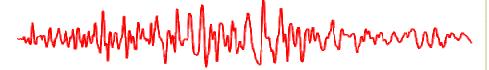
BHUKAMP

The Newsletter of EERC (For internal Circulation only)



Vol. 2, No. 2&3, May-Dec 2012





Earthquake Engineering Research Centre International Institute of Information Technology IIIT Hyderabad, Gachibowli, Hyderabad – 500 032

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From Editorial Team

In this issue, apart from regular news, we presented about short courses, conducted by EERC. Researchers alone conducted three short courses in the year 2012. New students joined in CASE in the academic year 2012-14. IIIT-H celebrated 11th convocation during November 2012. Currently, many outreach activities are running in the centre like short courses, summer camps, and celebration on the occasion of teacher's day, engineer's day and tours. Members are 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, Akhila Manne & Ramancharla Pradeep Kumar





RESEARCH UPDATE

Recent Publications:

EERC has published around 110 research papers in last 5 years. Kindly visit website to know the details. Publications during May – December are given below:

- 1. Ramancharla Pradeep Kumar et.al (2012)., "18 September 2011 Sikkim Earthquake: The Mw 6.9 Sikkim-Nepal Border Earthquake", EERI Special Earthquake Report.
- Chenna Rajaram and Ramancharla Pradeep Kumar (2012)., "Pounding Between Adjacent Buildings: Comparison of Codal Provisions", Indian Concrete Journal, Vol.86, No.8, pp-49-59.
- 3. Harinadha Babu Raparla, and Ramancharla Pradeep Kumar (2012)., "Nonlinear Static Large Deformation Analysis of Bare Frames Subjected to Lateral Loads", Indian Concrete Institute Journal, Vol. 13, No. 3, pp.21-27.
- 4. Abhishake Munipala, Venkata Dilip Kumar Pasupuleti and Ramancharla Pradeep Kumar (2012)., "Structural Dynamics Virtual Laboratory: A Learning Tool Kit for Young Engineers and Practicing Professionals", Proceeding of 15th World Conference on Earthquake Engineering (15WCEE), 24th 28th September 2012, Lisbon, Portugal.
- Ahmed Hussain and Ramancharla Pradeep Kumar (2012)., "Influence of Dip Angle On The Near fault Ground Motion Due To Reverse and Normal Surface Faulting", Proceeding of 15th World Conference on Earthquake Engineering (15WCEE), 24th - 28th September 2012, Lisbon, Portugal.
- 6. Akhila Manne, D.Neelima Satyam (2012)., "Seismic site effect estimation using microtremor studies in Vijayawada", Proceeding of Indian Geotechnical Conference, 13th 15th December, 2012, New Delhi, India, pp. 1051-1054.
- 7. Akhila Manne, Chandan Ghosh and Neelima Satyam D (2012)., "Detailed Ground Response Analysis for Kolkata City, India" Proceeding of 15th World Conference on Earthquake Engineering (15WCEE), 24th 28th September 2012, Lisbon, Portugal.
- 8. Akhila Manne, Uday Balthy and Neelima Satyam D (2012)., "A Microtremor HVSR study of the seismic site effects in the region of Vijayawada", Proceedings of 2nd International Conference on Performance-Based Design in Earthquake Geotechnical Engineering (SICPBE), Taormina, Italy.
- Anthugari Vimala and Ramancharla Pradeep Kumar (2012)., "Displacement Based Damage Estimation of RC Bare Frame Subjected to Earthquake Loads: A Case Study on 4 Storey Building", Proceeding of 15th World Conference on Earthquake Engineering (15WCEE), 24th - 28th September 2012, Lisbon, Portugal.
- 10. Archanaa Dongre and Ramancharla Pradeep Kumar (2012)., "Inelastic Response of RC Moment Resisting Frames with URM Infills", Proceeding of 15th World Conference on Earthquake Engineering (15WCEE), 24th 28th September 2012, Lisbon, Portugal.

- 11. Archanaa Dongre and Ramancharla Pradeep Kumar (2012)., "Comparative Study of Inelastic Behavior of RC Frame With & Without Brick Infill Using Applied Element Method", Proceeding of ISET Golden Jubilee Symposium on Earthquake Engineering, October 2012, IIT-Roorkee.
- 12. Chenna Rajaram and Ramancharla Pradeep Kumar (2012)., "Study on Impact Between Adjacent Buildings: Comparison of Codal Provisions", Proceeding of 15th World Conference on Earthquake Engineering (15WCEE), 24th 28th September 2012, Lisbon, Portugal.
- 13. Ehsan Vafaeihosseini, Azadeh Sagheb and Ramancharla Pradeep Kumar (2012)., "Computational Fluid Dynamics Approach for Wind Analysis of Highrise Buildings", A3C-12; Awards, Convention & Consultants Colloquium, 11th 12th Jan 2013, Mangalore, India.
- 14. Ehsan Vafaeihosseini, Azadeh Sagheb and Ramancharla Pradeep Kumar (2012)., "Modeling of Highrise Building using Computational Fluid Dynamics Approach: A Case Study on Design of 38-Storey Highrise Building", Proceedings of 4th International Congress on Computational Mechanics and Simulation, IIT Hyderabad.
- 15. Murty CVR, Durgesh Rai, Hari Kumar, Keya Mitra, Amit K Bose, Hemanth B Koushik, Aravind Jaiswal and Ramancharla Pradeep Kumar (2012)., "A Methodology for documenting Housing Typologies in the Moderate-Severe Seismic Zones", Proceeding of 15th World Conference on Earthquake Engineering (15WCEE), 24th 28th September 2012, Lisbon, Portugal.
- 16. Narender Bodige, Raghavender Baroda and Ramancharla Pradeep Kumar (2012)., "Assessment of Capacity of Existing Building Through Nonlinear Static Pushover Analysis A Comparison between Micro and Macro Modeling", Proceeding of Advances in Earth Sciences, Structural, Geotechnical and Earthquake Engineering (AESG2E), October 2012, Hyderabad.
- 17. Narender Bodige and Ramancharla Pradeep Kumar (2012)., "Pushover Analysis of RC Bare Frame: Performance Comparison between Ductile and Non-ductile detailing", Proceeding of Urban Safety of Mega Cities in Asia (USMCA), October 2012, Mangolia.
- 18. Neelima Satyam D and Akhila Manne (2012)., "Design of Support System For Excavation in Black Cotton Soils in Guntur, India", Proceeding of 2nd International Conference on Geotechnique, Construction, Materials & Environment, 14th 15th November, 2012, Kuala Lumpur, Malaysia.
- 19. Ramancharla Pradeep Kumar (2012)., "Indo-Japan 60 years relationships, An academic perspective", FAPCCI & AOTS Centre, Hyderabad. (Keynote Lecture)
- 20. Ramancharla Pradeep Kumar (2012)., "Housing Issues in Andhra Pradesh viz-a-viz Natural Disasters", Workshop on World Habitat Day, AP State Housing Corporation Limited. (Keynote Lecture)
- 21. Ramancharla Pradeep Kumar (2012)., "Mainstreaming Disaster Risk Reduction through Development Programs: Education & Training", Workshop on DRR and Status of Implementation, NIRD Hyderabad.

- 22. Sharma IV and Neelima Satyam D (2012)., "Numerical Analysis of Tunnels in Jointed Rock Mass of Siwalik Hills" Proceeding of Indian Geotechnical Conference, 13th 15th December, 2012, New Delhi, India, pp. 479-482.
- 23. Subba Rao Mukunda and Neelima Satyam D (2012)., "Support system design of power house and transformer caverns in Dickchu Hydropower Project, Sikkim" Proceeding of Indian Geotechnical Conference, 13th 15th December, 2012, New Delhi, India.
- 24. Sushma Pulikanti and Ramancharla Pradeep Kumar (2012)., "Numerical Modeling of Interface Between Soil and Pile to Account for Loss of Contact during Seismic Excitation", Proceeding of 15th World Conference on Earthquake Engineering (15WCEE), 24th 28th September 2012, Lisbon, Portugal.
- 25. Uday Kumar B and Neelima Satyam D (2012) "GPR Survey for Utility Mapping at Two Stations of Hyderabad Metro" Proceeding of Indian Geotechnical Conference, 1^{3th} 1^{5th} December, 2012, New Delhi, India, pp. 440-443.
- 26. Vasudeo Chaudhary, Venkata Dilip Kumar Pasupuleti and Ramancharla Pradeep Kumar (2012)., "3D Nonlinear Modeling of Buried Continuous Pipeline Subjected to Ground Compression", Proceeding of 15th World Conference on Earthquake Engineering (15WCEE), 24th 28th September 2012, Lisbon, Portugal.

FACULTY CORNER

- 1. Technical Lectures
- 2. Events Organized
- 3. Travel/Field Visits
- 4. Achievements/Awards
- 5. Updates

Technical Lectures:

| Date | Name | Topic |
|---------------------------|-------------------|--|
| 10 th May 2012 | Dr. Pradeep Kumar | Community Service of Rotary Club Volunteers During Disasters, Hyderabad |
| 31 st May 2012 | Dr. Pradeep Kumar | Earthquake Disasters in India: Where Do We Stand? INSPIRE, Hyderabad |
| 31 st May 2012 | Dr. Pradeep Kumar | Strengthening of Cyclone Shelters |
| 4 th Jun 2012 | Dr. Pradeep Kumar | Earthquake Disasters in AP: Precautionary Measures, MCRHRD, Hyderabad |
| 29 th Jun 2012 | Dr. Pradeep Kumar | Earthquake and Tsunami Disasters in AP, APARD, Hyderabad |

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| 31 st Jun 2012 | Dr. Pradeep Kumar | Earthquake and Tsunami Disasters, Community Participation, SAARC Countries, NIRD, Hyderabad |
|--|--------------------|--|
| 1 st Sep 2012 | Dr. Pradeep Kumar | Earthquake Disasters in India: Where do we stand?, JNTU Faculty Development Program, CMRIT, Hyderabad |
| 1 st – 2 nd Oct 2012 | Dr. Neelima Satyam | Rock Mass Classification and Rock Slope Stability Analysis, Andhra University, Vizag |
| 5 th Oct 2012 | Dr. Neelima Satyam | Site Investigation and Significance of Site Characterization, APARD, Hyderabad |
| 12 th Oct 2012 | Dr. Neelima Satyam | Women in Civil Engineering |
| 6 th Nov 2012 | Dr. Pradeep Kumar | Disaster Resistant Constructions. MCRHRD, Hyderabad |
| 22 nd Nov 2012 | Dr. Pradeep Kumar | Building Collapse during disasters. MCR HRD, Hyderabad |
| 4 th Dec 2012 | Dr. Neelima Satyam | Significance of Geotechnical Investigations for Infrastructure Projects |
| 4 th Dec 2012 | Dr. Neelima Satyam | Importance of Geotechnical Investigations for Civil engineering Structures for Practicing Civil Engineers, Hyderabad |

Events Organized:

- Dr. Ramancharla Pradeep Kumar, Mr. Dilip Kumar, Mr. Chenna Rajaram, Mr. Bodige Narender, Mr. Hima Chandan and Mrs. Anthugari Vimala conducted short course on "Earthquake Resistant Design of Buildings" organized by Earthquake Engineering Research Centre, IIIT Hyderabad on 3rd - 7th December 2012.
- 2. Dr. Neelima Satyam conducted short course on "Rock Mechanics and Underground Structures" organized by Earthquake Engineering Research Centre, IIIT Hyderabad on 23rd 25th August 2012.
- 3. Dr. Ramancharla Pradeep Kumar, Mr. Dilip Kumar, Mr. Chenna Rajaram, Mr. Bodige Narender, Mr. Hima Chandan and Mrs. Anthugari Vimala conducted short course on "Earthquake Resistant Design of Buildings" organized by Earthquake Engineering Research Centre, IIIT Hyderabad on 16th 20th July 2012.

Travel/Field trips:

- 1. Dr. Ramancharla Pradeep Kumar has visited Lisbon, Portugal during 24th 28th September 2012 as a part of Indian delegate for 15th World Conference on Earthquake Engineering. He also presented around 8 papers during the conference.
- 2. Dr. Ramancharla Pradeep Kumar has visited Costa Rica, USA during $19^{th} 22^{nd}$ June 2012 as 19^{th} Plenary Committee member of ISOTC-71_from our country, organized by ACI Costa

Rica Chapter. He was nominated by Bureau of Indian Standards to attend ISO meeting in Costa Rica. He is the youngest person who nominated from India. He is a panel member of BIS-CED 2 sectional committee of IS: 456 and IS: 1343.

- 3. Dr. Ramancharla Pradeep Kumar has visited Mangolia during October 2012 to attend conference on Urban Safety of Mega Cities in Asia (USMCA). He presented paper on "Pushover Analysis of RC Bare Frame: Performance Comparison between Ductile and Nonductile Detailing". He visited Mangolia to bring the conference to India. Hopefully, the next conference will be held in Hyderabad, India. During Mangolia trip, he visited Hong-Kong also.
- 4. Dr. Ramancharla Pradeep Kumar has visited University of Tokyo, Japan during November 2012 as a part of DISANET project.
- 5. Dr. Ramancharla Pradeep Kumar has visited Chandigarh during 29th October 2012 as a part of DISANET project. He attended workshop on Natural Disaster and Need for Capacity Building through Awareness Programs.

Achievements/Awards

- 1. Dr. Neelima Satyam has received Young Woman Engineer award from INWES-International Network of Women Engineers & Scientists, 2012.
- 2. Dr. Neelima Satyam has got JSPS Research Fellow from University of Tokyo, Japan, 2012-2013.

Updates:

- Dr. Neelima Satyam was a reviewer for Seventh International Conference on 'Case Histories In Geotechnical Engineering and symposium in honor of Clyde baker', Wheeling, Chicago, 29th April – 4th May, 2012.
- 2. Dr. Neelima Satyam was started Lab for Geotechnical Engineering in the month of May, 2012. Laboratory is equipped with facilities to carry out many types of tests on soils. These apparatus include CBR, Specific gravity, Moisture content, Sieve analysis, Atterberg's limits (liquid limit, plastic limit & shrinkage limit), Compaction test etc. Microtremor apparatus for the evaluation of dominant frequency of earth/structures is also available. Resources related to Geotechnical engineering, books, information on upcoming conferences, geotechnical equipment, newsletters in this field etc are accessible in the lab.
- 3. Dr. Neelima Satyam has elected as one of the reviewer for Earthquake Engineering and Engineering Vibration, Springer Since June 2012.
- 4. Dr. Neelima Satyam was a rapportier for National conference on Geo-synthetics for Infrastructure, Osmania University, $25^{th} 26^{th}$ August 2012.
- 5. Dr. Neelima Satyam was a co-ordinator for technical lecture series in the area of Geotechnical Engineering for the year 2011-2012.



- 6. Dr. Ramancharla Pradeep Kumar has elected as one of the reviewer for 15th World Conference on Earthquake Engineering (15WCEE), held 24th 28th September 2012 at Lisbon. Portugal.
- 7. Dr. Neelima Satyam was one of the organizing Committee members for Symposium on Geotechnical Practices GeoPractices-2012, 10th Nov2012, JNTU Hyderabad.
- 8. Dr. Neelima Satyam has elected as one of the reviewer for American Journal of Scientific and Industrial Research (AJSIR) published by ScienceHub, USA.
- 9. Dr. Ramancharla Pradeep Kumar has elected as member of editorial team of ACCE(I).
- 10. Dr. Ramancharla Pradeep Kumar has elected as member of board of studies, JNTU.
- 11. Dr. Ramancharla Pradeep Kumar has elected as expert panel member for academic programs of builders.
- 12. Dr. Ramancharla Pradeep Kumar is one of the reviewers for PhD thesis for dept. of civil engineering.
- 13. Dr. Ramancharla Pradeep Kumar is one of the reviewers for PhD thesis for dept. of Geophysics, Osmania University.
- 14. Dr. Ramancharla Pradeep Kumar is one of the reviewers for MoES project proposal on "Natural Basalt Rock Fibre Concrete"

NEWS CORNER

Research Scholars in News:

- 1. Mrs.Pallavi Ravishankar who previously worked as Research Fellow has joined M.S. by Research program.
- 2. Mr. Anne Vishal Chand joined Earthquake Engineering Research Centre (EERC) in May 2012 as project assistant. Currently he is working on "Indian Housing" project.
- 3. Mr. Pulkit D. Veloni joined Earthquake Engineering Research Centre (EERC) in July 2012 as project assistant. Currently he is working on "Indian Housing" project.
- 4. Ms. Neelima Patanala has joined M.S. by Research program in the month of August.
- 5. Mr. Swajit Singh Goud has joined PhD program in the month of August.
- 6. Mr. Ajay Kumar Sreerama has joined PhD program in the month of September.
- 7. Mr. Jagan Mohan has submitted his MS thesis in the month of December.
- 8. Mrs. Vrushali Kamalakar has submitted her MS thesis in the month of December.
- 9. Mrs. Archanaa Dongre has submitted her PhD thesis in the month of December.
- 10. Ms. Akhila Manne has submitted her MS thesis in the month of December.
- 11. Mr. Mohammed Ahmed Hussain has successfully defended his PhD on "Numerical Approach to Model Near Field Fault Normal Ground Motions in Reverse Fault Scenario" on 18th December 2012. He is **first PhD from EERC**.



Congratulates all the above students.

Outreach Activities

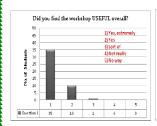
1. Short Course on "Earthquake Resistant Design of Buildings, 16th – 20th July 2012"

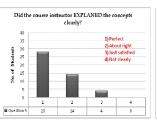
This course mainly concentrates on the basics of understanding earthquake forces on to the structures. It gives reasons behind damages of buildings taken place in the past earthquakes because of the construction practices, implementation and designing.

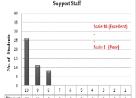
Around 46 students had participated in short course. The course takes a flight understanding basic seismology, understanding vibration of Single degree of freedom, multi degree of freedom, calculation

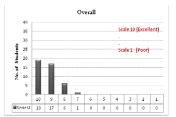


of lateral forces, IS1893:2002 design code procedure, ductile detailing, SAP analysis of structure, practice session on complete analysis & design of G+3 structures and importantly role of civil engineer in the society. Apart from these the course also gives insight of present research context in EERC, IIIT-Hyderabad. Also we had interacted with the students during breaks. Some of the feedback is listed below:









2. Short course on "Rock Mechanics and underground structures, 23rd - 25th August 2012"

The momentum for conducting the short course on a distinct field like 'Rock mechanics' was from the requests of the participants of previous short course. The 3-day short course consisted of lectures by Prof. Ramamurthy, Prof. K.S.Rao, Prof. Madhav, Dr. Neelima Satyam. Prof. Ramamurthy and Prof. K.S.Rao from IIT Delhi are eminent in the field of



Geotechnical Engineering. There were about 34 participants both from structural and Geotechnical field. The participants were from North eastern and western states inclusive of those from Andhra Pradesh.

Prof. Madhav form IIT Hyderabad shared some insights with a special invited lecture on the first day. In the first two days the concepts of Rock Mechanics were dealt. On the third day case histories were discussed which elated the quality of discussions during the short course. Each day had lectures followed by discussion sessions to interact with the participants and learn about the current problems faced by the practitioners. The course was a success accounting from the feedback from the participants and also the mails received after the course.

3. Short Course on "Earthquake Resistant Design of Buildings, 3rd – 7th December 2012"

Around 35 students had participated in short course. The course takes flight seismology, understanding basic understanding vibration of single degree of freedom, multi degree of freedom, calculation of lateral forces, IS1893:2002 design code procedure, ductile detailing, SAP analysis of structure, practice session on complete analysis & design of G+3 structures and importantly role of civil engineer in the society. Also we had interacted with the students during breaks.



4. School Awareness Program for 10 Schools in Nanded city

The team of EERC (Mr. Narender, Mr. Hima chandan, Mr. Raju Sangam, and Mr. Krishna Babu) has conducted a school awareness program in Nanded city for school children of 9th and 10th. Around 500 school children have attended this program. The objective of the program is to spread awareness of earthquakes to school children. Our team has taught about earthquake tips, demonstration of models and posters to school children and teachers in Peoples high school, Shivaji high school and Cambridge high school.







Students Travel/Field Visits:

- 1. Mr. Dilip Kumar, Mr. Chenna Rajaram and Mrs. Vimala have attended "15th World Conference on Earthquake Engineering" during 24th 28th September 2012 at Lisbon, Portugal. It was hosted by the Portuguese Society for Earthquake Engineering. They have also published three papers during the conference. (For more details refer Publications field, about conference: http://15wcee.org/). They have also attended workshop prior to 15WCEE, called Lisbon in Motion (LiMo).
- 2. Ms. Akhila Manne has attended "2nd International Conference on Performance-Based Design in Earthquake Geotechnical Engineering" during 28th 30th May 2012 at Taormina in Sicily, Italy. It was organized by Technical Committee of Geotechnical Earthquake Engineering. She has also published one paper on "A Microtremor HVSR study of the seismic site effects in the region of Vijayawada".
- 3. Mr. Narender and Mr. Hima Chandan visited Chandigarh on $20^{th} 26^{th}$ July 2012 to install vibration sensors in one of the buildings at Punjab University. They have collected building data and strength of structural members. The meeting was started by introductory note from Prof. Chaddha, director of NGRI, head of Indian team for DISANET project, followed by Prof. Koketsu Suzuki head of Japanese team for DISANET project. Prof. Takano, Prof. Javed Malik and Prof. Pradeep Kumar Ramancharla gave presentations on various aspects and importance of the project. Again they visited Chandigarh on $25^{th} 30^{th}$ October 2012, to install the building vibration sensors. From building vibration sensors, one can measure ground acceleration during earthquake and structural amplification.









EARTHQUAKE NEWS

Magnitude 6.4 - NORTHWESTERN IRAN Earthquake

2012 August 11 12:23:17 UTC

The August 11, 2012 M 6.4 and M 6.3 earthquakes in northwestern Iran occurred as a result of oblique strike-slip faulting in the shallow crust of the Eurasia plate, approximately 300 km east of the plate boundary between the Eurasia and Arabia plates. Focal mechanisms, describing the style of faulting for the earthquakes, suggest slip on either fault planes striking roughly east-west, or those striking roughly north-south. On a broad scale, the seismotectonics of this region are controlled by the collision of the Arabia and



Eurasia plates; at the latitude of the earthquakes, the Arabia plate moves almost due north with

respect to the Eurasia plate at a rate of approximately 26 mm/yr. To the west, in Turkey, tectonics are dominated by strike-slip faulting on the East (in southern Turkey) and North (in northern Turkey) Anatolian fault zones, accommodating the westward motion of the Anatolian block as it is being squeezed by the converging Arabian and Eurasian plates. The August 11, 2012 earthquakes occurred in the broad, elevated Turkish-Iranian Plateau region between these regimes and the Alborz Mountains further east. The events are consistent with the distributed, dominantly strike-slip mechanisms of historic earthquakes nearby, and with the orientation of mapped faults in the region. (Source: USGS)

Magnitude 7.7 – SEA OF OKHOTSK Earthquake

2012 August 14 02:59:42 UTC

The August 13, 2012 M 7.7 earthquake near Poronaysk, Russia occurred as a result of oblique-reverse faulting deep within the subducting Pacific plate beneath the Sea of Okhotsk, offshore of northeast Russia. The earthquake ruptured a fault in the interior of the inclined subduction zone that dips to the west-northwest beneath the Kuril Islands and Kamchatka, having begun its

decent into the mantle at the Kuril-Kamchatka trench. The event resulted from stresses generated by the slow distortion of the subducting plate as it descends through the mantle, rather than on the thrust interface the constitutes the boundary between the Pacific and overlying North America plates; the latter is active only near the Earth's surface, while the subducting Pacific plate is active to depths of over 650 km in this region. At the latitude of the August 13 earthquake, the



Pacific plate moves approximately 81 mm/yr towards the west-northwest with respect to the North America plate. Deep earthquakes in this region of the Pacific plate are not uncommon; there have been 10 similar events deeper than 450 km over the past 450 years, within 300 km of the August 13 2012 earthquake. The largest was a M 7.3 event in November of 2003, approximately 230 km to the south-southeast. Deep-focus earthquakes cause less damage on the ground surface above their foci than is the case with similar magnitude shallow-focus earthquakes, but large deep-focus earthquakes may be felt at great distance from their epicenters. The largest recorded deep-focus earthquake had a magnitude of 8.2, and occurred deep beneath Bolivia in 1994. (Source: USGS)

CASE NEWS:

CASE New Batch 2012-14:

Recently, 24 students have joined in 11th batch of M.Tech program in Computer Aided Structural Engineering after successful completion of written exam and interview. The structure of CASE curriculum has changed from



batch 2012-14. Student has to complete minimum 24 credits from structural engineering domain, a minimum of 8 credits from computer science domain, a minimum of 4 credits each from geotechnical domain, building science domain and spatial informatics domain to become eligible to receive M.Tech in CASE degree. Students can do internship in industry of 16 credits or project in either of above domains.

- Akash Krupeshkumar Chauhan and Nirav B Umravia (2012)., "Strength gaining of RC Columns Using FRP Retrofit Technique", Proceeding of Advances in Earth science, structural, Geotechnical and Earthquake Engineering, 4th – 5th October 2012.

Tour with CASE New Batch:

PG2 CASE has organized a tour to Belum Caves which is 320 kms away from Hyderabad. Around 35 members from PG1, PG2 and EERC have joined in this trip. Belum Caves is the second largest cave in Indian subcontinent and the longest caves in plains of Indian Subcontinent, known for its stalactite and stalagmite formations.



Trip has started early in the morning around 6:30 AM on 11th August 2012. We reached to Belum caves round 1:30 PM. We visited caves and Buddha statue nearby and spent lot of time in the caves. Around 5:30 PM, we returned to Hyderabad and reached at 1:00 AM.

Teacher's Day Celebration:

PG1 CASE has organized Teacher's day on 5th September 2012 in IIIT-H guest house. Almost all PG1 and PG2 CASE students were involved. They invited faculty members on the occasion of teacher's day. Students have taken valuable suggestions and advices from faculty. Finally the celebration was ended with cake cutting and distribution of gifts to faculty.



Engineer's Day Celebration:

"The ideal engineer is a composite ... He is not a scientist, he is not a mathematician, he is not a sociologist or a writer; but he may use the knowledge and techniques of any or all of these

disciplines in solving engineering problems". Happy Engineer's Day. On this occasion, PG1 CASE has organized a small gathering of all engineers from civil engineering discipline. Our university engineer, Shri. S L N Sastry garu has lighten the lamp. Dr. R Pradeep Kumar, Dr. KS Rajan and Dr. Neelima Satyam have given valuable suggestions to young budding engineers. Students



have planned tree plantation program after the event.

Convocation 2012:

IIIT-H has celebrated 11th convocation on 3rd November 2012. Shri ESL Narasimhan, Governor of AP invited as chief guest. Around 280 members have received degrees during 11th convocation. From our CASE, 10 students from M.Tech and 1 from M.S by Research have received.



Build India (Summer School Camp):

Build India-A Summer School camp was organized by EERC, IIIT-H for 60 days from 15th May to 13th July 2012. The main objective of summer school camp is to encourage students all over India particularly interested in research to get an idea about research. Around 25 students got selected for summer school camp from various engineering colleges all over the country.

BHUKAMP

The Newsletter of EERC

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Summer school camp consists of two phases. Students have to complete the gravity and lateral analysis and design of structure during first phase. After successful completion of students have choice to select any related research topic of their interest and work accordingly.

CONTACT INFORMATION

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