

Minutes of the 11th National Advisory Committee (NAC) meeting of the National Information Centre of Earthquake Engineering (NICEE) held at IIT Kanpur on October 17, 2015

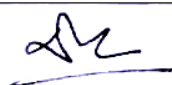
The meeting was attended by:

- Prof. AK Chaturvedi, Deputy Director, IIT Kanpur
- Ar. Balbir Verma, Practicing Architect and Past Chairman of IIA (Chairman)
- Prof. Mahesh Tandon, TCPL, 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. Purnendu Bose, Head, Department of Civil Engineering, IIT Kanpur
- Prof. Javed Malik, Department of Civil Engineering, IIT Kanpur
- Prof. Durgesh C. Rai, Department of Civil Engineering, IIT Kanpur (Convener)
- Dr. K. K. Bajpai, Department of Civil Engineering, IIT Kanpur
- Cdr. Suresh Ailawadi, Retd., Consultant, NICEE, IIT Kanpur

Prof. Indranil Manna (Director, IIT Kanpur), 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. Amalendu Chandra, (DORD, IIT Kanpur), Prof. BV Phani (DORA, IIT Kanpur), Prof. R Gurunath (Professor in-charge, PK Kelkar Library, IIT Kanpur) Prof. Onkar Dikshit (IIT Kanpur), Prof. Vinay K. Gupta (IIT Kanpur), Prof. NR Patra (IIT Kanpur), Prof. Samit Ray Chaudhuri (IIT Kanpur), Prof. Prishati Raychowdhury (IIT Kanpur), and Dr. Bhaskar Ganti (Principal, PCVN 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 ten 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. He apprised the august members present about the successful use of Confined Masonry at the campus of IIT Gandhinagar which is presently under construction and is nearing its completion stage. In addition to regular activities, Prof. Rai informed that a workshop on Structural Analysis Programs was conducted at IIT Kanpur during March 16-19, 2015 with an objective to emphasize the role of higher order nonlinear static and time-history analyses of structural behaviour upto collapse under dynamic forces. The savings from this workshop will be used to support other activities of NICEE.
- 1.2. Prof. Chaturvedi appreciated the good work of NICEE for the last 15 years which justifies its sustenance and work for the benefit of society at large. He highly appreciated the hard work being done by NICEE and commented that NICEE had been doing the real work without bothering for visibility. It was time now for NICEE to seek a higher



recognition for its genuine work since this was also the call of the day. In the existing scenario, it was essential to stress at least equally, if not more, on ensuring visibility of the activities of NICEE.

- 1.3. At this stage the Deputy Director had to leave the meeting room in order to attend to other issues of the Institute.
- 1.4. Prof. Bose suggested that the faculty members who have recently joined the institute need to be enthused to join and contribute towards NICEE activities.

2. Review of the Year 2014-15:

Dr. Rai during the presentation on the NICEE activities of the FY 2014–15 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, free of cost.
- 2.2. NICEE distributed more than 4,200 items of monographs/CDs etc. during the year 2014-15. 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 ~3300 persons from 68 countries; most (99%) of these being free subscriptions. The electronic newsletter is now being sent to more than 12,600 subscribers of NICEE, every month. In addition, information about important forthcoming workshops is also circulated using the electronic media.
- 2.3. 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 two Platinum(CSI Berkley and IIT Gandhinagar), one Gold (PNC Infratech Ltd., Agra) and two Silver subscribing members(VMS Consultants, Mumbai and Balbir Verma and Associates, New Delhi).
- 2.4. 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 seventh time during June 30- July 05, 2014 in which 61 students from 20 architecture colleges representing 17 cities of India participated.
- 2.5. The annual Literature Review Workshop for PG students of Civil Engineering was held for the thirteenth time during June 06-14, 2014. This was attended by 26 participants from 12 colleges across India.
- 2.6. 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 about 100 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 remembrance of the Bhuj earthquake. The winning team was from Gwalior Glory High School, Gwalior.
- 2.7. Funding for research and outreach activities in earthquake engineering from the Poonam and Prabhu Goel Foundation at IITK has been effectively used for scaling up the efforts of NICEE and research activities by students.
- 2.8. The sales of publications during the year 2014-15 were ₹ 12.52 Lakh (against ₹ 12.07 Lakh the previous year) with average sale of ₹ 4,145/- (against ₹ 2,786/- the previous year).

- 2.9. Donations received during the year 2014-15 totaled ~₹ 11.02 Lakh from 59 donors (average donation ₹ 18,673), as compared to 77 donors during the previous year who contributed ₹ 4.25 Lakh. Since inception, NICEE has received ~ ₹ 85 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 expenditure during the year 2013-14 was ~₹ 45 Lakh (~₹ 44 Lakh the previous year). This was covered by sales (28%), special projects (2%), Prabhu Goel (13%) and endowment interest (57%).

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 6 day "Workshop on Earthquake Resistant Practices for Undergraduate Students of Architecture" was conducted at IIT Kanpur during June 30 – July 05, 2014, in which 61 students who had completed six semesters of studies in their respective architecture programmes, from 20 institutes representing 17 cities from all over India participated. The participants were selected from around 100 applications received. The following faculty members were the resource persons of the workshop:

- Prof. Vasudha Gokhale, Dr. B.N. College of Architecture for Women, Pune
- Prof. Alpana Dongre, VNIT Nagpur
- Prof. Atanu Dutta, Jorhat Engineering College, Jorhat
- Prof. Indrani Gogoi, Assam Engineering Institute, Guwahati
- Prof. Nehal Desai, SCET Surat

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 Dr. A.K. Mittal, Retired Structural Engineer from CPWD; Prof. Alpana Dongre, VNIT Nagpur; Prof. Indrani Gogoi, Assam Engineering Institute, Guwahati and 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 top three position holders were as follows.

First Position

- (a) Ms. Meghna Mallick, Pillo Modi College of Architecture, Cuttack
(b) Ms. Adreja Deka, School of Planning & Architecture, Bhopal

Second Position

- (a) Ms. Radhika Kulkarni, Apeejay School of Architecture, Greater Noida
(b) Mr Siddarth P.T., School of Architecture & Planning, Chennai

Third Position

- (a) Ms. Karishma Joshi, BKPS College of Architecture, Pune
(b) Mr. Durga Prasad Gupta, School of Planning & Architecture, Bhopal
(c) Ms. Vishakha Ulhas Naik, Pillai College of Architecture, New Panvel

- 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.

- 3.4. Prof. Mitra stressed on the need to train more Architecture Faculty on the lines of NPEEE programme. Ar. Verma suggested that a proposal be sent to NDMA for training of the Architecture Faculty.

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

- 4.1. PG student Literature Review workshop was held during June 05 -14, 2014 in which 26 students from 12 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. More than 80% of the participants were satisfied with the workshop and downloaded approximately 10 GB of data and Xeroxed 3000 pages.
- 4.2. Open House was attended by 10 participants for a period of ten days during November 03 – 12, 2014, although 17 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 100 cities having participated in the quiz till date. 66 schools from 32 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; Karam Devi Memorial Academy, Kanpur; Centre Point School, Wardhman Nagar, Nagpur; Shah Faiz School, Ghazipur; Delhi Public School, Gurgaon; Green Field School, Delhi; Delhi Public School, Gandhidham; Mukundlal Public School, Yamunanagar; Wendy Junior High School, Gwalior and Gwalior Glory High School, Gwalior 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 of the finals with 130 points was Wendy Junior High School, Gwalior. The team from Centre Point School, Nagpur secured the second position scoring 110 points while the team from Gwalior Glory High School, Gwalior scored 100 points to bag the third position.
- 4.4. Prof. Jain suggested that to improve the participation in the Literature Review Workshop some fun activities will need to be included. This could include preparing designs, models, etc. He also suggested that the inter school quiz could be associated with MHRD programme – Rashtriya Avishkar Abhiyan. Prof. Mitra suggested that a fresh question bank be prepared for the quiz.

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 Marathi and Punjabi translation has also been completed and available as a soft copy on website. The translation of EQ Tips in Telugu, Gujarati, 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:

- 6.1. Prof. Rai informed that the new website of NICEE is being developed and suggestions on the same will be sought shortly. 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.
- 6.2. 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.
- 6.3. 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 has been launched on the NICEE website but still needs a lot of improvement. Suggestions for the same are welcome.
- 6.4. Prof. Tandon suggested that free downloads available from NICEE website should be clearly indicated on the first page of the website.

7. Workshop on Structural Analysis Programs

- 7.1. Prof. Rai informed the august gathering that a workshop on Structural Analysis Programs ETABS and SAP2000 was conducted at IIT Kanpur during March 16-19, 2015. The mix of theoretical and practical aspects helped the participants understand the concepts and clarify their doubts. The workshop was attended by 48 participants who are practicing professionals from leading engineering design firms, 9 academicians and 8 students from all over the country. The participants appreciated the lectures delivered by Prof. Durgesh C. Rai of IIT Kanpur and Mr. Rajiv Sharma of CSI-ESPL, New Delhi. Dr. Vaibhav Singhal, IIT Kanpur, helped with the preparation of technical contents for various lectures. The resource persons of this workshop have been generous enough to donate their time and efforts for which NICEE expresses its deep gratitude.
- 7.2. Prof. Jain suggested that a basic software workshop for understanding of the students should also be conducted. Prof. Rai informed that such a workshop was being clubbed with the Open House scheduled during November 16-25, 2015. The workshop will be held during November 23-25, 2015 in association with CSI-ESPL, New Delhi.

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 video and white board animations based on *IITK-BMTPC Earthquake Tips* 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. Ar. Verma and Prof. Jain suggested approaching ICI, IBC, etc. for spreading the word about NICEE through exhibitions during their conferences. Prof. Tandon suggested that the word could also be spread on websites of other agencies such as ICI through mutual agreements.

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 2015-16. Prof. Rai suggested that the order form with the complete list of NICEE publications may be included in all publications of NICEE.
- 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. The possibility of other such agencies as Amazon, etc, will be explored.
- 9.3. Prof. Jain suggested approaching BMTPC for supporting the quarterly periodical – *Earthquake Engineering Practice*.

10. New Publications and Products

- 10.1. Prof. Rai informed that 8 more Earthquake Tips authored by Prof. CVR Murty will be released shortly.
- 10.2. It was felt that the distribution of the periodical *Earthquake Engineering Practice* which presently stood at around 3300 should be attempted to be raised to 4000 during the year 2015-16. 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 ₹ 4,000/- . 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.
- 10.3. 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 has been used effectively at IIT Gandhinagar for building of hostels and residential houses. Prof. Jain distributed a booklet on the subject. 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 and permission to NICEE to distribute software of SAP family to educational institutions while retaining the proceedings for NICEE activities.
- 12.3. The “Institutional Membership” wherein the organizations could contribute ₹ 25,000/year (or more) has met with a reasonable success. The current members are:

- (a) Platinum Subscribing Members (₹ 4 Lakh/ year and above)
 - Computers & Structures Inc, Berkeley, USA
 - Indian Institute of Technology Gandhinagar, Gandhinagar
- (b) Gold Subscribing Members (₹ 1 Lakh/ year and above)
 - PNC Infratech Ltd., Agra
- (c) Silver Subscribing Members (₹ 25000/ year and above)
 - Balbir Verma and Associates, New Delhi
 - 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.

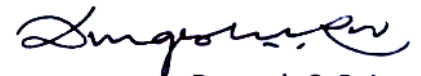
14. Other Future Activities

14.1. Prof. Rai informed that a Workshop for young researchers associated with the field of Earthquake Engineering was proposed to be held during the current year. During this panel discussions and brain storming sessions will be held to attract more students for research in the field of Earthquake Engineering.

14.2. Mr. Hemant Kumar suggested that a course be conducted on designing of High Rise Buildings especially with reference to the softwares available for use.

14.3. Prof. Tandon suggested that a course be conducted on Design of Bridges also.

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