

**Annual Report**  
**Department of Civil Engineering**  
**2014-2015**



**Indian Institute of Technology Bombay**

**Mumbai, Powai**  
**Maharashtra 400076**

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# Annual Report 2014-2015

## Department of Civil Engineering

### 1.Introduction

The Department of Civil Engineering, one of the founding departments of IIT Bombay, over the years, has grown tremendously, and is now recognized as one of the best and major engineering departments in the country and ranked highly in the world for civil engineering. With its multifaceted faculty, the Department 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.

### 2.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:

Structural Engineering  
Geotechnical Engineering  
Water Resources Engineering  
Transportation Systems Engineering  
Remote Sensing  
Ocean Engineering

At present the annual intake into B.Tech, M.Tech and Ph.D. programmes stands at 117, 69 and about 40 respectively. B.Tech students have the option of converting into B.Tech - M.Tech dual degree programme, and M.Tech students into M.Tech – Ph.D. dual degree programme. During 2014-15, 112 B.Tech degrees, 17 B.Tech-M.Tech dual degrees, 41 M.Tech degrees, 2 M.Tech – Ph.D dual degrees and 14 Ph.D degrees were awarded from the department.

### **3. Significant Awards / Distinctions**

#### **Eldho T I**

2014 Best Theoretical oriented paper from Journal of Hazardous, Toxic and Radioactive waste of American Society of Civil Engineers, EWRI, USA.

#### **Choudhury, D**

TWAS Visiting Scholar Fellowship award in research contribution in Geotechnical Earthquake Engineering in “Engineering Sciences” section below 55 years age by the World Academy of Sciences (TWAS), Trieste, Italy

Excellent Research, Teaching and Development activities in the area of Geotechnical Earthquake and Foundation engineering with applications of computational Geomechanics by the International Association for Computer methods and advances in Geomechanics (IACMAG), AZ, USA.

Visiting professor (Guest Professor) at Institute & Laboratory of Geotechnics, Faculty of Civil and Environmental Engineering, Technical University (TU) Darmstadt, Franziska-Braus-Strasse 7, Darmstadt – 64287, Germany from June-July 2013 and May-July 2014.

#### **Reddy, M. J**

M. Janga Reddy , Adarsh S (2014). Multiscale Analysis of Reservoir Inflow Time Series using the Hilbert Huang Transform. Proc. Of International Conference on Modeling Tools for Sustainable Water Resources Management, IIT Hyderabad, Dec 28-29, 2014, Hyderabad.

#### **Prakash Nanthagopalan**

Excellence in Teaching award from Indian Institute of Technology, Bombay

#### **Laskar, A**

Outstanding Reviewer for Elsevier Engineering Structures (October 2014)

#### **Desai, Y. M**

JK and MJ Mehta Chair Professor August 2014.

#### 4. Awards by Students

B.Tech Silver Medalist – Namrata Singh

Dual Degree Silver medalist – Soumil Agrawal

M.Tech silver medalist – Alakananda Sen

Dr. Shankar Dayal Sharma Gold medal – Namrata Singh

Prof. Madhav Kulkarni Lt. Col (R) Gold medal – Namrata Singh

Manjula Bagmal Parikh foundation Trust prize – Namrata Singh

Excellence in Ph.D Research – Dr. S. Kannan (July 2015)

Excellence in Ph.D Research – Dr. (Ms) Divya P V (July 2014)

#### 5. R&D Activities

##### 5.1. Sponsored Research

<b>Sponsored Research Projects</b>	
New	13
Ongoing	53
Completed	10
Faculty Involved	30

Department received 13 new sponsored projects with a sanctioned outlay of Rs. 9,55,91,254.

The list of new sponsored projects is as below:

<b>Sr No</b>	<b>PI Name (Prof.)</b>	<b>PI Type</b>	<b>Project Title</b>	<b>Agency Name</b>	<b>Project Code</b>	<b>Start Date</b>	<b>Status</b>
1	Manasa R. Behera	PI	Ensemble Estimation of Flood Risk in A Changing Climate, (EFRaCC).	British Council	14BRITC0 01	23-12- 2014	Project Running
2	Dharamveer Singh	PI	Effects of Reclaimed Asphalt Pavement (RAP) on Rheological Properties of	Council of Scientific and Industrial Research	14CSIR00 2	01-10- 2014	Project Running

			Asphalt Binders				
3	Head, Civil Engineering	PI	State-of-the-art Research Facility for Sustainable Materials and Technologies in Civil Engineering Applications (FIST Program).	Department of Science & Technology	14DST038	01-10-2014	Project Running
	T I Eldho	CPI					
	Satyanarayana Murthy Dasaka	CPI					
	Sauvik Banerjee	CPI					
	R. Balaji	CPI					
	Prakash Nanthagopalan	CPI					
	Dharamveer Singh	CPI					
	D N Singh	CPI					
4	Prakash Nanthagopalan	PI	Experimental investigations on the rheological properties of Limestone Calcined Clay Cement (LC3) paste and concrete	Swiss Agency for Development and cooperation	14EPFL001	15-09-2014	Project Running
5	R. Balaji	PI	The monitoring and simulation of coastal hydrodynamic	Global Innovation & Technology Alliance	14GITA001	10-06-2014	Project Running

			of India and Taiwan				
	Manasa R. Behera	CPI					
6	D N Singh	PI	Development of Low Cost Backfilling (of Mines) Options	HINDUSTAN ZINC LIMITED	14HZL001	17-07-2014	Project Running
*	Kapil Gupta	CPI	CUSE R&D Project - Urban Form and Extreme Precipitation Events: Are compact cities more vulnerable to flooding?	IIT-MHRD Plan Grant for C-USE R&D Projects	14IMHPC U001	04-07-2014	Project Running
*	Nagendra Rao Velaga	CPI	CUSE R&D Project - Optimizing location and capacity of emergency response infrastructure for megacities	IIT-Mhrd Plan Grant for C-USE R&D Projects	14IMHPC U003	04-07-2014	Project Running
*	Nagendra Rao Velaga	CPI	CUSE R&D Project - Effects of real estate undercurrents on urban forms and its emergence as growth machine in Indian Cities.	IIT-Mhrd Plan Grant for C-USE R&D Projects	14IMHPC U006	04-07-2014	Project Running

			Study area Mumbai				
7	Manasa R. Behera	PI	Evaluation and mapping of flooding along Paradip coast due to storms and tides using Numerical modelling and Geo-Spatial Techniques	Indian Space Research Organizatio n	14ISROC0 06	17-06- 2014	Project Running
	R. Balaji	CPI					
	RAAJ Ramsankaran	CPI					
8	D N Singh	PI	Studies on Rejuvenation of PowaiLake: Geotechnical, Hydrographic and Bathymetric Surveys	Municipal Corporation of Greater Mumbai	14MCGM 001	23-04- 2014	Project Running
9	D N Singh	PI	Technical Assistance to curb the pollution in Mithi River, Vakola and other Nalla in Mumbai	Municipal Corporation of Greater Mumbai	14MCGM 002	24-09- 2014	Project Running
10	D N Singh	PI	Geotechnical and geological responses to climate change:Excha nge Approaches and Technologies	Marie Curie International Research Staff Exchange Scheme	14MCIRS ES001	27-06- 2014	Project Running



			on a world-wide scale(GREAT )				
11	Subimal Ghosh	PI	Seasonal Hydrologic Predictions based on Regional Forecasts of Monsoon Rainfall with CWRP and Statistical Downscaling	MINISTRY OF EARTH SCIENCES	14MES002	01-10-2014	Project Running
*	Subimal Ghosh	CPI	Near-Real-Time Urban Flood Forecasting System	MINISTRY OF EARTH SCIENCES	14MES003	01-10-2014	Project Running
	Manasa R. Behera	CPI					
*	Siddhartha Ghosh	CPI	Assimilation of Open Source software in Science and Engineering	Ministry of Human Resource Development	14MHRD003	30-06-2014	Project Running
12	R. Balaji	PI	"NUMERICAL MODELLING OF WAVES AND SEDIMENT TRANSPORT CHARACTERISTICS ALONG PONDICHERRY COAST "	National Institute of Ocean Technology, Chennai.	14NIOT001	17-11-2014	Project Running
	Deo, M. C	CPI					

13	Ravi Sinha	PI	Earthquake Hazard Risk Vulnerability Analysis of Navi Mumbai	Navi Mumbai Municipal Corporation	14NMMC 001	15-01-2015	Project Running
	Alok Goyal	CPI					

### 5.1. Consultancy Work

329 Consultancy projects worth about Rs. 18,34,48,870.65/- were undertaken during the year by the Civil Engineering Department. 29 faculty members were involved in the above consultancy work.

### 5.2. Patents

**Singh D. N** : Synthesis of Higher grade fly ash zeolite X from Fly ash by three step fusion

( Provisional Indian Patent application No. 1631/MUM/2014)

**Mandal J. N**: Encasements prepared with plastic water bottles (Provisional Indian Patent application No. 757/MUM/2015)

## 6.Extension Activities

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

### 6.1. List of QIP Short-Term Courses

Sr. No	Names of Convener	Programme Name	Date	No. of Participants
1	Prof. Y. M. Desai Prof. T. I. Eldho	Finite Element Method and Application in Civil Engineering	May 05 - 09, 2014	30
2	Prof. B. S. Pani	The Musts of Fluid Mechanics	May 26 - 30, 2014	28
3	Prof. Subhankar Karmakar of CESE department and	Hydro-Climate Modeling and Climate Change Impacts Assessment	July 30 - July 4, 2014	30

	Prof. Subimal Ghosh			
4	Prof. R. Balaji Prof. M. R. Behera	Coastal Processes and Modelling	August 04 - 08, 2014	17
5	Prof. RAAJ Ramsankar	GIS for Civil Engineering	December 01 - 05, 2014	29
6	Prof. B. S. Pani	Fundamentals of Fluid Mechanics Through Experiments	December 22 - 26, 2014	27

## 6.2. List of CEP Courses

Sr. No.	Faculty	Course Title	Dates
1	Prof. T. I. Eldho	Finite Element Method & Application in Engineering	May 05 – 09, 14
2	Prof. Subimal Ghosh / Prof. S. Karmakar of CESE department	Hydro-Climatic Modeling & Climate Change Impact Assessment	June 30 – July 04, 14
3	Prof. Kapil Gupta	Urban Drainage Management: State-of-the-Art 2014	July 03 - 05,14
4	Prof. R. Balaji	Coastal Processes and Modelling	Aug. 04 – 08, 14
5	Prof. RAAJ Ramasankaran	GIS for Civil Engineers	Dec. 01 – 05, 05
6	Prof. Subimal Ghosh	Regional Modeling of Climate Change	Jan. 27 – 30, 15

### 6.3. Visitors to the Department and their presentations

Sr. No.	Name and Affiliation	Date	Presentation Topic
1.	Prof.Animesh Das, Department of Civil Engineering, IIT Kanpur.	07 / 04 / 2014	Choosing the best layer thickness combination in asphalt pavement design
2.	Prof.Prabhakar Clement, Auburn University, USA.	22 / 09 / 2014	Dynamics of Saltwater Intrusion in Coastal Aquifers: New Insights
3.	Mr. Heung Lyul Ko, M/s MTS Systems Corporation USA.	26 / 09 2014	General Civil Structural Testing Applications
4.	Dr.Diego Carnaroglio, Milestone. Italy.	07 / 10 / 2014	The lab's microwave synthetic factory: the game changer in microwave – assisted synthesis
5.	Prof. Giuseppe Gambolati, Universita degli Studi Padova Italy	13/10/2014 to 07/11/2014	Distinguished Visiting Professor Expertise: Application of Computational Methods to Civil Engineering Problems
6.	Dr. Nimal Rajapakse, Professor and Dean, Faculty of Applied Sciences, Simon Fraser University, Burnaby, Canada.	16 / 10 / 2014	Mechanical behavior of graphene using molecular dynamics and atomic- scale finite element method
7.	Prof. Sukhvarsh Jerath University of North Dakota, North Dakota	15/12/2014 to 15/05/2015	Visiting Professor (under Fulbright- Nehru scholarship program) Expertise: Solid mechanics and Structural Engineering
8.	Prof. Ikuo Towhata, Department of Civil Engineering, University of Tokyo, Japan.	23 / 12 / 2014	Ageing in liquefaction resistance of sand as detected by case history studies and its application to hazard mapping
10.	Prof. T. G. Sitharam, Department of Civil Engineering, IISc Bangalore.	05 / 01 /2015	Ground improvement using 3D- cellular confinement systems and its applications to foundations in soft soils

11.	Dr Gregory Shahane De Costa, Assoc. Prof., Department of Civil Engineering Faculty of Technology & Built Environment, Unitec Institute of Technology, Auckland, New Zealand	09 / 01 / 2015	Global change and its effect on coastal water resources - Cases of the Asia Pacific Region
12.	Prof. Swaminathan Krishnan, Visiting Professor and former Assistant Professor of Structural Engineering and Geophysics, Caltech	22 / 01 / 2015	Mechanics of Tall Building Collapse under Earthquake Excitation
13.	Dr Robert and Dr Shobhana Madhavan (Joint speaker), University of Westminster, London	24 / 01 / 2015	Infrastructure: its economic and environmental context
14.	Dr. Joseph Fazio, Chicago University, USA.	05 / 02 / 2015 to 01 / 04 / 2015	Visiting Associate Professor Expertise: Traffic Engineering
15.	Prof. S. Jerath, Professor and Graduate Program Director, Department of Civil Engineering, University of North Dakota, Grand Forks, North Dakota, U.S.A.	21 / 04 / 2015	Static and Dynamic Buckling of Cylindrical Tanks
16.	Prof. Raghu Murtugudde, Earth System Science Interdisciplinary Center, University of Maryland	15 / 06 / 2015	ENSO Diversity, Asymmetry and Extremes: A Unifying High-Frequency Driver
17.	Mr. S.K Gupta Director Projects, And Mr. R. Ramana Executive Director Planning, (Joint speaker) Mumbai Metro Rail Corporation Ltd.	01 / 08 / 2015	Mumbai Metro Line 3 - the first Underground Metro Line of Mumbai
18.	Prof. Yusuf Mehta, Rowan University, USA	05 / 08 / 2015	High Reclaimed Asphalt Pavement in Hot Mix Asphalt
19.	Dr Hwa CHIEN,	06 / 08 / 2015	Applications of Microwave Radar remote sensing to coastal erosion

	Assoc. Prof., Institute of Hydrological & Oceanic Sciences, National Central University, Taiwan		detection, nearshore wave and current mapping
20.	Professor Margaret C. Bell, CBE, School of Civil Engineering and Geosciences, Newcastle University, UK.	03 / 09 / 2015	THE CHALLENGES OF DELIVERING SUSTAINABLE TRANSPORT OPTIONS BY 2050

## 7. Participation in Conferences/Symposia/Workshops/Seminars

### Avijit Maji

*Recent Advances in studies of Traffic Engineering* SVNIT Surat 2014-07-04

*8th National Frontiers of Engineering (NatFOE - 8)* IIT Gandhinagar, Ahmedabad 2014-09-05

*Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC)*, IIT Bombay, India 2014-12-11

Conference PC Chair and member of *Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC)*, IIT Bombay.

### Bajoria, K.M

*7th International Conference on Thin Walled Structures*, 2014, Busan, South Korea

### Balaji, R

Delivered two talks and chaired a technical session in the *5<sup>th</sup> Indian National Conference on Harbour and Ocean Engineering (INCHOE 2014)*, NIO, Goa, India

*India-UK scientific seminar on Knowledge transfer seminar*, Organizer, Univ. of Edinburgh, Scotland.

MHRD-TEQIP-KIT Workshop on *Ocean And Atmospheric Sciences "Current Trends,"* Organizing committee member, IIT Bombay.

## **Behera Manasa Ranjan**

Attended and presented in the Summer school on *Climate Science & Policy* at IIT Bombay and in NIO Goa.

*1st Climate Science and Policy Workshop (CSPW)* on 6th & 7th March, 2014, Session Chair, IIT Bombay, India

*Challenges and Opportunities in Interdisciplinary Water Research* at IITB, Participant, IIT Bombay, India on 25 Aug 2014

*MHRD-TEQIP-KIT Workshop on Ocean and Atmospheric Sciences - Current Trends* during 18-19th July 2014," Organizer, IIT Bombay

"*Life extension of offshore structure,*" Participant, MCA Recreation Center, RG-2, Bandra Kurla Complex, Bandra (E), Mumbai.

## **Choudhury, D.**

Delivered talks in :*15th Symposium on Earthquake Engineering* at IIT Roorkee, India 2014-12-12; *Indian Geotechnical Conference (IGC-2014)* JNTU Kakinada, India 2014-12-20; *National Conference on Geotechnical Engineering Practice and Sustainable Infrastructure Development (GEPSID-2014)*; Guru Nanak Dev Engineering College, Ludhiana, India 2014-10-11; *Deep Foundations Institute (DFI) India 2014 Conference*, IIT Delhi, India 2014-09-19; Workshop on *Geotechnical Engineering Practices "Risk and Safety Government College of Engineering, Amravati, India 2014-09-15*; *Deep Foundations Institute Middle East Conference 2014 (DFIMEC-2014)* American University in Dubai (AUD), Dubai, UAE 2014-04-03; *National Seminar on Soil Dynamics and Machine Foundations*, Department of Civil Engineering, CHARUSAT, Changa, India 2014-02-08; *National Seminar on Research Avenues in Geotechnical Engineering*, Department of Civil Engineering, R.V. College of Engineering (RVCE), Bangalore, India 2014-01-27, JNTU Kakinada,

Attended and delivered keynote lecture in the *Proc. Of 15<sup>th</sup> Symposium on Earthquake Engineering* held at IIT Roorkee and during the *Proc. Of Indian Geotechnical Conference on Geotechnics for Inclusive Development of India* held at JNTU Kakinada, India.

## **Dasaka S. Murty**

Organizer of Preconference workshop on *Geotechnical Investigations*, held during Indian Geotechnical Conference, Kakinada, Andhra Pradesh on 17/12/2014.

Attended and presented during the *Indian Geotechnical conference* at JNTU Kakinada, Andhra Pradesh.

## **Deo M. C**

Attended and presented in the seminar on *Advanced Computing*, DRDO, Pune

Attended and presented in the *ICOWRE* at NIT Karnataka and WISE 2014 at NIO Goa.

## **Dharamveer Singh**

Attended, presented, organized and was the conference PC member in *11th Transportation Planning and Implementation Methodologies for Developing Countries*, TPMDC 2014 at IIT Bombay and in the One day workshop on *Bituminous mix technologies* at Darshan Institute of Engineering and Technology, Rajkot.

"*Advancement in Asphalt Testing & Characterization*," Organizer, April 14, 2014. IIT Bombay

Session Chair - Pavements and Materials *11th Transportation Planning and Implementation Methodologies for Developing Countries*, TPMDC 2014

Session Chair Geo-Hubei 2014 *International Conference on Sustainable Civil Infrastructure*

Scientific Committee Member *International Conference, Bituminous Mixtures and Pavements, Thessaloniki, Greece, 2015*

Scientific Committee member: *International Conference on Multidisciplinary Research & Practice (ICMRP – 2014)*, 30/11/2014 at Ahmedabad Management Associate

## **Eldho, T.I.**

Conference PC Chair for the 2 Days Conference on *Water and Wastewater Management with IFAT India "Trade Fair on Water and Waste Water* during 9-11, October 2014 in Mumbai; One Day DST Sponsored Workshop "Web Based Coastal Urban Flood Simulation" IIT Bombay, 11 April 2014, Chairman, *Technical Committee Member of Fourth International Conf. on Hydrology & Watershed Management*, to be held at JNTU Hyderabad in Oct. 2014; Technical Committee Member of International Conf. on *Water Resources, Coastal & Ocean Engineering* held at NIT Surathkal in March. 2015; Co-Chair & Technical Committee Member of International Hydro Conf., to be held at NIT Bhopal in Dec. 2014; Technical Committee Member of *5th National Conference on Emerging Vistas of Technology* in 21st Century, Parul Institute of Technology, Vadodara.

Chaired 3 Sessions in National Seminar on "*Water Conservation and Rain Water Harvesting Techniques*", at IIT Bombay, Mumbai, 14-15 March 2015

Delivered key note lecture at JNTU, Hyderabad and at Parul Institute of Technology, Vadodara.



"National Seminar on Water Conservation and Rain Water Harvesting Techniques, at IIT Bombay, Mumbai, 14-15 March 2015," Co-Convener, IIT Bombay

"Conference on Water and Wastewater Management with IFAT India *“Trade Fair on Water and Waste Water during 9-11, October 2014 in Mumbai,”* Co-Convener, Mumbai.

"One Day DST Sponsored Workshop *Web Based Coastal Urban Flood Simulation,* IIT Bombay, 11 April 2014, Chairman, IIT Bombay

"Workshop on *Adding Sustainability to Engineering Courses* - with Prof. Cliff Davidson (Syracuse University) and Prof. Ted Russell (Georgia Tech.) on 16/01/ Member, IIT Bombay

### **Ghosh Siddhartha**

Participant in the "Steel - The Preferred Choice of Material for Construction," Mumbai, India; *“8th National Frontiers of Engineering,”* Participant, Gandhinagar, India and "Structural Steel Construction Summit," Mumbai, India

Attended and presented in the IC-IMPACTS Workshop on Advances in Sustainable Infrastructure Management Practices in New Delhi; *“Seismic safety assessment of nuclear containments”* in the *“8th National Frontiers of Engineering at IIT Gandhinagar;* and *“Open steel design and graphics: A python based FOSS”* at IIT Bombay.

### **Gupta Kapil**

*"EU International workshop on dissemination of Collaborative Research on Urban Flooding,"* Organizer, IIT Bombay (30th May 2014)

Chaired two sessions at the *13th International Conference Urban Drainage (ICUD) 2014,* 7th - 12th September 2014, Borneo Convention Centre Kuching, Chairman, Malaysia

Workshop on *Urban Risk Reduction and Climate Change Adaptation-17 Oct 2014,* Presenter and participant, New Delhi

*"UNDP National Consultation on Multi Hazard Warning Systems for Urban Areas,* 3 December 2014," Expert, New Delhi

Conference PC Member *XIII International Conference on Urban Drainage,* Sep 2014, Kuching, Sarawak, Malaysia

Member Core Group: NDMA-UNDP Workshop on *Disaster Resilient India-Preparatory meeting on the theme of Flood Management,* April- June 2104

## **Inamdar M**

Attended and presented in the Young Investigators Meeting Soft Matter Puducherry and at the "Cell Physics "conference Saarland University, Saarbrucken, Germany.

## **Jothiprakash, V.**

"River Hydraulics and Management of Indian Rivers, *World Water Day Workshop*, 24th Mar. 2014," Key Note Speaker, SVNIT Surat, India.

"Brainstorming Session With MCGM Officials, *C-USE Workshop*, 19th April, 2014," Speaker, IIT Bombay

"Two days National Conference on Water, Environment & Society (NCWES-2014), Jun 30th, Jul 1st, 2014," Key Note Speaker, JNTU, Hyderabad, India

"Comprehension, Learning and Instructional Design, 14th July 2014," Speaker, IIT Bombay,

"Workshop on Challenges and Opportunities in Interdisciplinary Water Research, August 25th 2014, by Industrial Research and Consultancy Centre Speaker, IIT Bombay

Conference PC Chair on Hydro Power, Biodiversity, Catchment Treatment and EIA, Two days National Conference on Water, Environment & Society; Session on Challenges and Opportunities in Interdisciplinary Water Research August 25th 2014, Industrial Research and Consultancy Centre;

Member, Advisory Committee, National Conference on Challenges of Water Resources and Environmental Management (NCCWE 2014), Jan. 27-28, 2014; National Conference Tech Streams SM, 21st & 22nd Feb 2014, Pillai HOC College of Engineering & Technology, Rasayani; One Day Workshop on River Hydraulics and Management of Indian Rivers, Mar. 22, 2014, SVNIT Surat, India; National Technical Advisory Committee, National Conference on Advance in Civil and Structural Engineering (NCACSE-2014), 18-19 April 2014; International work-conference on Time Series (2014), 25-27-July, 2014, Granada, Spain; Member, National Technical Advisory Committee, 19th International Conference on Hydraulics, Water Resources, Coastal & Environmental Engineering at Hyderabad.

## **Krishna Rao, K.V.**

Conference PC Member for the 11th International Conference "Transportation Planning and Implementation Methodologies for Developing Countries" held during 10-12 December 2014 and for CODATU 2015 held during 2-5 February 2015 at Istanbul, Turkey.

*Transportation Planning and Implementation Methodologies for Developing Countries*, 10-12 December 2014," Member, Organizing Committee and Scientific Committee, IIT Bombay, Mumbai

Attended and presented in the 30<sup>th</sup> National Convention and National seminar on the theme *Sustainable urban development by the Institution of Engineers (India)* and at TPMDC 2014 IIT Bombay

Attended and presented in the review workshop of Indian Highway Capacity Manual Research project (RIHCAM) Chennai.

### **Laskar Arghadeep**

ASME 2014 Pressure Vessels and Piping Division Conference, 2014, Anaheim, California, USA

### **Patil G. R**

Conference PC Chair in *Transportation Planning and implementation Methodologies for Developing Countries (TPMDC) 2014*

Attended and presented a talk in the Mini-seminar on Transportation Engineering IIT Kanpur "*Transportation Planning and Implementation Methodologies in Developing Countries (TPMDC) 2014*," Secretary, IIT Bombay

"*Indo-US workshop on Urban Freight Modeling: A Global Perspective*," Coordinator, IIT Bombay

"*3rd Conference of Transportation Research Group of India*," Scientific Committee Member, Kolkata

### **Prakash Nanthagopalan**

"Achieving Durable Concrete Construction Through Performance Testing," Organizer, IIT Bombay - February 1, 2014

"Concrete and Construction Materials Research," Workshop – IIT B and Aalto University IIT Bombay 2014.

### **RAAJ Ramsankaran**

Session Chair in Hydro 2014 International Conference held at NIT Bhopal

**Singh, D. N.**

Novel Methods for Determination of Distribution Coefficient of Geomaterial-contaminant System.," *19th National Symposium on Environment (NSE-19)*, Kottayam. , 2014-12-13

"Bio-Geointerface: Important tool in contemporary geotechnical engineering practices." *India-Norway Workshop on Bio-Economy*, Delhi., 2014-11-21

"*Monitoring and Simulation in Geoenvironmental Engineering*," Conference on Geo-Innovations, I.I.Sc. Bangalore, 2014-10-30

"*Monitoring and Simulation of Contaminant Transport in Geoenvironment*," Jadavpur Univ., Kolkata. , 2014-10-20

"*Innovation & Entrepreneurship in Geotechnical Engineering*," SVNIT Surat, October 2014

"*Geoenvironmental Issues Related to Nuclear Waste Disposal: Monitoring and Simulation*," The International Conference on Advancements in Materials, Health and Safety towards Sustainable Energy & Environment MHS-2014, Chennai, 2014-8-7

"*Advances in Geotechnical Engineering*," Rajeev Gandhi Prodyogiki Vishwa Vidyalaya, Bhopal,

"*Geoenvironmental Engineering: Genesis and Scope*," SVNIT, SURAT,2014-3-11

"*Geoenvironmental Engineering*," S.V.C.E., Tirupati, --

**Tom. V. Mathew,**

Transportation Planning and Implementation Methodology (TPMDC-2014)," Organising Vice-Chairman, IIT Bombay

Conference PC Chair Transport Research Group of India and Transportation Planning and Implementation Methodologies 2014.

**Vedagiri P.**

Member of organizing committee for International conference, Transportation Planning Methodologies and Implementation for Developing Countries (TPMDC) towards sustainability, IIT Bombay 10 - 12 December,2014. [2] Coordinator 6th National Civil Engineering Students Symposium (AAKKAR), March 2014, Civil Engineering Association, IIT Bombay

## 8. Invited Lectures

### Avijit Maji

Delivered four Invited Conference talks on "Fundamentals of Geometric Design of Different Roadway Elements," *Recent Advances in studies of Traffic Engineering* SVNIT Surat 2014-07-04; "Geometric Design Consistency and Road safety," *Recent Advances in studies of Traffic Engineering* SVNIT Surat 2014-07-04; "Geometric Design Consistency and Road Safety," *8th National Frontiers of Engineering (NatFOE - 8)* IIT Gandhinagar, Ahmedabad 2014-09-05; and "Highway Geometric Design and Safety," *Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC IIT Bombay, India* 2014-12-11

Invited Research talk on "Intersection Design to Improve Transit Mobility at Intersection under Flyover," *Transportation Research Board 93rd Annual Meeting* Washington, D.C., USA 2014-01-15

### Balaji R

Two invited conference talks on "Assessment of Shoreline Oscillations along South Gujarat Coastline, India,," *5th Indian National Conference on Harbour and Ocean Engineering (INCHOE 2014)*, NIO, Goa, India 2014-02-05; and "Monsoon induced beach profile changes along South Gujarat coastline, *5th Indian National Conference on Harbour and Ocean Engineering (INCHOE 2014)*, NIO, Goa, India 2014-02-06

### Behera Manasa R

Invited Conference talk on "Numerical modelling with applications in coastal engineering," *Summer School on Climate Science & Policy* IIT Bombay 2014-07-09

Invited Research talk on "*Basics and complexities of Computational Modelling pertaining to Ocean and Coastal Hydrodynamics,*" NIO Goa Goa 2014-08-22

### Choudhury, D

On "Pile foundations during earthquakes in liquefiable soils theory to practice," *15th Symposium on Earthquake Engineering (15SEEâ€“2014)*, IIT Roorkee, India 2014-12-12

On "Recent developments in design of waterfront retaining structures to withstand earthquake and tsunami, *Indian Geotechnical Conference (IGC-2014)*, JNTU Kakinada, India 2014-12-20

Delivered conference talk on "Lessons from Landslide Disaster - Geotechnical Field Experience At Malin, Pune," *National Conference on Geotechnical Engineering Practice and Sustainable Infrastructure Development (GEPSID-2014)* Guru Nanak Dev Engineering College, Ludhiana, India 2014-10-11

On "Activities of ISSMGE Technical Committee TC 212 on Deep Foundations," *Deep Foundations Institute (DFI) India 2014 Conference* IIT Delhi, India 2014-09-19

On "Combined Pile-Raft Foundation Theory to Practice for Safer Foundation Solution," *Workshop on Geotechnical Engineering Practices " Risk and Safety* Government College of Engineering, Amravati, India 2014-09-15

On "Earthquake Resistant Design of Tailing Dams and Pile Foundations: Theory to Practice," *Deep Foundations Institute Middle East Conference 2014 (DFIMEC-2014)* American University in Dubai (AUD), Dubai, UAE 2014-04-03

On "Soil Dynamics," *National Seminar on Soil Dynamics and Machine Foundations* Department of Civil Engineering, CHARUSAT, Changa, India 2014-02-08

On "Advances in Research at IIT Bombay: Sustainable Foundation Solutions for Buildings to Mitigate Earthquake Disasters," *National Seminar on Research Avenues in Geotechnical Engineering* Department of Civil Engineering, R.V. College of Engineering (RVCE), Bangalore, India 2014-01-27

On "Geotechnical Case Studies Using Numerical Modelling," *Workshop on Geotechnical Designs Through Finite Element Analysis, organized jointly by M/s Ram Caddsys, Chennai and Indian Geotechnical Society, JNTU Kakinada, India* 2014-12-17

On "Geotechnical Earthquake Engineering – Theory to Practice at IIT Bombay," *Department of Seismology and Tectonophysics, Istituto Nazionale di Geofisica e Vulcanologia (INGV) and Dipartimento di Ingegneria Civile, Edile – Archite* INGV, L'Aquila, Italy 2014-06-25

On "Research and Practice on Geotechnical Earthquake Engineering at IIT Bombay," *Institute of Geotechnik, TU Bergakademie Freiberg, Gustav-Zeuner-Strasse 1, 09596 Freiberg, Germany* TU Freiberg, Germany 2014-06-11

On "Recent Advances in Foundation and Geotechnical Earthquake Engineering," *Indian Geotechnical Society Kanpur Chapter and Geotechnical Engineering Group of Department of Civil Engineering, Indian Institute of Technology Kanpur, IIT Kanpur, India* 2014-04-11

On "Future of Foundation Engineering and Research Ethics," *Gujarat Technological University (GTU), Gandhinagar, India* VGEC, GTU, Gandhinagar, India 2014-04-07

On "Design of Combined Pile-Raft Foundation (CPRF) in Alluvial Sites," *Discussion Meeting on Engineering on foundations for NPP structures in alluvial soils, organized by Siting & Structural Engineering Div. (SSED), AERB AERB, Anushaktinagar, Mumbai, India* 2014-01-24.

### **Dasaka S Murthy**

On "Role of uncertainty in geotechnical engineering – a way forward," *Indian Geotechnical Conference*, JNTU Kakinada, Andhra Pradesh.

### **Deo M. C**

Delivered three invited conference talks on "Climate Change," *ICOWRE*, NIT Karnataka 2014; "Neural networks," *WISE 2014* NIO Goa 2014; and "soft computing applications," *Seminar on Advanced Computing* DIAT, DRDO, Pune .

### **Dharamveer Singh**

On Emerging Technologies for Construction and Quality control of Pavements," *11th Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC 2014* IIT Bombay 2014-12-11

On "Bituminous Mix Design and Desirable Properties," *One Day Workshop on Bituminous Mix Technologies*, Darshan Institute of Engineering and Technology, Rajkot 2014-08-

### **Eldho T. I**

On "Watershed Based Flood Modeling Using Finite Element Method and Geospatial Techniques," *National Conference on Emerging Vistas on Technology in 21st Century*, Parul Institute of Technology, Vadodara, Parul Institute of Technology, Vadodara 2014-04-04

On "Groundwater Pollution Remediation Design Using Simulation Optimization Models," *International Conference on Water from Pollution to Purification* Kottayam, Kerala 2015-01-03

On "Flood Management in Coastal Cities Using GIS, Remote sensing Numerical Models," *2nd International Conf. on Materials, Mechanics Management* Trivandrum, Kerala 2014-12-17

On "Watershed Based Integrated Modelling Approach for Hydrological Simulation Using Numerical Models and Geospatial Techniques," *4th International Conference on Hydrology and Watershed management* Jawaharlal Nehru Technological University, Hyderabad 2014-10-31

On "Groundwater Contamination Problems and Remediation," *Indian Water Congress, Organized by GH Patel College of Engineering & Technology*, Anand, Gujarat 2014-02-07

On "Climate Change Impacts and Water Resources Management," *International Workshop on Loss of Land Surface and Changes to Water Resources Resulting from Sea Level Rise and Climate Change*, Colombo, Sri Lanka 2014-01-21

On "Smart Cities: Smart Water Solutions," *International Conference on Smart City: Smart Solutions* The Orchid Hotel, Mumbai 2015-02-12

Invited research talk on "Rainfall runoff & flood modeling Using Numerical Models and Geospatial Techniques," *College of Engineering Trivandrum, Kerala* 2014-12-17

On "Integrated Watershed Modelling Using Numerical Models and Geospatial Techniques," *Department of Civil Engineering, M.S. University, Vadodara, Gujarat* 2014-11-10

On "Computational Fluid Dynamics – Research Areas and Scope," *College of Engineering, Adoor Adoor, Kerala* 2014-10-24

On "Urban Planning in India - Challenges and Solutions," *IFAT-India, leading Trade Fair on Water and Waste Water Mumbai* 2014-10-10

On "Indian Standards in wastewater treatment - an overview," *IFAT-India, leading Trade Fair on Water and Waste Water Mumbai* 2014-10-11

**Ghosh Siddhartha**

Invited Conference talks on "Model updating with Bayesian Markov chain Monte Carlo simulation," *IC-IMPACTS Workshop on Advances in Sustainable Infrastructure Management Practices New Delhi, India* 2014-02-05

On "Seismic safety assessment of nuclear containments," *8th National Frontiers of Engineering (8NatFOE) IIT Gandhinagar, India* 2014-09-05

On "Open steel design and graphics: A python-based FOSS," *SciPy India IIT Bombay, India* 2014-12-07

Invited research talk on "Management of corroding RC structures using health monitoring data," *SSE Division of Atomic Energy Regulatory Board Mumbai, India* 2014-02-20

**Ghosh, Subimal**

Invited research talk on "Indian Monsoon in Changing Climate," *Indian Institute of Remote Sensing Dehradun, 2014-06-11*

**Inamdar, M**

Invited Conference Talks on "Role of thermal fluctuations in mechanical stability of microtubules," *Young Investigators Meeting Soft Matter Puducherry* 2014-01-03

Invited Research Talks on "Mechanical modelling of collective sheet migration," *Cell Physics Conference Saarland University, Saarbrucken, Germany* 2014-09-22



## **Jothiprakash, V**

On "Reservoir Optimization Using Hybrid Chaotic Genetic Algorithm," *Workshop on River Hydraulics and Management of Indian Rivers, World Water Day Workshop* SVNIT Surat 2014-03-24

On "Chaotic Analysis of Daily Wind Speed Data (Key Note address)," *Two days National Conference on Water, Environment & Society (NCWES-2014)*, JNTU, Hyderabad 2014-06-30

On "Soft Computing Tehniques in Rainfall-Runoff Modeling," *QIP/CEP Course on Coastal Processes and Modelling* IIT Bombay 2014-08-06

On "Road Drainage â€™ Techniques of surface and sub-surface drainage," *Refresher cum orientation course on Road Works for BMC Engineers*, IIT Bombay 2014-08-08

On "Road Drainage â€™ Techniques of surface and sub-surface drainage," *Refresher cum orientation course on Road Works for BMC Engineers*, IIT Bombay 2014-08-19

On "Stochastic Hydrology-1," *Short Term Training Programme on Modelling Impact of Climate Change on Water resources* SVNIT, Surat 2014-12-08

On "Stochastic Hydrology-2," *Short Term Training Programme on Modelling Impact of Climate Change on Water resources* SVNIT, Surat 2014-12-08

## **Krishna Rao K V**

On Sustainable urban transportation through transit oriented development," *30th National Convention and National Seminar on the theme â€™SUSTAINABLE URBAN DEVELOPMENT"* The Institution of Engineers (India), Maharashtra State Centre, Mahalaxmi, Mumbai 2014-10-18

On "Estimation of Demand for Transportation Infrastructure Projects in Mumbai Metropolitan Region," *Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC-2014* IIT Bombay, Mumbai 2014-12-11

On "Capacity and Level of Service of Signalised Urban Intersections," *Review Workshop of Indian Highway Capacity Manual Reserarch Project (RIHCAM)* Chennai 2014-03-29

On "Data collection methodology for signalised urban intersections," *Review Meeting of the project titled, Development of Indian Highway Capacity Manual (Indo-HCM)* CRRI, New Delhi 2014-08-02

## **Mandal J N**

On "Bearing Capacity Improvement on Soft Soil using Expanded Polystyrene (EPS) Geofoam,"

*10th International Conference on Geosynthetics, Berlin, Germany 2014-09-23*

On "Stabilization of Fly Ash Slope using Plastic Recycled Polymer," *2nd International Conference on Materials Mechanics and Management (IMMM 2014)* College of Engineering Trivandrum, India 2014-12-18

On "Design Charts for Flexible Airfield Pavement Based on Analytical Study," *11th International Conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC)*, Indian Institute of Technology Bombay, Powai, Mumbai, India 2014-12-11

### **Patil, G. R**

On "Modelling Multiple Simultaneous Disruptions on Urban Transportation Networks," *Mini-seminar on Transportation Engineering*, Indian Institute of Technology Kanpur 2014 11-06

### **Prakash Nanthagopalan**

On "Construction Materials Research at IIT Bombay," *Concrete Research Forum* IIT Madras 2014-05-10

"Concrete and Construction Materials Research ," *Workshop - IIT B and Aalto Univeristy* IIT Bombay 2014-04-08

### **Rastogi, A. K**

Invited research talk on "Simulation Optimisation Modeling to Generate Parameters for Aquifer Dispersion," *International conference on modeling and simulation of diffusive processes and applications* BHU Varanasi 2014-10-30

### **Viswanadham, B. V. S**

On "Tensile strength and permeability behaviour of soil barrier material with and without polyester fibers," *7th international conference on environmental geotechnics* melbourne australia 2014-11-14

On "Gas permeability of soil barriers of landfill cover system subjected to deformation," *7th international conference on environmental geotechnics*, Melbourne, Australia 2014-11-12

On "Centrifuge model studies on the performance of hybrid geosynthetic reinforced soil slopes/walls," *iisc bangalore and karnataka geotechnical society* IISc Bangalore 2015-4-2

On "Centrifuge-based geotechnical centrifuge modelling," *SVNIT SURAT*, 2014-12-28

On "Centrifuge modelling of ground improvement techniques," *SVNIT SURAT* surat 2014-12-28

On "Centrifuge-based geotechnical physical modelling: pile foundations," *NIT TRICHY trichy* 2015-5-4

On "Studies on slope stability analysis of ash pond dams," *raichur thermal powerstation Raichur*, 2015-05-21

On "Performance of composite covers of landfills subjected to differential settlements: centrifuge study," *Indian Geotechnical Society Kakinda, JNTU kakinada* 2015-10-4

## **9. Honorary Work**

### **Avijit Maji**

Conference PC Chair Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC), IIT Bombay, India

Conference PC Member Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC), IIT Bombay, India

Reviewer Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC), IIT Bombay, India

Reviewer Transportation Research Board's 93rd Annual Meeting 2014, Washington D.C., USA

External Examiner to evaluate M.Tech. Project Evaluate MTech projects and award grades

Research Panel Member: "Evaluating the performance of corridors with roundabout" funded by National Cooperative Highway Research Program (NCHRP), USA and "Workzone crash characteristics and countermeasure guidance" funded by National Cooperative Highway Research Program (NCHRP), USA

Committee member: "Operational Effects of Geometrics committee"

Member of DPGC, Department Renovation Committee and Ph.D Award Committee

### **Bajoria, K. M**

Chairman Indian Association for Structural Rehabilitation (ASTR)

Faculty System Administrator

Member of Computer and Communication Committee

**Balaji, R**

Conference PC Member: Chair, technical session, 5th Indian National Conference on Harbour and Ocean Engineering (INCHOE2014), 5-7 Feb, NIO, Goa.

Reviewer : Indian Journal of Marine Sciences (IJMS) and ISH Journal of hydraulics

External Ph.D Thesis Examiner for one Ph.D Thesis from Andhra University

Member of DUGC, Department Computer Committee and member secretary of DFM

**Behera, Manasa R**

Reviewer: International Journal of Ocean and Climate systems, ISH Journal of Hydraulic Engineering, Journal of Hydro-environment Research

MHRD Member Expert for selection of candidates for the award of Commonwealth Scholarship/Fellowship Plan, 2015 offered by the Government of United Kingdom

Member of DCCC, PGC, Cluster Committee for Climate Studies, Anti-Ragging squad, Associate faculty in IDP Climate studies.

Previous positions held: B.Tech 2014 Faculty advisor, Department Time Table Coordinator, Department BTP Coordinator, Department Faculty Coordinator TECHCONNECT 2014

**Chandiramani, N. K**

External Ph.D Thesis Examiner, August 2014, Dept of Mechanical Engg, IIT Kharagpur, Constitutive Models and Finite Element Computations, Prasun Jana

GATE chief paper setter for Solid Mechanics part of XE paper August 2015 at IIT Bombay, October 2015 at IIT Roorkee.

In –Charge Experimental mechanics lab, Dept. of Civil Engg.

**Choudhury, D**

Journal Editor: Indian Geotechnical Journal (ISSN: 0046-8983), Springer, Disaster Advances

(ISSN: 0974-262X, Impact Factor: 2.272/2012), International Journal of Geotechnical Earthquake Engineering (IJGEE) (ISSN: 1947-8488), Electronic Journal of Geotechnical Engineering (EJGE) (ISSN: 1089-3032).

Reviewer: Several international and national journals and conferences of Geotechnical Engineering and Earthquake Engineering.

Conference PC Member: Technical Committee Member, Reviewer for Deep Foundation Technologies for Infrastructure Development in India, (DFI India 2014).

External Ph.D Thesis Examiner for 3 Ph.D Thesi.s

MHRD Review Committee Member for IIT Patna.

Organizing Vice Chairman of IIT-JEE (Advanced) 2015.

Convener, Administrative Policy Committee, IIT Campus and KG School

Member of UGPC and DPC

### **Dasaka, S Murthy**

Reviewer: several manuscripts submitted to the Indian Geotechnical Journal, International Journal of Geomechanics, Sadhana - Academy

Organizer - Preconference Workshop: Preconference Workshop on Geotechnical Investigations, held during Indian Geotechnical Conference, Kakinada, Andhra Pradesh, 17th December, 2014

External Ph.D Thesis Examiner of one Ph.D Thesis from VTU, Belgaum, Karnataka.

Warden, Hostel-2

Convener, Anti-Ragging Squad

### **Deo, M. C**

Journal Editor: Chief Editor, ISH Journal of Hydraulic Engineering, Taylor and Francis, Chief Editor, International Journal of Ocean and Climate Systems, Multi-Science, UK [3] Editorial Board Member, Applied Ocean Research, Elsevier, 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

External Ph.D Thesis Examiner: Acted as Ph D thesis examiner of 8 Universities/Institutes:

IIT Madras, IIT KGP, I I Sc Bangalore, NIT Karnataka, NIT Nagpur (2), NIT Rourkela, IITM Pune

Advisor (e.g. to Govt. of India): Member, Maharashtra Coastal Zone Regulation Authority, Member, Governing Council, CWPRS, Pune, Member, Technical Advisory Committee, CWPRS, Member, Project Management Board, NIOT, Chennai & Member, Research Advisory committee, ICMAM, MoES, Chennai, Member, Hydrology pr., BoG SPCE, IRS Tech Adv. Committee, RAC of NIOT Chennai,

Scientists selections at CSIR-NIO, Indian Society for Hydraulics Awards Committee, Referee of UEPRCS, Faculty selection of NTU

Member of Committee: Grievance, Compassionate ground, Paper setter of A R selection exam

Chairman, Member of Committees: DPC, DRIFC, Ph.D Thesis award, Ph.D Confirmation

### **Desai, Y. M**

Reviewer For several papers submitted to international journals

Journal Editor Serving on the Editorial board of an international journal

External Ph.D Thesis Examiner at various universities

Internal Ph.D Defense Examiner For large number of students

Advisor (e.g. to Govt. of India ) Serving on Several Committees

Helping NBA with accreditation of several engineering institutes

### **Dharamveer Singh**

Conference PC Member: 11th Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC 2014

Session Chair - Pavements and Materials: 11th Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC 2014, Geo-Hubei 2014 International Conference on Sustainable Civil Infrastructure

Scientific Committee Member: International Conference, Bituminous Mixtures and Pavements, Thessaloniki, Greece, 2015

Member H-6 Committee on Road Maintenance and Asset Management, India Road Congress

Reviewer Technical Proposal Reviewer, Department of Science and Technology (DST), New Delhi

Scientific Committee Member: International Conference on Multidisciplinary Research & Practice (ICMRP-2014), 30th November 2014 at Ahmedabad Management Association

Reviewer ASCE: International Journal of Geo-mechanics (IJOG), ASTM: Journal of Testing and Evaluation (JOTE), ASCE: Journal of Performance of Constructed Facilities, International Journal of Pavement Research and Technology (IJPRT), 6th International Conference, Bituminous Mixtures and Pavements, Thessaloniki, Greece, Elseviers Construction and Building Materials, 3rd Conference of Transportation Research Group of India  
Journal Editor Innovative Infrastructure solutions, Springer Publisher

Member of Time Table Committee and Laboratory Training for staff and students

### **Eldho, T. I**

Journal Editor: International Journal of Ecology and Development, ISH Journal of Hydraulic Engineering, Published by Taylor & Francis, UK., International Journal of Water Resources and Environmental Management, Journal of Ground Water Research, AGGS.

Editorial Board Member: Journal of Indian Water Works Association, Journal of Indian Water Resources Society.

Conference PC Chair: 2 Days Conference on Water and Wastewater Management with IFAT India ‘Trade Fair on Water and Waste Water during 9-11, October 2014 in Mumbai; One Day DST Sponsored Workshop ‘Web Based Coastal Urban Flood Simulation’, IIT Bombay, 11 April 2014, Chairman; Chaired 3 Sessions in National Seminar ‘Water Conservation and Rain Water Harvesting Techniques’, at IIT Bombay , Mumbai, 14-15 March 2015; Technical Committee Member of Fourth International Conf. on Hydrology & Watershed Management, to be held at JNTU Hyderabad in Oct. 2014; Technical Committee Member of International Conf. on Water Resources, Coastal & Ocean Engineering, to be held at NIT Surathkal in March. 2015; Co-Chair & Technical Committee Member of International Hydro Conf., to be held at NIT Bhopal in Dec. 2014; Technical Committee Member of 5th National Conference on ‘Emerging Vistas of Technology in 21st Century, Parul Institute of Technology, Vado.

Reviewer: Journal of Advances in Water Resources, Journal of Sadhana, Indian Academy of Sciences, Journal of Water Management, Institution of Engineers, UK, Journal of Water Resources Management, International Journal of Engineering Analysis with Boundary Elements,

International Journal of Water, Air & Soil Pollution, ASCE Journal of Irrigation and Drainage, ASCE Journal of Hydrologic Engineering, Journal of Environmental Modeling & Software, ISH Journal of Hydraulics Engineering, Journal of Institution of Engineers (India) ' Civil Engineering Section, Journal of Earth System Science, Journal of Pedosphere, Journal of Geological Survey of India, Agricultural Water Management, Environmental earth Sciences, Journal of Indian Water Works Association, Journal of Geomorphology, Journal of Catena, Current Sciences, Hydrological Processes.

Conference PC Chair: "Smart Cities: Smart Water Solutions," International Conference on Smart City: Smart Solutions, Organized by NGO.

Internal Ph.D Defense Examiner of 3 Ph.D Thesis and External Ph.D Examiner of 9 Ph.D thesis. Research proposal reviewer of MOES, DST.

Member, Board of studies: Academic revision, Sardar Patel College of Engineering, Mumbai  
Interview board member for faculty selection NIT Silchar, PDPU Ahmedabad, IIT-RAM, Gandhinagar.

Judge : Tata Trust Competition- Innovative technique in wastewater Dept. MCGM, Mumbai  
Chairman Board of Governors, College of Engineering, Adoor Kerala state appointed by Kerala State Government

Committee member: BIS

Positions held: Convener (UGAPEC), Group head (Water Resources division, Dept. of civil engg.), Faculty in charge of hydraulics lab.

Member of CEP/QIP, Security committee, DPC, Admission M.Tech/Ph.D, DUGC, Ph.D Confirmation.

## **Ghosh, Siddhartha**

Editorial board member: International Journal of Masonry Research and Innovation

Reviewer: Engineering Structures, Journal of Structural Engineering, ASCE, Sadhana: Academy Proceedings in Engineering Sciences, Structural Engineering Convention 2014, Project proposals to SERB, DST

Expert Member: Atomic Energy Regulatory Board's (AERB) Committee CESC-WG1



External Expert: Homi Bhabha National Institute's (HBNI) panel of examiners for PhD progress seminars

Committee Member: Bureau of Indian Standards, Committee CED 7 on Structural Steel

External Expert: PhD progress review committee of students in VJTI, Mumbai

Examiner: Masters thesis from VJTI, Mumbai and Masters thesis from SPCE, Mumbai

Professor in Charge of Experimental Mechanics laboratory

Member of DPC, DPGC, DCCC.

### **Ghosh, Jaydipta**

Reviewer: Journal of Bridge engineering, Journal of Earthquake engineering, Journal of Structural engineering

### **Ghosh, Subimal**

Journal Editor: Associate editor of JESS

External Ph.D examiner: IIT Kanpur, Department of Civil Engg.

### **Gupta, Kapil**

Editorial Committee Member Urban Water Journal

Conference PC Member XIII International Conference on Urban Drainage, Sep 2014, Kuching, Sarawak, Malaysia

Reviewer XIII International Conference on Urban Drainage, Sep 2014, Kuching, Sarawak, Malaysia

Advisor (e.g. to Govt. of India ) Member and Convener, Expert Committee on Urban Flooding, NDMA (Govt of India), New Delhi

External Ph.D Thesis Examiner University of South Australia, Adelaide, Australia; University of Technology, Sydney, Australia

Member Core Group: NDMA-UNDP Workshop on Disaster Resilient India-Preparatory meeting

on the theme of Flood Management April- June 2104

Advisor (e.g. to Govt. of India ): Honrary Advisor for the Govt of Assam and the GMDA for setting up of Automatic flood warning system for Guwahati

### **Inamdar M**

Reviewer: Journal of Mechanics and Physics of Solids

Member of DPC, DPGC, IDPC, CRNTS

### **Janga Reddy Manne**

Reviewer: ASCE Journal of Water Resources Planning & Management, ASCE Journal of Hydrologic Engineering, Hydrological Sciences Journal, Journal of Hydrology, Water Resources Research, Stochastic Environmental Research and Risk Assessment, IE (India) Journal of Civil Engineering, book chapters for book titled "Advanced Computational Techniques for Simulation-Based Engineering", for IGI publications

Internal Ph.D Defense Examiner for one Ph.D student

Faculty advisor for M.Tech (WRE)

Member of DPGC

### **Jangid, R.S**

Reviewer: Earthquake engineering and engineering vibration, Earthquakes and structures, Structure and infrastructure engineering.

Member of RIFC, DRIFC

### **Jothiprakash, V**

Associate Editor (Co-Chairman) ISH Journal of Hydraulic Engineering, Taylor & Francis, UK  
Conference PC Chair: Chairman, Session on Hydro Power, Biodiversity, Catchment Treatment and EIA, Two days National Conference on Water, Environment & Society (NCWES), Chairman, Session on Challenges and Opportunities in Interdisciplinary Water Research August 25th 2014, Industrial Research and Consultancy Centre

Conference, Technical Advisory Committee: Member, Advisory Committee, National Conference on Challenges of Water Resources and Environmental Management (NCCWE 2014), Jan. 27-28, 2014,

Conference PC Member: Member, Advisory Committee, A National Conference Tech Streams SM, 21st & 22nd Feb 2014, Pillai HOC College of Engineering & Technology, Rasayani,

Conference PC Member: Member, Advisory Committee, One Day Workshop on River Hydraulics

and Management of Indian Rivers, Mar. 22, 2014, SVNIT Surat, India.; Member, National Technical Advisory Committee, National Conference on Advance in Civil and Structural Engineering (NCACSE-2014), 18-19 April 2014, Dep; Program Committee Member, International work-conference on Time Series (2014), 25-27-July, 2014, Granada, Spain; Member, National Technical Advisory Committee, 19th International Conference on Hydraulics, Water Resources, Coastal & Environmental Engineering.

Reviewer Reviewed as many as more than 25 research papers from various international and national journals.

Advisor (e.g. to Govt. of India ): Subject Expert Advisor in the Mandovi River Tribunal, Public Works Department, Government of Goa, from 2014 onwards, Centre for Excellence in Flood Management, SVNIT Surat from 2012 to 2015, Expert Member, Technical Advisory Committee (TAC) " Mumbai Water Distribution Improvement Programme" Municipal Corporation of Greater Mumbai

Executive Council Member (2012-2014): Indian Society for Hydraulics (ISH), Pune

External Ph.D Thesis Examiner to several Ph.D students from various colleges.

NSS Coordinator and member of Committee: IRCC Advisory Committee for 2014-2017, ARC, Standing Committee on Green campus initiative, Academy office Awards selecting committee, Republic day celebration committee for year 2011, 2012, 2013, 2014, 2015, Committee for the green office, SSC in HSS Dept. Member of Interdisciplinary programmes committee in C-USE. Member of DPC, DPGC, Ph.D and M.Tech selection committee

### **Juneja, A**

Reviewer: Journal of Materials in Civil Engg, ASCE; Ground Improvement ICE, Soils and Foundations JGS, Canadian Geotechnical Journal, Geotechnical and Geological Engineering, International Journal of Rock mechanics and mining sciences, Geomechanics and Engineering, HKIE Transactions, Indian Geotechnical Journal, Journal of Civil Engineering of Institution of Engineers (India), Current Science.

Examiner: M.Tech thesis from NIT Kurukshetra, Haryana

Core member ATC-18 "Deep excavations and mega foundations" of ISSMGE

Core member ATC- "Urban GeoEngineering" of ISSMGE

Member TC 305 "MegaCities" of ISSMGE

Member: DPGC

### **Krishna Rao, K. V**

Conference PC Member:for the 11th International Conference "Transportation Planning and

Implementation Methodologies for Developing Countries" held during 10-12 December 20 and for CODATU 2015 held during 2-5 February 2015 at Istanbul, Turkey

Reviewer of manuscripts submitted to Indian Geotechnical Journal, Travel Behaviour and Society, and few papers submitted to TRB Annual Meeting, 11-15, January 2015

Member of Permanent Scientific and Technical Committee (PSTC) of CODATU to advise the Board on identifying critical issues of reserach and application

Member, Expert Advisory Group (EAG) for the review of 12th Five Year Plan Network Project on Development and Application of Technologies for Sustainable Transportation

Member, Expert Committee on Fast Track for Young Scientists (Start-Up Grant) - Engineering Sciences, DST for review of reserach proposals submitted  
External Expert Member on the Evaluation Committee constituted for the selection of General Consultant for Metro Line III by Mumbai Metro Rail Corporation, MMRDA

External Ph.D Thesis Examiner for the thesis of Mr.Janjannam Durga Prasad entitled " Knowledge and Data Integration, and Building Bayesian Network by Engineering the Complexities in

External Ph.D Thesis Examiner for the thesis entitled "Modelling and Impact Assessment for an International Airport" submitted by Shri Arun Kumar Mishra to University of Mumbai.

Chairman, Expert Committee appointed by MSRDC for the evaluation of work done in Integrated Road Development Project of Kolhapur

External Ph.D Thesis Examiner for the thesis entitled "Traffic Congestion Measurement and Mitigation on Urban Arterials" submitted by Shri A Mohan Rao to IIT Delhi

Member, Standing Techncial Advisory Committee on Roads, Bridges and Traffic, Municipal Corporation of Greater Mumbai

Head of the Department, Traffice and Transportation Planning Committee, Chairman of DUGC, DPGC, DPC.

### **Laskar, A**

Reviewer in the following journals: ASCE Journal of Structural Engineering, Engineering Structures, Journal of Construction Management, NICMAR Journal of Construction Management.

External Ph.D Thesis examiner for 2 thesis from University of Houston.

Faculty advisor for 2014-2018 batch of Civil UG Students.

Member of Anti-Ragging Committee.

**Nagendra Rao Velaga**

Member of DCCC, Secretary of Civil Engg. PG admissions committee

**Patil, G. R**

Reviewer: Transportation Research Part A, Transport metrica, Transportation Research Record, Networks and Spatial Economics, Transport, Indian Roads Congress,

Conference PC Chair Transportation Planning and implementation Methodologies for Developing Countries (TPMDC) 2014

Associate Warden, Faculty advisor to 2<sup>nd</sup> year M.Tech students, Transportation systems studio, Faculty in charge

Member secretary of DPC and member of DPGC.

**Prakash Nanthagopalan**

Reviewer ASCE - Materials in Civil Engineering, Cement and Concrete Research, Sadhana - Academic Proceedings in Engineering Science

MS Thesis External Examiner of one thesis from IIT Madras.

Member: Technical Committee on Durability - Indian Concrete Institute

Prof. In charge of Department library, Faculty advisor (2011 batch)

Member of Technical advisory committee and Central Nanofacility committee, DAAC, DCCC, DCC, DRC, Dept. TA regularization committee, Dept. task force, DPC, DUGC, Dept. Junior Mechanic Selection (Question paper setting), Dpet. M.Tech admission committee, Dept. PhD Admission committee, Dept. Science EXPO committee, Dept. S. N. Bose student nomination committee.

**RAAJ Ramsankaran**

Reviewer: for ASCE Jr. of Hydrol. Engg., SADHANA, Academic Proceedings, Current Science, Journal of Groundwater Research, Water Resources Management, ISH

Session Chair in Hydro 2014 International Conference held at NIT Bhopal

Marshall for PG Degree recipients of civil Engg. Dept. during Convocation 2014

Member of DUGC, member secretary of DCRC, Dept. coordinator of Tech Connect 2014, member of DCCC and M.Tech and PhD admissions committee, Coordinator of IDP in Climate Studies seminar planning committee, Member secretary of IDP in Climate studies

**Rastogi, A. K**

Journal Editor Jr. of Groundwater Research, Jr. of Hydro Environment Research (JHER)

Vice-Chancellor's nominee as an Expert Member on the Faculty Selection Committee

Dept. of Civil and Env. Engineering, JNTU, Hyderabad, April 9, 2014.

Member UPSC interview board for selection of Adviser (Technical), June 25, 2014, UPSC, Dholpur House, New Delhi

Member Selection Committee for selection of Hindi Officer at IIT Bombay, September 4, 2014.

Evaluated 4 Ph.D. synopsis as external expert member of Research and Recognition Committee of the Board of Civil Engg, Mumbai University

Examined suitability of Three faculty to teach ME courses as external expert member of Research and Recognition Committee of the Board of Civil Engg, Mumbai University

Member Advisory Committee, Dept. of Civil and Environment Engineering, VJTI, Mumbai

Member Board of Studies, Dept. of Civil and Water Management Engineering SGGS Institute of Engineering and Technology, Nanded

Member Research Committee Dept. of Civil Engineering, Dr. Babasaheb Ambedkar Technological University, Lonere

Member Expert Panel of Indian National Committee on Groundwater, Govt. of India

Member Expert Panel of Indian National Committee on Hydraulics, Govt. of India

External Expert on Research and Recognition Committee for the Board of Studies Civil Engineering appointed by the Vice Chancellor University of Mumbai

External expert for evaluation of credential of Prof R B Magar for Ph.D. teaching in Civil Engg, Mumbai University.

Participated in Meeting of Research and Recognition Committee in Civil Engg, University of

Mumbai, Fort, Mumbai on Dec.4, 2014.

**Singh, D. N**

Journal editor : Editor in chief: Environmental Geotechnics, ICE Publishing, London, UK

**Tom V Mathew**

Journal Editor: Transport in Developing Economies

Conference PC Chair Transport Research Group of India, Transportation and Planning and Implementation Methodologies 2014.

Member, Research Council, National Transportation Planning and Research Centre, NATPAC, Trivandrum, Kerala (2013-till date)

External Ph.D Thesis Examiner CUSAT, Cochin

Member of Committee: TTPC, Rate Contract, DUGC, DPC, DCCC,

**Vedagiri, P**

Reviewer of research project proposals Czech science foundation.

Member of DPC, CEA, Faculty advisor of B.Tech , Department ARP Coordinator

**Viswanadham, B. V. S**

Reviewed papers in ASCE Journal of Materials in Civil Engineering, Geotextiles and Geomembranes, Geosynthetics International, Soils and Foundations, Int; Papers in 7th International Conference in Environmental Geotechnics, Melbourne, Australia, November 11-14 2014

Guest Editor, Special Issue (September 2014) on Physical Modelling in Geotechnics in Geotechnical Engineering Journal of South East Asian Geotechnical

Editorial Board Member: Indian Geotechnical Journal; Indian Journal of Geosynthetics and Ground Improvement

External Ph.D Thesis Examiner of 3 thesis from JNTU Hyderabad and one thesis from CUSAT, Cochin.

National Dandi Memorial Project: Evolving design details of foundations for various buildings at Dandi Memorial Project; Design of lake body along with evolving specifications

Board of Studies, GMR Institute of Technology For evolving curriculum to B.Tech Civil Engineering students

Positions held: Associate Dean -1 (IPS)

Convenor of Committee: Advertising committee, Scrap disposal committee, Hostel taskforce, Admission Committee

Member of DPGC, DPC

## 10. Publications

### 10.1. Books

**M C Deo** "Soft computing," *Encyclopedia of estuaries*, Ed. , Springer , , pp.-, ,

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Singh, D.V., Beainy, F., Zaman, M., Commuri, S"Application Of Intelligent Compaction Technology For Estimation Of Effective Modulus For A Multilayered Asphalt Pavement,,"*Geotechnical Special Publication:GSP 249*, Ed. Rafiqul A. Tarefder, Jiong Hu, Musharraf Zaman, and Dar-Hao Chen USA, ASCE, 2014, pp.-, ISBN (print): 978-0-7844-7849-3,

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## 10.2. Papers in Refereed Journals

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- Swathi B., & **Eldho T.I** "Inverse Modeling of Groundwater Systems Using Coupled PSO-MLPG Techniques," *Proceeding of 11th International Conference on Hydroinformatics (HIC2014)*, New York, USA , 2014, New York, USA
- Swathi B., & **Eldho T.I.** "Groundwater Pollution Management Using Simulation Optimization Models," *Proceedings of 3rd International Conf. on Hydrology & Meteorology, Hyderabad*, 2014, Hyderabad
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## 11. Faculty Members and their Specializations

**Ajit Srividya** PhD (IIT Bombay) (On lien)

Professor

Structural reliability, Optimization, Quality systems

**Avijit Maji** PhD.Eng. (Morgan State University)

*Assistant Professor*

Highway planning, Geometric Design, Innovative intersection/interchange design, Traffic Operations

**Bajoria, K.M** PhD (Cambridge)

*Professor*

Structural engineering: Computer aided design, Non-linear analysis, Nuclear structures.

**Banerjee Sauvik** PhD, (UCLA)

*Associate Professor*

Structural engineering: Structural and solid mechanics, Ultrasonic wave propagation in solids, Non-destructive quality evaluation of composites, Structural health monitoring, Dislocation mechanics, Multiscale materials modeling.

**Balaji, R** PhD (IIT Madras)

*Associate Professor*

Ocean/coastal engineering, coastal structures, modeling of coastal processes.

**Behera, Manasa R** PhD (IIT Madras)

*Assistant Professor*

Ocean engineering: Computational ocean dynamics and coastal processes, Numerical modelling of water waves, tide, tsunami and storm surge, Impact of changing climate on coastal and ocean processes, Wave-current interaction, Wave and tidal energy assessment, Multi-phase flows, Fluid-structure interaction.

**Chandiramani, N. K.** PhD (Virginia Tech)

*Professor*

Area of research: Active vibration control, Nonlinear dynamics, Stability; Computational mechanics; Solid mechanics.

**Choudhury, D.** PhD (IISc Bangalore)

*Professor*

Geotechnical engineering: Geotechnical Earthquake Engineering, Earth retaining structures, Slope Stability, Anchor, Pile, Bearing capacity problems, Earth Dams, Seismic effects on Reinforced Soil-Wall, Dynamic Soil-Structure interaction problems, Tsunami resistant design of waterfront structures, Seismic behavior of Landfills, Seismic Ground Characterization, Behavior of Subgrade Soil under Cyclic railway and airways loads, Soil Dynamics, Machine Foundations, GIS-GPS based Hazard analysis, Soil Liquefaction, Seismic Microzonation, Centrifuge Modeling, Numerical and Analytical modeling of geotechnical problems.

**Dasaka S. Murty,** PhD (IISc, Bangalore)

*Assistant Professor*

Geotechnical engineering: Site investigation, Stability of shallow and deep foundations, Reliability based design, Ground improvement, Landfill engineering and modeling of soil and rock.

**Das A K,** Ph.D (Carnegie Mellon University)

*Assistant Professor*

Computational Mechanics, Plates and Shells, Building information modeling, formwork for concrete structures, analysis of pavements.

**Deo, M.C.** Ph.D (IIT Bombay)

*Professor*

Ocean engineering: Random data analysis using artificial intelligence techniques, Neural networks, Genetic programming, Model trees, Locally weighted learning, Support vector machines, Soft computing, Data mining, Statistical and stochastic analysis, Hydrology (Random data analysis using soft computing tools)

**Desai, Y.M.** Ph.D (Manitoba)

*Professor*

Structural engineering: Wind induced vibrations, Computational mechanics, Nonlinear analysis, Finite elements, Parallel computing, Fiber reinforced polymer composites, Composites in construction.

**Dewaikar, D.M.** Ph.D (IIT Bombay)

*Emeritus Professor*

Geotechnical engineering: Offshore foundations, Ground improvement, Seepage.

**Dharamveer Singh** Ph.D (University of Oklahoma)

*Assistant Professor*

Characterization of Pavement Materials (Asphalt, Hot Mix Asphalt, Soil, and Aggregates),

Recycled Asphalt Mixes, Warm Mix Asphalt, Locally Available Materials, Stabilization of Soil and Aggregates, Intelligent Asphalt Compaction, Constitutive Modeling of Pavement Materials, Simple Performance Tests (Rutting, Fatigue, Dynamic Modulus) on Asphalt Mixes, Pavements (Flexible and Rigid) Design and Evaluation, Forensic Investigation of Pavements, Pavement Maintenance and Rehabilitation”

**Dhingra, S. L.** Ph.D (IIT Kanpur)  
Emeritus Fellow

Transportation systems engineering: Modeling, Simulation, Economics, Environmental impact assessment, GIS, Expert systems, Artificial intelligence, Genetic algorithms, Fuzzy set theory.

**Eldho, T.I.** Ph.D (IIT Bombay)  
*Professor*

Water resources engineering: Groundwater flow, pollutant transport, remediation – numerical & experimental investigations Computational fluid dynamics – Incompressible viscous flows, shallow water flow, estuary dynamics, pollutant transport Watershed management – applications of numerical models, Geographical Information Systems, Remote sensing.

**Ghosh, Subimal** Ph.D (IISc, Bangalore)  
Associate Professor

Water resources engineering: Uncertainty modeling, Water resources systems, Hydroclimatology.

**Ghosh, Jayadipta** Ph.D (Rice University)  
Assistant Professor

Seismic fragility analysis of civil engineering structures, bridge engineering, life cycle analysis of structures, inverse reliability problems, uncertainty propagation techniques.

**Ghosh, Siddhartha** Ph.D (Michigan)  
*Associate Professor*

Structural engineering: Performance-based seismic design, Reliability-based seismic design, Plastic design of steel structures, Analysis and design of special plate shear walls.

**Goyal, A** Ph.D (UCBerkeley)  
*Professor*

Structural engineering: Base isolation systems and energy absorbing devices, Earthquake analysis and design, Liquid storage tanks, Bridges, Vibration control of structures, Service life assessment of buildings.

**Gupta, Kapil** Ph.D (Sheffield)  
*Professor*

Water resources engineering: Urban water supply systems, Urban drainage, Urban water infrastructure management, Flood Protection structures, Computational fluid dynamics, Optimization, Environmental impact assessment, Water quality analysis and modeling, Constructed wetlands, Urban disaster management.

**Inamdar, M.** PhD (CalTech)

*Associate Professor*

Structural engineering: Solid mechanics, Cellular adhesion and motility, Mechanics of soft materials, Dissipation in structural and mechanical systems.

**Janga Reddy Manne** PhD (IISc, Bangalore)

*Associate Professor*

Water resources engineering: Water resource systems, Evolutionary computation for single and multi-objective optimization, Stochastic hydrology, Soft computing applications in hydrology, Climate change impacts on watersheds, water resources and agriculture, Design and performance evaluation of drip and sprinkler irrigation systems, Application of remote sensing and GIS tools in watershed development and management, Precision agriculture and developing decision support systems for water resources management.

**Jangid, R.S.** PhD (IIT Delhi)

*Professor*

Structural engineering: Structural mechanics, Structural dynamics and earthquake engineering, earthquake-resistant design, Base isolation for a seismic design of structures, Seismic isolation of bridges and liquid storage tanks, Non-classically damped system, Vibration control using tuned mass dampers.

**Jothiprakash, V.** PhD (IIT Madras)

*Professor*

Water resources engineering: Water resources systems analysis, Reservoir operation, Policy issues, Multi-objective analysis, Stochastic hydrological modeling, Irrigation water management.

**Juneja A** PhD (NUS Singapore)

*Associate Professor*

Geotechnical engineering: In-situ and laboratory engineering properties of soil, Numerical and physical modeling in geotechniques, Earthwork, Ground improvement.

**Kant, Tarun** PhD (IIT Bombay); FNA; FASc; FNAE

*Professor*

Structural engineering: Solid mechanics, Plates, Shells, Fiber reinforced polymer composite laminates, Higher order theories, Thermal stresses, Transient dynamic techniques, Finite elements, Numerical techniques, Polymer composites in construction, Composite mechanics, Computational mechanics.

**Krishna Rao, K.V.** PhD (IIT Madras)

*Professor and Head*

Transportation systems engineering: Travel demand modeling, Evolutionary algorithms, Neural networks and GIS in transport planning, Traffic design and analysis.

**Laskar, Arghadeep** Ph.D (University of Houston)

*Assistant Professor*

Reinforced and Prestressed concrete, Experimental study and analysis of full-scale structural specimens, finite element modeling and analysis of structures, seismic simulation of structures.

**Mandal, J.N.** PhD (IIT Kharagpur)

*Professor*

Geotechnical engineering: Geosynthetics for civil engineering construction.

**Nagendra Rao Velaga** Ph.D (Loughborough University)

*Assistant Professor*

Transportation systems engineering: Intelligent Transportation Systems (ITS); Transportation accessibility and mobility; GIS and GNSS applications in transport; ICT and smart-mobile phone applications in ITS.

**Pani, B.S.** PhD (Alberta)

*Emeritus Professor*

Water resources engineering: Diffusion of jets and plumes, Multiple diffusers, Offshore pipelines, Scour problems, Cooling water structures.

**Patil G. R** PhD (Rensselaer Polytechnic Institute, Troy, NY)

*Assistant Professor*

Transportation systems planning, Network optimization, Freight transportation modeling, Traffic operations, Demand modeling, Traffic emissions

**Prakash, Nanthagopalan.** PhD (IIT Madras)

*Assistant Professor*

High performance concrete, Sustainable construction materials, Mineral and chemical admixtures in concrete, Rheology of cement based materials.

**RAAJ Ramsankaran** PhD (IIT Roorkee)

*Assistant Professor*

Remote sensing and Geographical Information Systems and its applications to water resources engineering, Urban Sensing, High Definition Surveying.

**Rao, E. P.** PhD (IIT Bombay)

*Associate Professor*

Remote sensing: Remote sensing applications to water resources, Runoff modeling, Water distribution systems optimization.

**Rastogi, A. K.** PhD (Birmingham)

*Professor*

Aquifer Remediation Strategies, Inverse Modeling of the Aquifers and Auto Calibration of Field Models, Solute Transport Modeling involving Hydrodynamic Dispersion in Aquifers, Ground Water Flow Modeling of Unconfined and Confined Aquifers, Well Hydraulics Modeling. Groundwater Systems Planning and Management and Coastal Aquifer Hydrodynamics Modeling.

**Ravi Sinha,** PhD (Northwestern)

*Professor*

Structural engineering: Earthquake engineering, Vibration control and isolation, Structure rehabilitation and condition monitoring, Disaster management.

**Singh, D. N.** PhD (IIT Kanpur)

Professor

Geotechnical engineering: Environmental geotechnics, radioactive waste disposal, Solid waste utilization, Geotechnical centrifuge modeling.

**Tom. V. Mathew,** PhD (IIT Madras)

Professor

Transportation systems engineering: Traffic flow modeling and simulation, Transportation network optimization, control and management.

**Vedagiri P.** PhD (IIT Madras)

Associate Professor

Pedestrian Flow Modeling, Traffic Flow Modeling and Simulation, Traffic Monitoring, Management and Control, Road Safety Audit, Public Transit System Design and Operations.

**Viswanadham, B. V. S.** PhD (Ruhr)

Professor

Geotechnical engineering: Centrifuge modeling, Soil reinforcement, Ground improvement, Environmental geotechnics-waste materials' behavior, waste containment systems.