College of Architecture, New Panvel
(b) Krishan Upadhyay, Zakir Hussain College of Engineering & Technology, Aligarh
- III Prize**
- (a) Lakshmi Priya, Smt. Manoramabai Mundle College of Architecture, Nagpur
 - (b) Himanshu Verma, School of Planning and Architecture, Bhopal

3.3. During the workshop the participants were given a copy of RESIST software which they used during the workshop and then carried with them as their personal copy. Ar. Verma suggested that we must share the report of the workshop with the colleges whose students did not participate in the workshop.

4. Workshops, Open House and Inter School Quiz @ IITK:

- 4.1. PG student Literature Review workshop was held during June 17-26, 2013 in which 48 students from 20 colleges all over India had participated. In this workshop the participants were encouraged to make use of available literature at NICEE library and PK Kelkar Central Library for doing quality research work. A visit to the National Wind Tunnel Facility at IIT Kanpur along with a visit to the various laboratories of Civil Engineering was also organised, so that the participants get abreast with the latest available technologies in the country. 92% of the participants were satisfied with the workshop and downloaded approximately 500 MB of data and Xeroxed 650 pages per participant.
- 4.2. Open House was attended by eight participants for a period of five days during November 04–08, 2013, although 18 participants had indicated their intent to attend the same. This was due to last minute backing out of participants due to personal reasons.
- 4.3. The Inter School Quiz which was being held annually since 2009 was a grand success with more than 350 schools from about 50 cities having participated in the quiz till date. 88 schools from 40 cities showed their willingness to participate in the quiz this year. In the final round of the quiz on 26 January, 10 schools - who were the winners of their respective preliminary rounds, viz. Air Force School, Kanpur; DRV DAV Centenary Public School, Phillaur; Nehru World School, Ghaziabad; The Shri Ram School, Mousari, Gurgaon; Mukund Lal Public School, Yamuna Nagar; Ryan International School, Surat; Christ Church Girls Senior Secondary School, Jabalpur; Centre Point School, Wardhman Nagar, Nagpur; Parvati Radhakishan Fomra School, Mathura and City Pride School, Pune participated. The quiz had four rounds viz. Round Robin, Picture Round, Rapid Fire Round and Lucky number Round. The questions were based on the publication "Earthquake Tips" by Dr. CVR Murty. The winning team from Parvati Radhakishan Fomra School, Mathura scored 139 points. Ryan International School, Surat and City Pride School, Pune came second scoring 131 points and DRV DAV Centenary School, Phillaur came third with 130 points.
- 4.4. Dr. Ganti promised to take up the matter with Director of CBSE and in the meeting with Principals of schools in order to ensure an increase in the participation of schools. He

also suggested conducting the poster competition in order to increase awareness amongst school children.

5. Translation Projects:

- 5.1. The committee was informed that Hindi translation of Earthquake Tips is now available in the form of a hard copy which has been printed in a comfortable user friendly format. The printing of this publication was partially supported by BMTPC. The translation of EQ Tips in Telugu, Gujarati, Punjabi, Oriya, Burmese, Turkish, etc. is being attempted.
- 5.2. It was suggested that attempts should be made to translate these into Nepali, and Assamese language for its spread in the North Eastern Region of the country.

6. Improvements in NICEE Website:

More suggestions were put forward to make the NICEE website useful in order to enhance its contents and attract visitors with new developments. Dr. Rai informed that after the WCEE papers have been uploaded on NICEE's website there has been a marked increase in the traffic on the website and ~1GB of download per day was reported. Prof. Jain suggested that this page could be used to leverage donations for NICEE.

- 6.1. Facebook page of NICEE has been started. Although it is not very active but a decent start has been made and it is expected to improve further with time.
- 6.2. It was suggested to create a corner on the website for the model Policy statement on seismic safety. Dr. Rai has agreed to prepare it for the NICEE website.
- 6.3. A need for an Architect Corner on the website had been felt in previous meetings to address seismic safety issues relevant to the architecture community. This will be started shortly, first by referring to various resources available at NICEE website which are relevant to architectural profession.

7. North-East Seismic Safety Initiative

- 7.1. Prof. Rai informed the august gathering that a workshop on Seismic Safety Agenda in North-Eastern Region of India was conducted at IIT Guwahati on March 22, 2014. The workshop was attended by 29 participants representing JEC Jorhat, NIT Meghalaya, AEC Guwahati, AEI Guwahati, IEST Shibpur, NHPC Guwahati, ASDMA Guwahati, GMDA Guwahati, Professional Engineers and Architects in addition to IIT Guwahati and IIT Kanpur. Several issues related to seismic risk in North-Eastern region of India were discussed in the day long workshop. Though the awareness about the seismic hazard is high in the region, innovative strategies are required to reduce the growing seismic risk due to existing vulnerable structures and further increase in their inventory. The agenda for addressing the seismic risk mitigation issues in the region was drawn up. However a necessity was felt to carry forward this agenda of NICEE more vigorously.
- 7.2. It was decided that similar workshops should be undertaken in other cities of NE states. Further, NICEE should explore collaboration with other organizations which are currently engaged in construction or education related activities.
- 7.3. Prof. Dutta suggested conducting the school quiz, training of masons and popularizing Confined Masonry in the North Eastern region of the country. Ar. Verma opined that Confined Masonry was essential for the semi-urban areas of the country also.

8. Publicity and Brand Building:

- 8.1. Cdr Ailawadi Informed that there was a fair increase in the growth of NICEE registrations. The EERI e-affiliate membership being offered through NICEE was helping the members to keep abreast with the international scenario in the field of Earthquake Engineering and it should be promoted more energetically to attract more attention among professionals engaged in earthquake engineering.
- 8.2. It was opined that project on developing the film for school children be pursued vigorously.
- 8.3. Mails be sent to participants of previous workshops to help in spreading the word for the same and entuse more participants to apply for the same.
- 8.4. Mr. Rajiv and Mr. Hemant of CSI suggested conducting a Young Engineers Workshop in which CSI, NICEE and other Structural Engineering firms could play a major role. Similarly a workshop for UG students of Civil Engineering on the lines of Summer Camp may be initiated.
- 8.5. Ar. Verma and Prof. Jain suggested approaching ICI, IBC, etc. for spreading the word about NICEE through exhibitions during their conferences. Ar. Verma suggested reviving the links with NASA for showcasing NICEE activities during these events.

9. Distribution and Sales of Publications

- 9.1. It was felt that the sales income of NICEE should be pushed up and a sales target of ₹ 15 Lakh was decided for the financial year 2014-15.
- 9.2. The members were informed that the attempts to sell NICEE publications through Flipkart did not materialize as no interest was shown by them. Prof. Mitra suggested that feasibility to sell NICEE publications through other such websites be explored.
- 9.3. It was suggested that basic thread of EEP be modified to carry advertisements from industry and academia on all cover pages excepting the front cover. This could help in revenue generation also. Also, a tear off page, requesting the individual subscribers to entuse their organisations to subscribe for the periodical, be added.

10. New Publications and Products

- 10.1. It was felt that the distribution of the periodical *Earthquake Engineering Practice* which presently stood at around 3400 should be attempted to be raised to 4000 during the year 2014-15. However, since major chunk of this distribution (~99%) was free of cost, attempts should be made to have more paid subscriptions with an annual subscription of ₹ 3,000/- . This could be achieved by sending letters to individuals who are getting the periodical for free to encourage their organisations to subscribe for the periodical. More paid subscription of the periodical (*Earthquake Engineering Practice*) has to be encouraged. Also fresh initiative should be launched to attract subscription from libraries of colleges of engineering and architecture across the country.
- 10.2. The projects of translation of NICEE publications into vernacular be pursued with more vigour. The necessity to undertake the same should be analysed critically before taking up the translation work.

11. Confined Masonry Initiative

Prof. Rai informed the committee that this building typology was being used effectively at IIT Gandhinagar for building of hostels and residential houses. Based on the experience gained there it is now being proposed to revise the manual authored by Prof. Svetlana Brzev. Prof. Keya Mitra will be joining hands with Prof. Brzev developing this new publication. The resources required for the preparation of manuscript, such as for rendering of sketches and drawings will be provided by NICEE.

12. Financial Position

12.1. The Committee expressed its gratitude towards continued availability of funds of the Poonam and Prabhu Goel Foundation at IITK towards research and outreach in earthquake engineering.

12.2. The Committee also expressed its gratitude towards Mr. Ashraf Habibullah, Computers and Structures Inc (CSI) USA and CSI India for their very substantial continued financial support.

12.3. The “Institutional Membership” wherein the organizations could contribute ₹ 25,000/year (or more) has met with a reasonable success. In the year 2014, in addition to the existing members, IIT Gandhinagar became a Gold member. The current members are:

- (a) Platinum Subscribing Members (₹ 4 Lakh/ year and above)
 - Computers & Structures Inc, Berkeley, USA
- (b) Gold Subscribing Members (₹ 1 Lakh/ year and above)
 - Tandon Consultants Pvt. Ltd, New Delhi
 - Indian Institute of Technology Gandhinagar, Gandhinagar
- (c) Silver Subscribing Members (₹ 25000/ year and above)
 - Bhagalpur College of Engineering, Bhagalpur
 - EUCENTRE, Pavia, Italy
 - Indian Institute of Technology Madras, Chennai
 - Shirish Patel and Associates Consultants Private Limited, Mumbai
 - VMS Consultants, Mumbai

13. Functioning of NICEE

Cdr Ailawadi informed the committee that we were at the rock bottom as far as the staff position was involved. It was decided that we should be on the look out for one more staff position and appoint at the earliest. IT management should continue at its present status as it was running rather smoothly.

14. Other Future Activities

14.1. Cdr Ailawadi informed that the inter-school quiz was going on smoothly. Seismic safety awareness lectures in schools could be thought of after developing the animation film. It was opined that since GeoHazards Society (GHS) India is doing an excellent work in this direction, a joint venture with them could be thought of.

14.2. It was proposed that a question bank of frequently asked queries on earthquake engineering be prepared with the help of PG students of IIT Kanpur and a “Question of

the Month” be posted on the NICEE website. This could be subsequently changed to “Question of the Week” when a reasonably large question bank has been created.

There being no other points, the meeting was adjourned with a vote of thanks to Ar. Balbir Verma for chairing the meeting.

Durgesh C. Rai
Convener, National Advisory Committee
National Information Centre of Earthquake Engineering
Indian Institute of Technology Kanpur