

Annual Report 2010-2011

Department of Civil Engineering

Introduction

The Department of Civil Engineering with its multifaceted faculty continues to maintain and cultivate its strong links with the building and construction industry and academic and research institutions both within and outside the country. Besides high quality teaching and instruction at both UG and PG levels, the Department is actively involved in basic and applied research and consultancy and provides high quality technical advisory support through various R & D projects and consultancy to various organizations. The department has attracted significant amount of sponsored research funding from government and private agencies.

Academic Programmes

The Department of Civil Engineering offers broad-based undergraduate B.Tech degree programme. A dual degree (B.Tech-M.Tech) programme is also run in structural engineering. Postgraduate M.Tech (admissions through GATE/sponsorships) and PhD (through selections/ sponsorships) programmes are offered in the following five specializations:

Geodesy and Remote Sensing
Geotechnical Engineering
Structural Engineering
Transportation Systems Engineering
Water Resources Engineering

This year, 61 M.Tech and 18 PhD students were admitted in the above specializations. In the first year, 101 students were on rolls in the B.Tech, 16 in the dual degree B.Tech/M.Tech programmes. The students graduated from the Department are as follows:

Degree Awarded	
B.Tech.	: 71
M.Tech.	: 36
Ph.D.	: 17
Dual Degree	
B.Tech.	: 20
M.Tech.	: 20

Significant Awards / Distinctions

Bajoria k.M.

Appointed as chairman of Indian ASTR (Association of Structural Rehabilitation)

Choudhury D.

APACM Award for Young Investigators in Computational Mechanics – 2010, The Asian Pacific Association for Computational Mechanics (APACM), Sydney, Australia, July 2010.

U. P. Government National Award – 2010, Indian Society for Technical Education (ISTE), New Delhi, India, December 2010.

Elected as Honorary Secretary of Technical Committee TC 212 on Deep Foundations for 2010 – 2013, International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), London, U.K., June 2010.

Dasaka, S.Murty

Patent: **Dasaka, S.M.** and Trudeep N. Dave: A triaxial geocomposite testing apparatus for simultaneously calibrating multiple pressure transducers, Indian Patent Application No 223/MUM/2011, Filed on 25 January 2011.

Jothiprakash, V.

The Union Ministry of Water Resources: Department of Irrigation Prize by Institution of Engineers (India) for the paper published in Civil Engineering Division, during the 25th Indian Engineering Congress, Kochi, 17th Dec. 2010.

Subimal Ghosh

The outstanding reviewer award for Journal of Hydrologic Engineering, American Society of Civil Engineers (ASCE), 2010.

BOYSCAST Fellowship 2010 from Department of Science and Technology, Government of India for carrying out research related to climate change in Oak Ridge national Laboratory, TN, United States of America.

Singh, D.N.

*Fellow, Indian National Academy of Engineering (INAE), New Delhi.
Fellow, American Society of Civil Engineers, ASCE*

R&D Activities

Sponsored Research

Sponsored Research Projects :	
New	: 10
Ongoing	: 48
Completed	: 9
Faculty Involved	: 27

Department received 10 new sponsored projects with a sanctioned outlay of Rs. 2,05,74,596. A list of sample of new and on going sponsored projects is as below:

Project Title	Sponsoring Agency	Status
Behaviour of shallow footings subjected to underground and overground blast loading	DST	Ongoing

Development of a New Methodology for Determining Distribution Coefficient (K_d) for Radionuclides in Soils	BRNS	Ongoing
Integrated Flood Assessment Modeling for Urban Watershed Using Finite Element method, GIS and Remote Sensing	DST	Ongoing
Hydraulic Model Investigations for Design of Raft Foundations for Bridges”, Ministry of Shipping, Road Transport & Highways	Ministry of Shipping, Road Transport & Highways	Ongoing
Development of Reliability Based Guidelines for the Design and Flaw Evaluation of Nuclear Piping System	BRNS, DAE	Ongoing
Affordable Urban Modular Residential Buildings in Steel in India	Arcelor Mittal R&D, Belgium	Ongoing
Evaluation of Coal ash as a landfill liner material for waste containment systems	DST	Ongoing
Risk of clay liner cracking and environmental hazard	IFCPAR	Ongoing
Dynamic properties of soils of Mumbai region: pilot study	MoES	Ongoing
Stresses and deformation of tunnels subjected to earthquake loading	DST-NSC	Ongoing
Second generation area traffic control system	DIT, Gov. of India	On going
Real-time transit route information and Trip planner	DIT, Gov. of India	On going
Real time traffic counting and monitoring station	DIT, Gov. of India	On going
Development of the Virtual Laboratory on Traffic Engineering	MHRD	On going
Development of the Web based course Traffic Engineering and Management	NPTEL	On going

Consultancy Work

274 consultancy projects worth about Rs. 9,15,59,290 were undertaken during the year by the Civil Engineering Department. 23 faculty members were involved in the above consultancy work.

Extension Activities

In order to encourage and facilitate interaction amongst practitioners and researchers, the following activities were organized:

Conferences and Workshops

Indian Geotechnical Conference (IGC – 2010), GEOTrendz, December 16 – 18, 2010. (Organizing Secretary: B.V.S. Viswanadham, Joint Organizing Secretaries: Dasaka, S.Murty and Deepankar Choudhury)

International Symposium on Forensic Geotechnical Engineering, IIT Bombay, 14-15 December, 2010. (Organizing Secretary: Dasaka, S.Murty and B.V.S. Viswanadham).

Ninth International Workshop on Transportation Planning and Implementation Methodologies in Developing Countries (TMPDC), Mumbai, India, December 15-17, 2010 (Organized by Transportation Systems Group)

ATC-18 *International Workshop on Mega Foundations: Recent Advances on large and deep foundations*, September 16, 2010. (Organizing Secretary: Juneja A)

Organized *Research Scholars' Confluence: 2010* on Nov 13, 2010. (Organizing Secretary: M.C. Deo)

Organised International workshop on CORFU-“Collaborative Research on Urban Flooding” at IIT Mumbai under FP7 EU Research Programme, 4-5 February 2011. (Organizing Secretary: Gupta Kapil)

Short-Term and CEP Courses

QIP & CEP Course “Climate Change and Water Management”, held during 28 February – 4th March 2011 Oct. 12-16, 2009 (**Prof. Subimal Ghosh & Prof. Eldho T.I**)

CEP Course (Open), on "Urban Drainage Management- State-of-the-Art" IIT Bombay, 2-4 September 2011. (**Convener: Prof. Kapil Gupta**)

An in-house CEP course entitled “Urban Transportation Modelling System” was conducted for the planners and engineers from the Planning Division of Pune Municipal Corporation during January 11-13, 2011. (**Convener: Prof. KVK Rao**)

CEP-QIP short-term course on “Risk Assessment and Management in Geotechnical Engineering”, at IIT Bombay, March 14-18, 2011. (**Convener: Prof. Dasaka S. Murty**)

Five days CEP/QIP course on Advances in Geotechnical Engineering (April 12-16, 2010) (**Convener: Prof. Juneja A**)

QIP Short Term Course on “Innovations in Traffic Flow Modeling” 05-09 July 2010, Indian Institute of Technology Bombay. (**Convener: Prof. Tom V Mathew and Prof. P. Vedagiri**)

Visitors to the Department and their presentations

Name and Affiliation	Date	Lecture Topic
Dr Ji Chen, Department of Civil Engineering, The University of Hong Kong, Pokfulam, Hong Kong, China.	8th July 2010	Observed climate change and urbanization effects on regional climate in south china
Prof. Schwing, Karlsruhe University.	15th July 2010	Soil Nailing in Germany

Dr. Jeremy Blum, Assistant Professor of Computer Science at the Penn State University, Harrisburg.	9th August 2010	Agent-based optimization of transit route network design
Vikrant Vaze, Doctoral candidate at the Massachusetts Institute of Technology (MIT)	23rd August 2010	Game theoretic models of airline frequency competition for airport congestion mitigation
Mr. C.M. Dordi, Vice President (Technical Services), Ambuja Cements Ltd.	27th August 2010	Future challenges for young civil engineers
Prof. Saman Bandara, University of Moratuwa, Sri Lanka	3rd September 2010	Assessing accessibility and connectivity of nodes of transportation networks under disaster risk
Prof. Jyant Kumar, IISc Bangalore.	8th October 2010	Limit analysis with finite elements: applications in geomechanics
Dr. Nitesh Chawla, Assistant Professor in the Department of Computer Science and Engineering at the University of Notre Dame.	19th October 2010	Data mining algorithms for climate sciences
Prof Dimitris Tsamboulas, National Technical University of Athens.	22nd October 2010	Evaluation and impacts of transport infrastructure projects
Dr. Jitendra Bajpai, Area Director, World Bank	11th January 2011	Transport in development: a world bank perspective
Prof. Musharraf Zaman, University of Oklahoma.	14th January 2011	Field performance of asphalt pavement containing mine tailings
Prof Jose Manuel Viegas Professor of Transportation	18th January	Revisiting some of the fundamentals of transport

Systems, IST, Lisbon.	2011	modeling: Optimizing Transportation Analysis Zones and getting rid of them
Mr. Deepak raj, General Manager Keller India	5th March 2011	Ground improvement techniques for various infra-structure projects
Mr. Sudhir P Badami, Chief consultant, Mumbai	5th March 2011	Setting right priorities for mumbai transportation
Ms. Alpa Sheth Managing Director, VMS Consultants Pvt. Ltd.	6th March 2011	State of practice of structural design engineering in India.

Participation in Conferences/Symposia/Workshops/Seminars

Bajoria, K. M.

Sixth International Engineering and Construction Conference, American Society of Civil Engineers, Egypt, 28-30 June 2010.

Chandiramani, N. K.

Participated, presented paper, and chaired session on Vibration Control in 6th *International Conference on Vibration Engineering and Technology of Machinery (VETOMAC-VI)*, IIT Delhi, December 13-15, 2010, New Delhi.

Participated, presented paper, and chaired session on Noise and Vibration Suppression and Control in *17th International Congress on Sound and Vibration*, paper 441, July 18-22, 2010, Cairo. Another paper presented by co-author (PhD student).

Choudhury, D.

Participated and made oral presentation of two technical papers in *GeoFrontiers-2011, Annual Congress of the Geo-Institute of ASCE*, March 13-16, 2011, Dallas, Texas, USA organized by GI-ASCE.

Participated and delivered Keynote Lecture at *National Conference on 'Landslide Hazard, Consequences and Challenges'*, 10-12 February, 2011, Central Building Research Institute (CBRI), Roorkee, India.

Participated and presented a technical paper in *BGC – 2010*, Bangladesh Geotechnical Conference of the Bangladesh Geotechnical Society, Dhaka, November 4 – 5, 2010.

Participated and delivered Plenary Lecture at *1st International Conference on Disaster Prevention Technology and Management (DPTM-2010)*, 23-25 October, 2010, Chongqing, China.

Deo. M.C

Attended *Water-2010* conference at Quebec, Canada during July 5-7, 2010

Attended *Ninth International Conference on Hydro-Science and Engineering*, ICHE 2010, IIT Madras Aug 2-5, 2010

Attended *Hydro-2010* conference at Mullana, December 16-18, 2010.

Eldho, T.I.

Participated and Chaired a Session in Int. Conf. “*An International Perspective on Water Resources & the Environment*”, National University of Singapore, January, 4-6, 2011.

Participated and Chaired a Session in *Ninth International Conference on Hydro-Science and Engineering*, held at IIT Madras, Chennai, India on August 2-5, 2010.

Second International Conference on Coastal Zone Engineering and Management (Arabian Coast 2010), Sultan Quabooz University, Muscat, Oman, November 1-3, 2010

Gopal R Patil

Attended 90th Transportation Research Board Annual Meeting, Washington, DC, January 2011.

Attended a workshop, Accelerated Commercialization of Technology and InnoVation (ACTIV), organized by AcceleratorIndia (UK) and Venture Center (India) in Pune, India during September 30 and 1st October 2010

Ghosh S

Participated and presented a poster in the 9th US National and 10th Canadian Conference on Earthquake Engineering, Toronto, Canada, July 25-29, 2010.

Participated and presented a paper in the 14th Symposium on Earthquake Engineering, Roorkee, India, December 17-19, 2010.

Participated and gave a talk in the 2nd Annual AFRRE Meeting, Kharagpur, India, March 21-22, 2011.

Participated and chaired a session in the *International Conference on Post-Disaster Reconstruction* on the 10th Anniversary of Bhuj Earthquake 2001, Gandhinagar, India, April 14-16, 2011.

Janga Reddy, M.

Participated in a National Workshop on “Geo-Statistics & Soft Computing Techniques for Spatial Data Management” and delivered an invited lecture on “Multivariate Frequency Analysis of Droughts Using Copulas”, workshop held at SV University Thirupathi, India during 22-24 Nov’ 2010.

Jothi prakash, V.

Attended and presented papers in the following conferences: *Workshop on Integrated Water Resources Management (Crossing Boundaries)*, Anna University, 26th April 2010.

International 7th Annual Meeting AOGS 2010, Hyderabad, India, July 5-9, 2010, pp144.

National Workshop on Geo-Statistics and Soft Computing Techniques for Spatial Data Management, Sri Venkateswara University, Tirupati, 22-24 Nov. 2010.

ASCE-EWRI 4th International Perspective on Water Resources the Environment IPWE- 2011, National University of Singapore, Singapore, 4-6th Jan 2011.

Tarun Kant

Participated in *International Union of Theoretical Applied Mechanics (IUTAM) General Assembly* in Paris, France on 16-19 July 2010 as a Member, representing Indian National Science Academy (INSA).

K.V. Krishna Rao

Participated and presented two papers in the *12th World Conference on Transport Research* held during 11–15 July 2010 in Lisbon, Portugal.

Rao E.P

Participated by invitation in *Indo-US Bilateral Workshop 2010 on Sedimentation, Erosion, Flooding, and Ecological Health of Rivers (WSEHR-10)* at Indian Statistical Institute, Kolkata, during November 1 – 3, 2010.

Rastogi A.K

MRBC Dispersion Parameters Assessment by SA, GA and GNM Inverse Modeling - V P Huggi and Rastogi A K – Oral presentation in the *5th International Conference in Environmental Science and Technology (5th ICEST 2010)* Organised by American Academy of Sciences, held at Hilton Hotel, Houston, Texas, USA July 13 – 16, 2010.

Vedagiri P

Participated in the international seminar on *Introduction of Guidelines for Expressways*, Mumbai, 14 May 2010.

Participated and presented a paper in International Workshop on *Transportation Planning Methodologies and Implementation for Developing Countries (TPMDC-2010)* towards sustainability, IIT Bombay 15 - 17 December, 2010.

Participated in the international seminar on *Green Building And Sustainable Infrastructure*, Taj Mahal Palace, Mumbai, 13 April 2011.

Viswanadham. B.V.S.

Attended and participated in 7th International conference on *Physical modeling in Geotechnics (ICPMG)*, Zurich, Switzerland, June 28-July 1, 2010 presented three papers orally at the conference and presented a general report on 'Dams and Embankments' on June 29 2010 during the conference.

Attended and participated in 6th International congress on *Environmental Geotechnics* at New Delhi during November 8-12, 2010

Attended and participated in 1st US-India Workshop on *Global Geoenvironmental Engineering Challenges (GGEC)* held at New Delhi on November 7 2010.

Invited Lectures

Banerjee Sauvik

Ultrasonic Guided Waves for Large Area NDI of Metallic and Composite Structures – Modelling, Simulation and Signal Processing, Pre-Conference Tutorial on 'Signal Analysis, Simulation and Modeling', National NDE Seminar, NDE-2010, Kolkata, December 7, 2010.

Finite Element Modeling of Wave Propagation and Vibration Problems With Applications to Structural Health Monitoring, Veermata Jijabai Technological Institute, Matunga, Mumbai, January 21, 2011.

Ultrasonic Guided Waves for Large Area NDI of Metallic and Composite Structures, ISRO Satellite Centre, Bangalore, February 2, 2011.

Impact of climate change on hydro-hazards: hydrological extremes and water related disasters- adaptation and mitigation measures, UNESCO International Workshop on “Adaptation and Mitigation Options for Tackling the Impacts of Climate Change on Water Resources”, March 14-15, 2011, New Delhi

Choudhury, D.

Seismic Behaviour of Piles in Liquefied Soils for Infrastructural Applications, on 18th March, 2011, at Oklahoma Transportation Center (OkTC), Oklahoma 73110, USA.

Recent Advances in Seismic Slope Stability Analysis, on 12th February, 2011, at Central Building Research Institute (CBRI), Roorkee, India.

Applications of Geotechnical Earthquake Engineering Research for Disaster Mitigation and Management, on 23rd October, 2010, at Chongqing, China.

Recent Researches on Geotechnical Earthquake Engineering at IIT Bombay, on 26th July, 2010, at Department of Civil Engineering, Monash University, Melbourne, Victoria 3800, Australia.

Geotechnical Earthquake Engineering: Recent Researches at IIT Bombay, on 23rd July, 2010, at School of Civil Engineering, University of Wollongong, NSW 2522, Australia.

Dasaka, S.Murty

Delivered a lecture on *Reliability Based Design in Geotechnical Engineering*, as part of CEP-QIP short-term course on Advances in Geotechnical Engineering, at IIT Bombay, on April 18, 2010.

Delivered a lecture on *Shallow Foundations – Analysis and Design* as part of in-house Continuing Education Programme for M/s.FL Smidth Pvt. Ltd., Mumbai, at IIT Bombay, on July 10, 2010 .

Delivered the keynote address on *Effect of Loading Mechanism on Plate Load Test Results* at the state level seminar on Recent Trends In Civil Engineering, Department of Civil Engineering of Shahajirao Patil Vikas Pratishthan's S.B. Patil College of Engineering Indapur, Maharashtra, February 19, 2011.

Deo, M.C.

Key Note Speech in *Hydro-2010* conference held at Mullana, During Dec. 16-18, 2010

Eldho, T.I.

Invited Lecture, *Fluid Mechanics Studies and Applications*, Nirma University, Ahmedabad, 10th February 2011.

Invited Lecture, *Watershed Based Rainfall-Runoff Modeling/ Flood Simulation Using FEM, GIS and Remote Sensing*, Sardar Vallabhai National Institute of Technology, Surat, India, 28th August 2010.

Invited Lecture, *Integrated Watershed Modeling for Rainfall-runoff using FEM, GIS and Remote Sensing*, Center Water Resources Development and Management, Kozhikode, Kerala, 4th June 2010.

Gopal R Patil

Real-time traffic counting and monitoring system, *National workshop on Intelligent Transportation Systems*, Pune, June 2010)

Transportation Network Design Problem, *QIP short term course*, IIT Bombay, July 2010

Real-time Traffic Counting and Monitoring System, *QIP short term course*, IIT Bombay, July 2010

Emission based Traffic Assignment Models, *9th International Workshop on Transportation Planning and Implementation Methodologies in Developing Countries (TMPDC)*, Mumbai, India, December 15-17, 2010

Gupta Kapil

Impact of climate change on hydro-hazards: hydrological extremes and water related disasters- adaptation and mitigation measures, UNESCO International Workshop on “Adaptation and Mitigation Options for Tackling the Impacts of Climate Change on Water Resources”, March 14-15, 2011, New Delhi

Ghosh. S

Keynote lecture on *Steel plate shear wall* in the International Conference on the Innovative World of Structural Engineering, Aurangabad, India, 2010.

Keynote lecture on *Probabilistic characterization of primary stress index B_2 in nuclear piping* in the 2nd AFRRE Meeting at IIT Kharagpur, India, 2011.

Janga Reddy M.

Delivered an invited lecture on “Impact Assessment of Climate Change on Regional Droughts in India” in a QIP/CEP course- Climate Change and Water Management, held at IIT Bombay, during February 28 – March 04, 2011.

Jothiprakash, V.

Soft Computing Techniques in Water Resources Engineering, National Conference on Civil Engineering for Infrastructural Developments (CID-2010), D.Y. Patil College of Engineering, Akurdi, Pune, 30 – 31 Aug 2010.

Conceptual design of airport drainage network, Short Term Course on Basics of Flood Modeling, NITTR, Chennai, on 3rd October 2010.

Reservoir Inflow Prediction Using Time-Delay Recurrent Neural Network with Spatially Distributed Rainfall Data, National Workshop on *Geo-Statistics and Soft Computing Techniques for Spatial Data Management*, Sri Venkateswara University, Tirupati, 23rd Nov. 2010.

“Design of storm water drainage network in low lying areas”, Short Term Course on “Urban Storm Drain Designing and Modeling”, SVNIT, Surat, on 10th Jan. 2011.

Juneja A

Delivered Invited Lecture on *Geotechnical centrifuge modelling* at the Department of Civil Engineering, National Kaohsiung University of Applied Sciences, Kaohsiung, Taiwan (May 2010)

Pani B.S

Invited lecture, *Effective Effluent Management for Environment Sustenance*, International Congress of Environmental Research, Sep 2010, Reduit (Mauritius).

Rao E.P

Delivered a lecture to the participants of QIP and CEP short term course on *Climate Change and Water Management*, Civil Engineering Department, IIT Bombay, Mumbai, 28 February – 4 March, 2011.

Singh, D.N.

Delivered a lectur on *Instrumentation for Various Geoenvironmental Engineering Issues*, CWPRS, Pune, December 2010.

Viswanadham. B.V.S.

A lecture entitled *Centrifuge model studies on landfill cap covers* was delivered at the LTHE, Department of Civil Engineering, University of Joseph Fourier 1, Grenoble, France on June 4 2010.

A lecture entitled *Studies on Waste Containment Systems and Relevance to India* was delivered at the workshop *Relevance of*

Scientific MSW landfilling to Indian Mega cities conducted at IIT Bombay on November 1 2010

An invited lecture entitled *Studies on landfill containment systems* was delivered at the Department of Civil Engineering, Goa University on November 3, 2010.

A keynote lecture entitled *Potential of Geosynthetics for Infrastructure Projects* was delivered on January 24, 2011 at 14th All India Builders Conference held in Chennai.

Honorary Work

Bajoria k.M.

Referee PhD Thesis (IIT Delhi)

Banerjee Sauvik.

Reviewed papers for Journal of Structural Health Monitoring, Structural Control and Health Monitoring. Taught three lecture sessions of the Industry Technical Training for FLSmith Engineers, conducted by Civil Engineering Department from April 17-July 17, 2011.

Chandiramani, N. K.

Reviewer for : AIAA Journal, Journal of Sound and Vibration, ASME Journal of Dynamic Systems, Measurement and Control, Mechanics of Advanced Materials and Structures, Applied Mathematical Modeling, Sadhana, Structural and Multidisciplinary Optimization, Composite Structures, ASCE Journal of Computing in Civil Engineering, Journal of Institution of Engineers (India)

Choudhury, D.

Editorial Board Member of 'ISSMGE Bulletin' (Quarterly Newsletter), published by International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), London, U.K. Editorial Board Member of 'International Journal of Geotechnical Earthquake

Engineering (IJGEE)' (ISSN: 1947-8488), IGI publishing. Editorial Board Member of Journal 'Disaster Advances' (ISSN: 0974-262X), published from India. Managing Editor for December 2010 issue (Volume 4, Issue 4) of 'ISSMGE Bulletin', published by International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), London, U.K. Responsible Member to shortlist the ASCE Papers for nomination of Awards from UNSAT committee of Geo-Institute, American Society for Civil Engineers (GI-ASCE), USA. Reviewer of technical papers for several Journals like (i) Soil Dynamics and Earthquake Engineering, Elsevier (ii) Journal of Geotechnical and Geoenvironmental Engineering, ASCE, (iii) International Journal of Geomechanics, ASCE, (iv) Engineering Geology, Elsevier (v) Geotechnical Engineering, Proc. of Institute of Civil Engineers (ICE), (vi) Ground Improvement, ICE (vii) Geotechnical and Geological Engineering, Springer (viii) Landslides, Springer (ix) Bulletin of Earthquake Engineering, Springer (x) Scientia Iranica, Transaction A (xi) Waste Management, Elsevier, (xii) FUEL, Elsevier, (xiii) Acta Mechanica Solida Sinica, Elsevier, (xiv) Civil Engineering Journal of Institute of Engineers, IEI, India and (xv) Indian Geotechnical Journal, IGS, India. Reviewer for GeoFrontiers 2011: Annual Conference of Geo-Institute (GI), ASCE, USA. Reviewer for GeoRisk 2011: Conference of Geo-Institute (GI), ASCE, USA. Reviewer for 64th Canadian Geotechnical Conference and 14th ISSMGE Pan American Conference (2011 Pan-Am CGS Geotechnical Conference), October 2 - 6, 2011, Toronto, Ontario, Canada organized jointly by ISSMGE and Canadian Geotechnical Society, Canada. Reviewer for 13th International Conference of International Association for Computer Methods and Advances in Geomechanics (13IACMAG 2011), May 9-11, 2011, Melbourne, Australia organized by IACMAG, USA. Reviewer for Sponsored Research Project Proposal of 2010-2011 for SERC Division of Department of Science and Technology (DST), Govt. of India. Member of Technical Committee TC 203 on Geotechnical Earthquake Engineering of International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE), London, U.K. Technical Advisory Committee (TAC) Member, 4th International Conference on Grouting and Deep Mixing (Grout2012) during

February 15 – 18, 2012, New Orleans, Louisiana, USA, jointly organized by Deep Foundations Institute (DFI) and International Conference Organization for Grouting (ICOG), USA. Serving as Nominated Expert Member of the Departmental Undergraduate Programme Committee (DUPC) of Department of Civil Engineering, College of Engineering, Pune (COEP), India, since January 2009.

Dasaka, S.Murty

Elected Member of Executive Committee, Indian Geotechnical Society, for the term 2011-12. Reviewer: (i) Journal of Geotechnical and Geoenvironmental Engineering, ASCE , (ii) International Journal of Geotechnical Earthquake Engineering (IJGEE), (iii) International Journal of Earth Sciences and Engineering, (iv) International Conference on Physical Modelling in Geotechnical Engineering (ICPMG2010), (v) International Conference on Advances in Geotechnical Engineering (GEOFRONTIERS-2011), (vi) Indian Geotechnical Conference (IGC-2010)

Deo, M.C.

Editor, International Journal of Ocean and Climate Systems, Multi-Science Publishing, U K. Associate Editor of ASCE Journal of Computing in Civil Engg. Chairman, Editorial board of ISH Journal of Hydraulic Engineering, Member, Editorial Board, International Journal of Ships & Offshore Structures, Taylor & Francis, Member, Editorial Board, Open Ocean Engineering Journal, Bentham Press, UK. Member, Editorial Board, Journal of Advances in Civil Engineering, Hindawi Pub.New York, Member, Editorial Board of past Civil-Comp conference-2010, Portugal, Editor: Special issues of the ISH Journal of Hydraulic Engineering -2010. Independent Director, Konkan Railways. Reviewed around 30 papers for international and national journals. Reviewed Ph D theses of IITM (2), IITR, NITTTR. Member, Scientific Advisory Committee, NIOT. Member, Project Management Board, NIOT, Member, faculty selection committee of IITKGP (2), Member, Scientist Selection Committee, CSIR.

Eldho, T.I.

Associate Editor of International Journal of Ecology and Development. Editor-in-Chief of the Journal “International Journal of Water Resources and Environmental Management” published by Research Science Press. Referee Ph.D. Thesis, IIT Roorkee; NIT Surathkal, IIT Madras, JNTU, Hyderabad, ISI Kolkotta, University of Malaya, Malaysia. Technical Review Committee Member of ICAR, Rubber Dam project implemented by Indian Rubber Manufacturing Research Association, Thane. Technical Committee Member of Ninth International Conference on Hydro-Science and Engineering, held at IIT Madras Reviewed Project proposal for DST, New Delhi, 2010. Member, UGAPEC, IIT Bombay. Youtube webcasted the Video Course on “Fluid Mechanics”, and rated as popular engineering course video. Reviewed research papers for the following Journals in 2009-2010. Journal of Water Management, Institution of Engineers, UK International Journal of Water and Environmental Management, Journal of Water Resources Management, International Journal of Ecology & Development, ASCE Journal of Irrigation and Drainage, Journal of Environmental Modeling & Software, ASCE Journal of Practice of Hazardous, Toxic, and Radioactive Waste Management, Int. J. Hydrological Processes, ISH Journal of Hydraulics Engineering, Journal of Institution of Engineers (India) – Civil Engineering Section, ASCE Journal of Hydrologic Engineering, International Journal of Earth Sciences and Engineering, Journal of Earth System Science, Journal of Geomatics, Sadhana - Academy Proceedings in Engineering Science, Journal: Frontiers of Environmental Science and Engineering in China, Journal of Agricultural Science and Technology, Journal of Contaminant Hydrology, Journal of Spatial Hydrology, Journal of Natural Hazards, Journal of Pedosphere, Journal of Water Resources Research

Gopal R Patil

Papers reviewed for : Journals: Network and Spatial Economics, Transportation Research Record, Transportmetrica, Journal of Advanced Transportation, Current Science. Conferences:

Transportation Research Board annual meeting, Washington DC;
ICTPA 24th Annual Conference, Los Angeles

Gupta Kapil

Membership of working groups/expert committees as follows:
Member -UNESCO Working Group: Sustainable Urban Water Strategies, VII IHP, 2008-2013. Member- Editorial Board: Urban Water Journal. Convener and Member, Expert committee for drafting the “Guidelines for urban flood disaster management” for National Disaster Management Authority, Government of India, New Delhi. Member, Expert committee on drafting the “Urban Drainage Manual”, CPHEEO, Ministry of Urban Development, Government of India, New Delhi.

Ghosh S

Reviewer: (i) ASCE Journal of Bridge Engineering, (ii) ASCE Journal of Structural Engineering (iii) Engineering Structures (iv) ISET Journal of Earthquake Technology (v) Sadhana. Examiner of Ph.D./Masters thesis from (i) IIT Roorkee and (ii) VJTI, Mumbai. Reviewer of course-materials developed under the National Mission on Education using Information and Communication Technology (NME-ICT). Expert member of Department Undergraduate Programme Committee (DUPC) and Department Postgraduate Programme Committee (DPPC-Structuar Engineering) of Dept of Civil Engineering, College of Engineering, Pune

Janga Reddy, M.

Reviewed project proposals to DST; Reviewed technical papers for Journals: Journal of Hydrologic Engineering (ASCE), ASCE Journal of Water Resources Planning and Management, Journal of Hydrology, Journal of Hydroinformatics, Water Resources Management, Irrigation & Drainage, Environment Modeling and Software, ISH Journal of Hydraulic Engineering, Journal of Earth System Science.

Jangid, R.S.

Reviewer for research papers of Advances in Structural Engineering, ASCE Journal of Structural Engineering, Bulletin of Earthquake Engineering, Earthquake and Structures, Engineering Structures, International Journal of Physical Sciences, International Journal of Structural Stability and Dynamics, Journal of Engineering for The Maritime Environment, Journal of Seismology and Earthquake Engineering, Journal of Sound and Vibration, Journal of Vibration and Control, Marine Structures, Mechanical Systems and Signal Processing, Structural Control and Health Monitoring, Soil Dynamics and Earthquake Engineering, Proceedings of The Institution of Mechanical Engineers, Part M, Structural Engineering & Mechanics, Sadhana- Academy Proceedings in Engineering Science, Scientific Research and Essays, and The Open Ocean Engineering Journal. Editorial Board Member, The Open Ocean Engineering Journal. Editorial Board Member, The Open Construction and Building Technology Journal. Editorial Board Member, Earthquakes and Structures Journal. Independent Director, ETC Network Limited.

Jothiprakash, V.

Co-opted member ISH , CWPRS, Pune, 2010-2012. Indian Examiner for Ph.D and M.S thesis of IIT Madras and Anna University. Reviewer : Hydrological Sciences Journal, Journal of Hydrology, Sadhana, ASCE Journal of Hydrologic Engineering, ASCE Journal of Hydraulic Engineering, Natural Hazards, Water Resources Research, Water Resources Management (Springer Publications), Journal of Institution of Engineers (India) Civil Engineering Division, Journal of Indian Society of Hydraulics. NSS coordinator IIT Bombay.

Juneja A

Reviewer of papers in Journals: (i) Geotechnical Testing Journal, ASTM, American Institute of Physics, NY; (ii) Journal of Materials in Civil Engineering, ASCE; (iii) Ground Improvement Journal; (iv) Geotechnical and Geological Engineering, Springer Science; (v) Geomechanics and Engineering, an International Journal; (vi) Canadian Geotechnical Journal; (vii) Journal of Civil Engineering,

Institution of Engineers (India). Reviewer of papers in Conferences: (i) International Conference on Physical Modelling in Geotechnics, Zurich (2010); (ii) Indian Geotechnical Conference, Mumbai (2010) Reviewed more than 40 papers for IGC 2010. Core Member ATC-18 on Deep excavations and Mega Foundations of ISSMGE. Member TC 305 on MegaCities of ISSMGE

K.V.Krishna Rao

Member of the Panel for Sustainability, CED 46:P19, Part 11 - Approach to Sustainability, National Building Code 2005, Bureau of Indian Standards. Member of the Standing Technical Advisory Committee on Road Works, Municipal Corporation of Greater Mumbai. Member of the IRC technical committee on *Transport Planning, Traffic Engineering & Road Safety* (H-1). Member of the IRC technical committee on *Urban Roads* (H-8)

Pani B S

Reviewer (i)Journal of Hydraulic Engineering, ASCE (ii)Journal of Hydro-environment Research, IAHR (iii)Advances in Water Resources (iv)Canadian Journal of Civil Engineers

Rastogi. A. K.

Invited to evaluate Ph.D. Thesis, Department of Civil Engineering, I I Sc Bangalore April, 2010. Invited to conduct Ph.D. viva, Department of Civil Engineering, IISc Bangalore Oct, 2010. Invited to evaluate Ph.D. Thesis, Department of Civil Engineering, IIT Roorkee, March 2011. Member Advisory Committee, Dept. of Civil and Environment Engineering, VJTI, Mumbai. Member Board of Studies of Dept. of Civil and Water Management Engineering, SGGS Institute of Engineering and Technology, Nanded. Invited as Expert on academic evaluation process Dept. of Civil and Water Management Engineering, SGGS Institute of Engineering and Technology. Member Expert Panel – *Indian National Committee on Groundwater*, Govt. of India. Member Expert Panel – *Indian National Committee on Hydraulics*, Govt. of India. Reviewer : (i) Jr. of Porous Media (ii) Asian Jr. of Water Environment and Pollution (iii) Canadian Geotech.

Jr. Hydrogeology Jr. (iv) International Journal of Water (v) Journal of Water Resource and Protection (vi) ISH-Jr. of Hydr. Engg. (vii) Journal of Hydrology. (viii) Jr. of Inst. of Engineers – Civil Engg. Divn (ix) KSCE Jr. of Civil Engineering. Selected to appear in Who's Who World Class Alliance – 2011 by Continental Broadcasting Network Inc US.

Singh, D.N.

Editorial Board Member (i) International Journal of Geomechanics, ASCE (ii) Geotechnical Testing Journal, ASTM International (iii) Geomechanics and Geoengineering (Taylor & Francis). (iv) Korean Society of Civil Engineering (KSCE) Journal of Civil Engineering (v) International Scholarly Research Network (ISRN) Civil Engineering. (v) International Journal of Geotechnical Engineering (vi) Geomechanics and Engineering (GAE), *An International Journal of Computational and theoretical Geomechnics, Foundation Engineering Engineering Applications, Site Characterization*. Guest Editor: Special Issue: *Contemporary Issues in Ground Improvement Techniques: Ground Improvement (Thomas Telford Ltd.)*, Volume 163, Issue GI4, November 2010. Special Issue: *Characterization of Unsaturated Soils: Geotechnical and Geological Engineering (SPRINGER)*, Guest Editors: D. N. Singh and Sai K. Vanapalli, Volume 29, Number 2, March 2011.

Subimal Ghosh

Reviewer of Water Resources Research, Journal of Geophysical Research, Journal of Hydrologic Engineering, Journal of Hydrology, Climatic Change etc.

Tom V.M

Member of the International Technical Committee(ITC), IEEE Intelligent Transportation Systems Conference, ITSC 2011, 2011, Washington DC, USA. Member, Technical Scrutiny Committee for the Development of Multi-level Car Parking in Greater Mumbai, Municipal Corporation Of Greater Mumbai, 2010. Member, Technical Scrutiny Committee for the Local Area Traffic

Improvement Project in Greater Mumbai, Municipal Corporation Of Greater Mumbai, 2010.

Vedagiri. P

Reviewer: Journal of Transport, Journal of Public Transport, ASCE Journal of Computing in Civil Engineering, Journal of Advanced Transportation.

Publications

Books

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Edited Books/ Monograph:

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Structural engineering: Computer aided design, Non-linear analysis, Smart structures, Green Structures, Structural Rehabilitation, Cold-formed steel structures.

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Numerical/Experimental studies on geosynthetics, Centrifuge modeling of geosynthetics reinforced soil wall and slopes, Geosynthetics in Landfill-Municipal/Hazardous (Industrial)/Low level radio activewaste, Tsunami reconstruction with geosynthetics containment systems, Ground improvement techniques using PVD,encased stone column, smart-geosynthetics and Electrokinetics technique, Nano technology and geosynthetics, Geosynthetics in coastal/marine/hydraulics and waterway erosion control, Environmental remediation and waste containment, Geosynthetics in dewatering, Highway/Railways/Air ways/Pavements Embankments and reflection cracking/pothole/asphalt overlay, Geosynthetics in mining, Bio and agriculture engineering.

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