

Minutes of the 9th National Advisory Committee (NAC) meeting of the National Information Centre of Earthquake Engineering (NICEE) held at IIT Kanpur on August 06, 2013

The meeting was attended by:

- Prof. Indranil Manna, Director, IIT Kanpur
- Ar. Balbir Verma, Practicing Architect and Past Chairman of IIA (Chairman)
- Prof. Keya Mitra, Bengal Engineering & Science University, Shibpur, Howrah
- Prof. Sudhir K. Jain, Director, IIT Gandhinagar
- Prof. S.C. Srivastava, Deputy Director, IIT Kanpur
- Prof. A.K. Chaturvedi, Dean, Research and Development, IIT Kanpur
- Prof. Javed Malik, Department of Civil Engineering, IIT Kanpur
- Prof. Samit Ray Chaudhuri, 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
- Dr. V. D. Shrivastava, Librarian IIT Kanpur
- Ms. Shradha Shukla, NICEE, IIT Kanpur
- Ms. Seema Kushwaha, NICEE, IIT Kanpur
- Cdr. Suresh Ailawadi, Retd., NICEE, IIT Kanpur

Prof. Mahesh Tandon (Tandon Consultants Private Limited, New Delhi), Dr. Shailesh K. Agarwal (Building Material and Technology Promotion Council, New Delhi), Mr. Alok Srivastava (Cengage Learning India Pvt. Ltd.), Prof. Atanu K. Dutta (Jorhat Engineering College), Mr. Hemant Kumar (Computers & Structures Inc., India, New Delhi), Prof. Prabhat Munshi (Dean, Resource & Alumni, IIT Kanpur), Prof. Vinay K. Gupta (Head, CE Dept, IIT Kanpur), Prof. Onkar Dikshit (IIT Kanpur), Prof. Bharat Lohani (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 eight meetings have made critical contributions to the growth of NICEE. He also welcomed the new National Advisory Committee of NICEE and thanked the outgoing members for their valuable contribution to the functioning of NICEE. He specifically thanked the outgoing Chairman; Prof. Mahesh Tandon for his support to NICEE during all these years. He then made a brief presentation on NICEE's inception, functioning and ongoing activities.

1.2. After the presentation, Prof. Jain stated that NICEE has been functioning satisfactorily for more than a decade now and the existence of such an organisation at IIT Kanpur should be further leveraged by the Institute. Industry is using several codes developed by the faculty of IIT Kanpur in collaboration with the colleagues at other Institutes of the country. These codes are being distributed through NICEE which gives a sense of pride and ownership to NICEE and IIT Kanpur.

He also intimated that NICEE has been running on soft money with no Government funding and was thus unique in its functioning. This could be role model for developing similar centres in the Institute. He commended the NICEE staff for working effectively and efficiently, thus ensuring minimum requirement of the faculty time.

However, the fund raising activities need to be pursued a lot more vigorously in order to ensure financial stability which will help its sustainability and more effective functioning of NICEE in the long run.

- 1.3. Ar. Verma expressed satisfaction over the functioning of NICEE till date and suggested to locate more supporters of the organisation in several cities of the country, who would help spread the NICEE's activities more vigorously in their regions. This will also help in developing a strong network of NICEE family.

He stated that while traversing several parts of the country and abroad he could see and feel the impact of NICEE and the benefits which were accruing to the society by the existence and functioning of NICEE. He agreed that the rewards of NICEE's good work have not yet come back fully to NICEE and the Institute. Appropriate steps in this direction to take advantage of the past achievements to further the activities of NICEE must be taken in order to achieve a greater reach to the masses and higher benefit to the society.

He also opined that the construction industry will soon look up to NICEE for guidance as India is still in development stage. In the present day scenario, the construction in the country is more than what is happening in the whole of Europe put together.

He expressed satisfaction in the manner NICEE was collating and disseminating information to all the stake holders of the building industry towards seismic safety. However, he laid stress on the necessity of increasing the financial support and suggested to work towards increasing the number of institutional members of NICEE by approaching corporate sector. He expressed satisfaction over the initiation of Institutional Membership which was discussed in the last Advisory Committee meeting.

- 1.4. Prof. Srivastava (SC) observed that he had seen the organisation grow from its infancy stage and commended the activities and publications of NICEE. The problem of sustainability now needs to be attacked from several angles. He advised Prof. Rai to have a separate meeting with him to discuss the issue of support from IITK to NICEE.

He also suggested that attempts must be made to involve members of other disciplines of the institute also with NICEE activities. He felt a strong need to sensitize the new faculty members of the institute towards seismic safety as the interest level seen as on date was pretty peripheral and this may require special invites to the faculty who have recently joined the institute in order to increase their awareness towards seismic safety and possible involvement in its activities.

- 1.5. Prof. Mitra commented that the teachers and faculty of the Architecture were trained way back in December 2003 under National Program of Earthquake Engineering Education (NPEEE) program of Ministry of Human Resource Development (MHRD), GoI, and a strong need was felt to sensitize them once again. Ar. Verma suggested that this project could be taken up with the help from National Disaster Management Authority (NDMA).

- 1.6. Prof. Chaturvedi suggested that a concise calendar of NICEE activities should be put up on the website of IITK so as to increase the visibility of NICEE. Also, attempts must be made to have visible and tangible connections with the construction industry.

- 1.7. Prof. Manna, Director IIT Kanpur, who was attending the meeting for the first time, expressed his appreciation in the manner in which NICEE was started on a modest note with a noble objective. He commented that the information collation and dissemination needs to be taken up more aggressively by increasing the involvement of individuals of diverse disciplines associated with the issues of seismic safety.

He stated that in an institute of this stature academics and research need to go hand in hand with more stress on research aspects. In order to ensure the progress of this aspect satisfactorily, it is essential to generate new knowledge and collate the available information for further dissemination which NICEE has been doing in an excellent manner. Hence, the objectives of NICEE are relevant to the core mandate of the Institute. NICEE should therefore continue its

good work and sustain the ongoing activities but must go beyond the present days working level.

He opined that attempts must be made to create a state-of-art manual which could become a model code of practice for any construction industry in India and other countries as well. Such codes if they are existing in other countries could be rewritten with appropriate modification so that their relevance in the Indian context is ensured. The Indian National Academy of Engineering (INAE) can then be approached to ratify it so that its compliance can be ensured and implemented. Construction companies can also be approached for the funding of NICEE activities.

He suggested that the scope of the organisation should be expanded to increase its reach to the common people. If need be, few more people may be included in the board. The requirements of additional funding and office space could be addressed at the appropriate level in the Institute.

In his concluding remarks, he stated that the NICEE was a good initiative and a useful activity and all out efforts should be made to ensure its vibrancy and sustainability. Also the scope and objectives should be broadened to further increase its impact at the national level.

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 2012-13:

Dr. Rai then went on to make a detailed presentation on the NICEE activities during the year 2012–13 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. However, there was some uncertainty in the usage of funds from this foundation during 2012-13 which he expected to be resolved soon.
- 2.3. NICEE distributed more than 11,000 items of monographs/CDs etc. during the year 2012-13. In addition, ~12,000 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.
- 2.4. Institutional Membership as discussed in the last meeting has been initiated. 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, one Gold and five Silver subscribing members.
- 2.5. Marathi and Hindi translation of *Earthquake Tips* has been completed and uploaded on the NICEE website. Hard copy of the Hindi translation has been printed with the support from BMTPC and distributed during the current year.
- 2.6. 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 fifth time during July 02-07, 2012 in which 60 students from 16 architecture colleges representing 16 cities of India participated.
- 2.7. The annual Literature Review Workshop for PG students of Civil Engineering was held for the eleventh time during June 14-23, 2012. This was attended by 36 participants from 13 colleges across India.

- 2.8. 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 250 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.
- 2.9. Initiatives to propagate “confined masonry” as a building construction typology, considering its good seismic performance were taken a step further. NICEE has brought out two publications on the subject: a monograph by Dr. Svetlana Brzev and a artisans' manual by Ar. Tom Schacher. These publications have been translated into Hindi and printed for distribution.
- 2.10. Seismic safety awareness workshop for building industry professional was held at Hyderabad in collaboration with IIT Madras (Prof. CVR Murty) and IIIT Hyderabad (Dr Paradip Kumar). The workshop was sponsored by Nagarjuna Construction Company Ltd., Hyderabad.
- 2.11. The sales of monographs during the year 2012-13 were ₹ 12.03 Lakh (against ₹ 7.9 Lakh the previous year) with average sale of ₹ 2322/-.
- 2.12. Donations received during the year 2012-13 totaled ~₹ 8.81 Lakh from 65 donors (median donation ₹ 5,000, average donation ₹ 13,569), as compared to 94 donors during the previous year who contributed ₹ 8.86 Lakh. Since inception, NICEE has received ~ ₹ 61 Lakh donations from 491 donors (besides the original sponsors) indicating tremendous appreciation of NICEE's work by the professional community in India and overseas and society at large.
- 2.13. The total spending during the year 2012-13 was ~₹ 38 Lakh (~₹ 37 Lakh the previous year). This was covered by sales (32%), special projects (15%), and donation and interest income (53%).

3. WCEE Conference Proceedings on NICEE website

- 3.1. Prof. Rai appraised the august gathering that the NICEE had undertaken the task of making the papers presented in the fifteen World Conferences on Earthquake Engineering (WCEE) held to-date, available on its website.
- 3.2. Proceedings of the recently concluded the 15WCEE held at Lisbon, Portugal has been uploaded on the website. It was suggested that IAEE should be approached for the announcement of this and also the release of an appropriate amount for the man hours spent by NICEE staff in uploading the papers.

4. Initiatives towards architects

- 4.1. 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.
- 4.2. The “Workshop on Earthquake Resistant Practices for Undergraduate Students of Architecture” was conducted at IIT Kanpur during July 02–07, 2012, in which 60 undergraduate students who had completed six semesters of studies in their respective architecture programmes, from 16 institutes representing 16 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:

- Dr. Mahua Mukherjee, Department of Architecture & Planning, IIT Roorkee, Roorkee
- Dr. Vasudha Gokhale, Dr. B.N. College of Architecture for Women, Pune
- 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 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:

- I Prize** (a) Ms. Andhavarapu Sravani, Andhra University, Visakhapatnam
(b) Ms. Monika Jerath, BKPS College of Architecture, Pune
- II Prize** (a) Ms. Shriya Puranik, Pillai's College of Architecture, New Panvel
(b) Mr. Tanay Nigam, Indian Institute of Technology Kharagpur, Kharagpur
- III Prize** (a) Ms. Sampada Khadilkar, Dr. B.N. College of Architecture, Pune
(b) Mr. Anurag Sapkota, Pillai's College of Architecture, New Panvel

- 4.3 Prof. Mitra said that the number of colleges of architecture in the country has risen beyond 350 and they should all be included in the invite list in order to give a wider publicity to the Architecture workshop. Also, during the workshop the participants may be given a copy of RESIST software which they could use during the workshop and then carry with them as their personal copy. This was accepted and the participants from the next workshop onwards will be given a copy of RESIST. Prof. Rai suggested that preparing a brochure including the usage, advantages and limitations of the software would be more beneficial for its further dissemination.
- 4.4 Prof. Mitra informed about the recent change in the criterion for selection of students in the Architecture Colleges, which allows admission to students who did not have science at 10+2 level. It was thus difficult for them comprehend the concepts of seismic safety while attending the workshop. A necessity was therefore felt to prepare a publication which could explain the relevant basic concepts of the science topics to the participants. Prof. Mitra was suggested to form a team who could work on this project.

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

- 5.1. PG student Literature Review workshop was earlier held for one week and was meant only for MTech students. Duration has now been extended to 10 days and PhD scholars are also being encouraged to attend this program. In the workshop held in June 2012, 36 students had participated.
- 5.2. The committee felt that the workshop should now be managed on self-sustaining basis. Accordingly, the travel support may be withdrawn; however, boarding and lodging of the participants may continue to be provided. A non-refundable registration fee of ₹ 2000 may be charged from the participants.
- 5.3. Prof. Rai informed that the evaluation of the theses for the "Best Thesis Award" was a challenge as it was not possible for the present members to find time for the evaluation purpose. Prof. Jain suggested that since it may not be feasible for the senior faculty to find time for the evaluation of the theses, the younger faculty may be approached for the purpose. Suitable honoraria can be paid to the faculty for the evaluation work. He also suggested the participants of the workshop may be enthused to write papers based on their thesis work and these papers be given due recognition through newsletter of NICEE. Also an award for Outstanding research in Earthquake Engineering can be announced to promote interest in the young generation faculty members working in this field. Prof. Jain suggested that to gauge the utility of such workshops, suitable surveys should be designed with the help of expert professionals in the area. He also expressed concern over declining interest in research in Earthquake Engineering and suggested the conduct of a workshop of younger faculty to discuss obstacles hindering the growth of research activities in this field the steps that should be taken to overcome them.
- 5.4. Open House was attended by eleven participants for a period of five days during December 10–14, 2012, although 27 participants had indicated their intent to attend the same. This was due to last minute backing out of participants due to personal reasons.

- 5.5. The Inter School Quiz which was being held annually since 2009 was a grand success with more than 250 schools from about 50 cities having participated in the quiz till date. Prof. Mitra suggested that in order to make this topic more interesting for the school students developing a graphic mode could be more helpful. Prof. Malik intimated that US Geological Survey (USGS) had developed videos which could be used as the basis for developing such graphic modules and a copy of the CD of the same could be obtained from him. NID Ahmedabad and Design department of IIT Kanpur could be approached to develop graphic modules as student projects.

6. Translation Projects:

- 6.1. 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, Bangla, Burmese, Turkish, etc. is being attempted.
- 6.2. The translation of the two publications on Confined Masonry by Dr. Svetlana Brzev and Ar. Tom Schacher into Hindi language was undertaken by Disaster Mitigation and Management Center (DMMC), Dehradun (project headed by Dr. Piyooch Rautela) and Er. KC Jain of Indore, respectively. These translation works have now been printed and being distributed for wider publicity. The printing of these was partially supported by BMTPC.
- 6.3. It was suggested that attempts should be made to translate these into Nepali, Bangla and Assamese language for its spread in the North Eastern Region of the country.

7. 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.

- 7.1. Facebook page of NICEE and the workshops being held through NICEE should be created to generate a healthy discussion and a wider publicity.
- 7.2. It was suggested to create a corner on the website for the Public Policy statement on seismic safety. Dr. Rai has agreed to prepare it for the NICEE website.
- 7.3. 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. Prof. Mitra is requested to collect the resource material with annotated bibliography, write-up and PPT related to Architect for the website.
- 7.4. The past work on the online structural engineering quiz should be extended so that it can be put on the website, with the aim to help structural engineers test their knowledge of the subject. An appraisal of the advances already made at IIT Gandhinagar should be made before undertaking any steps in this direction.

8. Publicity and Brand Building:

- 8.1. Cdr Ailawadi informed the august gathering that a fair increase in the growth in registrations was being observed. 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. It was suggested that the activities of NICEE should be extended to North East area of the country with IIT Guwahati as the centre considering many of the members of NICEE has joined IIT Guwahati.

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 2013-14.
- 9.2. Prof. Mitra suggested that feasibility to sell NICEE publications through Flipkart and other such websites be explored.

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 2013-14. 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 ₹ 2,000/- . 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.

11. Confined Masonry Initiative

Prof. Rai informed the committee that this building typology could be used effectively in a country like India and thus needed to be propagated further. The translation of the two publications on the topic will surely be of help in this direction and translations keeping in mind the North Eastern Region of the country will be of immense help. It was opined that funding for the project also needs to be looked into simultaneously.

12. Financial Position

- 12.1. The Committee was informed that there was some uncertainty in usage of funds of the Poonam and Prabhu Goel Foundation at IITK towards research and outreach in earthquake engineering. This is expected to be resolved soon.
- 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. The Institutional Members for the year 2012 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
 - (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
- 12.4. It was opined that certificates for individual donors based on the four categories may also be designed. Prof. Mitra was requested to help in this regard.
- 12.5. It was also opined that fund raising for NICEE be pursued more aggressively and all possible avenues be tapped to the full extent possible. Dr. Shrivastava (VD) suggested that funds from UN organisations in India can also be utilized for the support of workshops. Prof. Jain suggested Prof. Rai to speak to Dr. Krishna Vats in this regard and seek his guidance and support.

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. Since attempts of collaboration with organisations such as IRICEN, AICTE, JNNURM, etc. did not yield the desired result in the past, it was decided to drop this point.
- 14.3. 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.

15. Recognition of Individuals

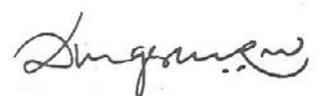
The National Advisory Committee (NAC) in its meeting of August 2013 had decided that “a few individuals who make extra-ordinary contributions to the functioning of NICEE may be mentioned in the Annual Report.” In view of this, the Committee considered a number of persons for such an honourable mention in this year’s Annual Report. The Committee finalized the following persons to be mentioned in the Annual Report for the financial year 2013-14:

- **Ms. Shubhada Gadkar:** for her dedicated efforts towards translation of IITK-BMTPC Earthquake Tips & Ar Tom Schacher’s confined masonry manual into Marathi language
- **Dr. Piyoosh Rautela:** for spearheading the project of translation of Dr. Svetlana Brzev’s monograph on confined masonry into Hindi language
- **Er. KC Jain:** for undertaking translation of Ar. Tom Schacher’s confined masonry manual into Hindi Language.

16. GSDMA Publications Authored by Prof. CVR Murty and others at IIT Madras

It was decided that the soft copies of the publications can be publicised through NICEE website. Also, hard copies can be distributed through NICEE if they are made available through GSDMA.

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
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