

BHUKAMP

The Newsletter of EERC
(For internal Circulation only)

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BHUKAMP



Earthquake Engineering Research Centre
International Institute of Information Technology
Gachibowli, Hyderabad - 500 032, India

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FROM EDITORIAL TEAM...

Firstly we would like to wish you a Very Happy and Prosperous New Year to all Alumni, present members of CASE, EERC and External project students.

There have been 'new beginnings' with Contact as well. We now have two new members on the editorial committee and this is our first edition. We are delighted that our former Editorial team member is still contributing to the magazine and would like to thank her not only for her hard work and enthusiasm over the past one year, but also for her continuing support.

At the same time, Earthquake Engineering Research centre (EERC) is happy to release its third issue of bhukhamp. In this issue, we introduced to Build India-A winter camp, EERC Anniversary, upcoming events and other similar get-togethers apart from other regular columns. Special thanks to all the alumni members who are encouraging our activity and for your valuable suggestions. Members are always encouraged to send their short write-ups. Suggestions on improving bhukhamp are most welcome.

EDITORIAL TEAM:

*Chenna Rajaram,
PV Dilip Kumar,
Bodige Narender,
Anthugari Vimala,
SK Ali Saheb,
& Ramancharla Pradeep Kumar*

RESEARCH UPDATE**RECENT PUBLICATIONS:**

EERC has published over 100 research papers in last five years. Kindly visit website to know the details. Publications during September – December are given below:

1. R. Pradeep Kumar, K. Srinivas and A Vimala: Reconnaissance Survey Report on Fire Accident at Cosmopak Pvt Ltd, Nov 2011.
2. R. Pradeep Kumar co-authored 18 September 2011 Sikkim Earthquake Post-Earthquake Reconnaissance Report: West Bengal. PERT Report of NDMA, GoI.
3. V.R.R. Sandeep Digavalli and Ramancharla Pradeep Kumar: Numerical Simulation of Tsunami Wave Propagation In Indian Ocean, The International Journal of Computational Modeling, International Scientific Press Vol.1, Issue 2, 2011.
4. Dasari Hima Chandan & Ramancharla Pradeep Kumar: Numerical Simulation of Wind Analysis of Highrise Buildings: A Computational Fluid Dynamics Approach, Indian Concrete Institute Journal, Vol. 11, Issue No. 4, 2011.
5. Harinadha Babu Raparla, and Ramancharla Pradeep Kumar: 2D Numerical Modeling of Progressive Collapse During Earthquakes: A Case Study on RC Bare Frame, International Journal of Earth sciences and Engineering, Vol. 4, No. 6 SPL, 2011.
6. Praneetha Surapaneni and Ramancharla Pradeep Kumar: Assessment of Vulnerability of Installations Near Gujarat Coast vis-a-vis Disturbances, International Journal of Earth sciences and Engineering, Vol. 4, Issue No. 6 SPL, October 2011, pp. 656-658.
7. Akhila Manne, Shipla chowdary and Neelima Satyam D (2011)"Estimation of Site Effects for Vijayawada city" " Indian geotechnical Conference, 15-17 December 2011.
8. Bodige Narendra, Raghavender and Ramancharla Pradeep Kumar: Pushover Analysis of RC Building: A Comparison between Micro and Macro Numerical Modeling, Proceedings, Advances in Seismic Design of Structures, Systems and Components of Nuclear Facilities (SMiRT), 14-15 Nov 2011, Mumbai, India. (Keynote Paper).
9. Prasanna Kumar and Neelima satyam (2011)"Vulnerability assessment of Jamma Masjid, New Delhi: A case study" 2011 World Congress on Advances in Structural Engineering and Mechanics (ASEM11plus), 18-23 September, 2011 in Seoul, Korea, Paper Id: SM120_104.
10. Saranya and Neelima Satyam D (2011) "Soil Structure Interaction of High Rise Structure Supported by Pile Foundation " Indian geotechnical Conference, 15-17 December 2011, F-005.
11. Saranya P and Neelima Satyam D (2011) "Dynamic Analysis of Pile Soil Interaction" International Symposium on Advances in Ground Technology and Geo-Information (IS-AGTG), 1-2 Dec 2011, Singapore.

12. Vijaya lakshmi and Neelima Satyam D (2011)" Numerical Modeling of Rock Slopes In Siwalik Hills Near Manali Region: A Case Study" Indian geotechnical Conference, 15-17 December 2011, Paper No: N-006.
13. Vijaya lakshmi R and Neelima Satyam D (2011)"Finite Element Analysis of Tunnels in Siwalik Hills of Himachal Pradesh using PLAXIS 3D" International Conference on Geotechnics for sustainable development, 6-7 Oct 2011, Hanoi, Vietnam.

FACULTY CORNER

1. Notable Achievements
2. Technical Lectures
3. Field Visits

NOTABLE ACHIEVEMENTS:

Dr. Ramancharla Pradeep Kumar has received Walkers International Appreciation award. This award was in recognition of services offered towards spreading human values across the state of Andhra Pradesh.

Dr. Ramancharla Pradeep Kumar became a member of National Guidelines on Disaster Risk Reduction for Bank Financed Telecommunication Infrastructure. Committee was headed by Mr. T. Nanda Kumar, Member NDMA.

Dr. Ramancharla Pradeep Kumar has been nominated as Member of NDMA's Expert Committee on Crowd Management at Religious Places

Dr. Ramancharla Pradeep Kumar became a member of Post Evaluation Reconnaissance Team (PERT) of NDMA, GoI.

Dr. Neelima Satyam has received Young Scientist Research Award, BRNS, Department of Atomic Energy, India 2011.

Dr. Neelima Satyam has received Young Engineers Award in Civil Engineering discipline from The Institution of Engineers (India), Kolkata, India 2011.

TECHNICAL LECTURES:

By Dr. Ramancharla Pradeep Kumar

19 Oct 2011: Community based disaster management, NIRD. (15 Participants from SAARC Countries)

19 Oct 2011: Earthquake resistant design of structures, MCR-HRD. (9 Participants)

16 Sep 2011 (1 day): One-day Workshop on Leveraging ICT Applications with Human Values. 30 people attended (along with NIRD).

9 Sep 2011: Role of Education, Vivekananda Institute of Human Excellence. 400 teachers attended.

By Dr. Neelima Satyam

20 Dec 2011: Behavior of unsaturated soils, IIIT-H (Dr Siva kumar)

14 Dec 2011: Keynote lecture on Liquefaction Assessment of two cities in India using SPT and Vs methods in 1st Indo Japan workshop on Geotechnical earthquake Engineering, Kochi.

8-10 Dec 2011: Short Course on Geotechnical Aspects of Earthquake Engineering Organized by Earthquake Engineering Research Centre, IIIT Hyderabad.

9 Sep 2011: Rock mass characterization for designers, IIIT-H (Prof. T.Ramamurthy)

6 – 8 Sep 2011: Earthquakes: Causes, Effects and Mitigation measures during the training program on Earthquake risk mitigation and management at Dr. MCR Human Resource Development Institute of AP, Govt. of AP.

By Mr. Dilip Kumar

30 Nov 2011: Earthquake Preparedness for school principals at Navodaya School.

By Mr. Chenna Rajaram

14 Dec 2011: Earthquake Preparedness for school principals and DEO's at Navodaya School.

21 Sep 2011: Earthquake Preparedness for school principals at Navodaya School.

TRAVEL/FIELD TRIPS:

Dr. Ramancharla Pradeep Kumar attended a meeting on safety of nuclear reactor in Fukushima, Japan.

Dr. Ramancharla Pradeep Kumar attended BIS review meeting on 23-24th Nov 2011.

Dr. Ramancharla Pradeep Kumar attended the conference on Advances in seismic design of structures, systems and components of nuclear facilities on 14-15th Nov 2011.

Dr. Ramancharla Pradeep Kumar has done reconnaissance survey for Sikkim earthquake from 10 – 13th Nov 2011.

Dr. Ramancharla Pradeep Kumar has attended 10th International symposium on new technologies for urban safety of mega cities in Asia, Chiang Mai, Thailand on 12th -14th Oct 2011.

Dr. Ramancharla Pradeep Kumar, Mr. Narender, Mr. Hima Chandan, Mr. Raju Sangam and Mr. Krishna Babu has visited Ramappa temple on 28th Sep 2011 to test the temple with building vibration sensors.

Dr. Ramancharla Pradeep Kumar attended a meeting at NIRD on 16th Sep 2011.

Dr. Neelima Satyam attended Indian Geotechnical conference IGC 2011, Kochi on 14th Dec 2011.

NEWS CORNER

RESEARCH SCHOLARS IN NEWS:

Mr. Harinadha Babu, External Research Scholar at EERC successfully defended his thesis "Numerical Simulation of Progressive Collapse of RC Buildings Subjected to Earthquake and Blast Loads" submitted to Department of Civil Engineering, Andhra University. Thesis Supervisor: R. Pradeep Kumar.

Mr. Dilip Kumar and Mr. Chenna Rajaram have attended a national seminar on flood and cyclone from 10th - 11th Nov.2011 at MCRHRD-Hyderabad.

Convocation 2011: Our institute has celebrated 10th convocation on 5th Nov.2011. 343 students have received degrees on this day. From our CASE, 11 students from M.Tech and 1 from M.S by Research have received.



Bhukamp congratulates all the above students.

TRAVEL/FIELD VISITS:

On 28th to 30th September 2011, visited Ramappa temple, for studying the Effect of Near Site Tunnel Blasts of Devadula Project on Ramappa Temple using building vibration sensors. Teams of members are Dr. Ramancharla Pradeep Kumar, Bodige Narender, Dasari Hima chandan, Sangam Raju and Krishan Babu.



Ramappa Temple

On 2nd to 4th November 2011, Field visit in Nanded city for the purpose of identify the Building typology and also well as maximum number of stores which are existed for different type of buildings. Teams of members are Bodige Narender, Dasari Hima chandan, Sangam Raju and Krishan Babu.



Nanded City



Chandigarh City

On 19th to 21st December 2011, Field visit in Chandigarh city for the purpose of identify the Building typology and also identify the building in which Building vibration sensor will be installed. Teams of members are Dr. Ramancharla Pradeep Kumar, Bodige Narender, Dasari Hima chandan, Sangam Raju.



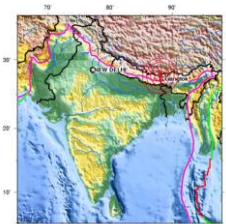
Japan International Cooperation Agency

EARTHQUAKE NEWS

Magnitude 6.9 - INDIA-NEPAL BORDER REGION

2011 September 18 12:40:48 UTC

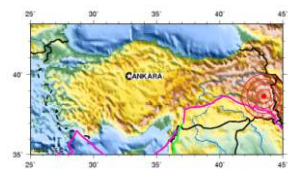
The September 18, 2011 India-Nepal border region earthquake occurred near the boundary between the India and Eurasia plates, in the mountainous region of northeast India near the Nepalese boarder. The convergence between these two plates has resulted in the uplift of the Himalayas, the world's tallest mountain range. The preliminary focal mechanism of the earthquake suggests strike slip faulting, and thus an intraplate source within the upper Eurasian plate or the underlying India plate, rather than occurring on the thrust interface plate boundary between the two. This region has experienced relatively moderate seismicity in the past, with 18 earthquakes of M 5 or greater over the past 35 years within 100 km of the epicenter of the September 18 event. The largest of these was a M 6.1 earthquake in November of 1980, 75 km to the southeast. At least 94 people killed, several injured and 5,000 displaced and several thousand buildings and many roads and bridges destroyed or damaged in the Sikkim-Bihar-West Bengal area (**Source: USGS**)



Magnitude 7.1 - EASTERN TURKEY

2011 October 23 10:41:21 UTC

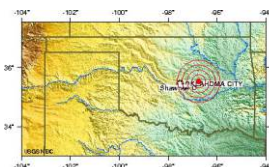
Turkey is a tectonically active country that experiences frequent destructive earthquakes. It is the collision of the Arabian and Eurasian plates; at the latitude of this event, the Arabian plate converges with Eurasia in a north direction at a rate of approximately 24 mm/yr. These large, translational fault systems extend across much of central and western Turkey and accommodate the western motion of the Anatolian block as it is being squeezed by the converging Arabian and Eurasian plates. The focal mechanism of this earthquake is consistent with oblique-thrust faulting similar to mapped faults in the region. At least 534 people killed 2,300 injured and 14,618 buildings and homes destroyed or damaged in the Ercis-Tabanlı-Van area. (**Source: USGS**)



Magnitude 5.6 - OKLAHOMA

2011 November 06 03:53:10 UTC

The magnitude 4.7 and 5.6 earthquakes that occurred on November 5, 2011, were situated in a region located about 50 km east of Oklahoma City, Oklahoma. In 2009 the rate of seismicity continued to climb, with nearly 50 earthquakes recorded--many big enough to be felt. In 2010 this activity continued. The magnitude 4.7 and 5.6 earthquakes of November 5, 2011, are the largest events recorded during this period of increased seismicity. Additionally, the M5.6 quake is the largest quake to hit Oklahoma in modern times. In general, it is very difficult to correlate earthquakes to specific faults in the region and in eastern North America. From the location of the earthquake and the focal mechanism it is possible that this earthquake occurred on the Wilzetta fault. The Wilzetta fault is one of a series of small faults formed in the Pennsylvanian Epoch (approx. 300 million year ago) during the intraplate deformation known as the Ancestral Rocky Mountains. The relationship between the recent earthquakes and this older structure is still unknown and requires further investigation. (**Source: USGS**)



CASE NEWS**BUILD INDIA (WINTER SCHOOL CAMP):**

Build India-A Winter School camp was organized by EERC, IIITH for 14 days from 9th Dec to 22nd Dec. The main theme of winter school camp is to encourage students all over India particularly interested in research to get an idea about research.

A lot of effort was put in by the EERC to orchestrate this winter school camp. Many students all over India sent their abstracts on the topic of their choice, where 10 papers were selected by our team of researchers and professors. Students from JNTU Anantapur, KLU, VJIT Mumbai, PVP Siddhartha college of engineering, Amrutha university, SRCCEM etc.

All the ten teams were guided by PhD Scholars and M Tech mentors and they spent all the 14 days developing their paper. Every PhD scholar gave their presentations in the topic of their research. The students were inspired by the three presentations given by Pradeep Kumar Ramacharla where each of the presentation is a perfect blend of technical element and human values. On the last day the students gave their presentations of their work done for previous 13 days which were observed thoroughly by our team of PhD scholars. All the students said that they were a better person than they were after spending 14 days here and they insisted to continue this Build India. Today's students are tomorrow's pillars of nation. To inspire the students on values apart from technical education is what Build India all about.

Lectures have given by researchers.

- 9 Dec 2011: Numerical Modeling of Plates (Mr. P V Dilip Kumar)
- 10 Dec 2011: General Concepts on Earthquake Resistant Design (Mrs. A Vimala)
- 12 Dec 2011: (Dr. Ramacharla Pradeep Kumar)
- 13 Dec 2011: Vulnerability Assessment of Buildings (Mr. B Narender)
- 14 Dec 2011: Seismic Analysis of Dams (Mr. K Jagan Mohan)
- 15 Dec 2011: (Dr. Ramacharla Pradeep Kumar)
- 16 Dec 2011: Moment Curvature Relationship (Mr. D Hima Chandan)
- 17 Dec 2011: (Dr. Ramacharla Pradeep Kumar)
- 19 Dec 2011: Pounding of Buildings (Mr. C Rajaram)
- 20 Dec 2011: Behavior of Beam-Column Joint (Ms. D Sreevani)



UPCOMING EVENTS:**1. Build India Summer**

This program is mainly designed for undergraduate civil engineering students.

Duration: 2 months (mid of May to July)

Eligibility: 3rd & 4th year UG students.

Objective: Exposure to various research topics and working in one of them.

2. Short course on "Earthquake Resistant Design of Buildings"

Duration: 3 days (15 - 17 March 2012)

Timings: 09:30 - 17:30

Eligibility: 3rd & 4th year UG students.

Registration Fee: Rs. 1000/-

For more details: Contact

Dilip Kumar PV - dilipkumarpv@research.iiit.ac.in

Chenna Rajaram - rajaram.chenna@research.iiit.ac.in

RECENT EVENTS:**1. EERC Anniversary Day Celebrations (3rd Dec. 2011)**

Earthquake Engineering Research Centre has completed 9 years. Now centre is entered into 10th year. On this occasion we planned to gather all EERC members at one place including PG-1 and PG-2 students and alumni of EERC also. The function was started at 12:00 noon. We together cut the cake by all EERC members. Each individual expressed and shared their views and experiences during their journey in the centre. Around 45 members were attended to this event. Finally the event was ended with lunch.

**2. Engineer's Day Celebrations (15th Sep. 2011)**

Researchers, Staff from EERC have given a small token of gift to Pradeep Sir. He has talked about various projects running in centre and chance getting future major projects to the centre. Also talked about future prospects of Ph.D students and importance of research in the country.

**3. Teacher's Day Celebrations (5th Sep. 2011)**

This year Teachers Day was very special to all the members of CASE, EERC and project students, Venkateshwarulu Sir and Neelima Madam have started with the cake cutting followed by Venkateshwarulu sir's speech on.



PGEE2012, IIIT, HYDERABAD:

Applications for admission into MTech, MS, PhD, MSc, PG-Diploma programs To apply visit:
<http://www.iiit.ac.in/admissions/pgee>

- * Date of Entrance Examination: 15 April 2012 (10 AM to 1 PM)
- * Date of Opening PGEE Portal: 1 February 2012
- * Last Date for the Submission of Applications through the PGEE Portal : 22 March 2012
- * Last Date for the receipt of Application fees at IIIT, Hyderabad : 24 March 2012
- * Admit Cards will be Available for download in PDF format : 1 April 2012

M.Tech in Computer Aided Structural Engineering (CASE)

Eligibility for M.Tech. Program: B.E./B.Tech in Civil Engineering. For more details about CASE program visit: <http://www.iiit.ac.in/academics/programmes/postgraduate/mtechcase>

CONTACT INFORMATION**Editor**

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