

# WORKSHOPS

## NATURAL HAZARDS RISK ASSESMENT AND MANAGEMENT

12 December from 9:30 a.m. – 4:30 p.m. Indian Institute of Technology, New Delhi

Natural hazards such as earthquakes, landslides, floods etc. have been causing significant damages to life and property in India. The workshop will cover various methodologies and approaches to understand the impact of natural hazards and their probabilities and impacts on the community in risk assessment framework.

It will address the multi- hazard engineering risk scenarios from analysis and from the total community standpoint. It will include engineering systems, and socio-economic systems as components of a combined community system. Interdependence of various systems will be discussed as well as the response and management considerations.

Emphasis will be given on developing resilience in the community with specific considerations for infrastructure systems. Resilience definitions, resilience determinants and resilience development including capacity building will also be covered.

This workshop is designed to challenge the engineering community to think about natural hazard risk reduction through a prism of developing community resilience based on complex systems nature.

There will be a panel discussion on the challenges, issues, in implementation of risk assessment, communication and mitigation methodologies and it is expected that many officers working in the area are expected to participate in the workshop.

### Workshop Instructors

Dr. Vilas Mujumdar, Dr. R K Bhandari, Prof. Ravi Sinha and Prof. G L Sivakumar Babu

**Dr. Vilas Mujumdar** presents unique professional experiences in understanding hazards combining structural engineering, project management, teaching, and research management in Asia, Europe, Canada and the US. He is recognized internationally for his leadership and contribution to integrated trans-disciplinary work in reducing natural hazard risks, and is proactively involved in addressing sustainability issues facing the global society through engineering.

**Dr. R K Bhandari** is an acknowledged authority in the area of Natural Disaster Mitigation and Management and has served with distinction, earlier, with the Central Road Research Institute, Central Building Research Institute, as visiting faculty with University of Wollongong, Australia and the UN Centre for Human Settlements, and CSIR. He was a member of the High Powered

Committee of the Government of India on Disaster Management Plan, member on Seismic Microzonation, Department of Science and Technology.

**Prof. Ravi Sinha** is a professor in Civil Engineering and Dean (Alumni & Corporate Relations) in Indian Institute of Technology Bombay, Mumbai. He served in various technical committees of Government of India and state governments as advisor and expert on earthquake risk reduction. He has received a number of awards and distinctions and has contributed significantly as researcher, teacher and consultant.

**Prof. G L Sivakumar Babu** is a professor of Civil Engineering, also serves as Chairman, Centre for Continuing Education, Indian Institute of Science, Bangalore. He is currently the President, Indian Geotechnical Society. He is also the Governor for ASCE Region 10. He works extensively on reliability and risk assessment of civil engineering systems, geoenvironmental engineering, ground improvement and geosynthetics, sustainability and contributed significantly.

#### URBAN SOLID WASTE MANAGEMENT, ISSUES, CHALLENGES AND OPTIONS

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Management of solid waste in urban areas in India has assumed critical role and solutions such as treatment of existing dumpsites, scientific landfilling, waste-to-energy, methane gas recovery options are being explored to suit the present conditions without compromising the future needs.

There is a need to discuss the issues, challenges and solutions and the workshop fulfils this requirement. The workshop covers topics such as waste characterization, liners and barrier systems, use of recycled and waste materials etc.

There will be a panel discussion on the challenges, issues, in implementation of different options and it is expected that many officers working in the area are expected to participate in the workshop.

#### Workshop Instructors

Prof. Krishna R. Reddy, Prof. Manoj Datta and Prof. G L Sivakumar Babu

**Prof. Krishna R. Reddy** is a Professor of Civil and Environmental Engineering, the Director of Sustainable Engineering Research Laboratory (SERL), and the Director of the Geotechnical and Geoenvironmental Engineering Laboratory (GAGEL) in the Department of Civil and Materials Engineering at the University of Illinois at Chicago (UIC). He has over 25 years of research, teaching and consulting experience addressing the nexus among sustainability, resiliency, infrastructure, water, energy, and the environment in urban setting.

**Dr. Manoj Datta** is currently Professor and Head of Civil Engineering Department at IIT Delhi where he has been teaching and conducting research since 1980. His current areas of interest include environmental geotechnics, landfills, ash & tailings impoundments, embankments & dams, ground improvement, energy geotechnics, foundation engineering, education, accreditation and rankings.

**Prof. G L Sivakumar Babu** is a professor of Civil Engineering, also serves as Chairman, Centre for Continuing Education, Indian Institute of Science, Bangalore. He is currently the President, Indian Geotechnical Society. He is also the Governor for ASCE Region 10. He works extensively on reliability and risk assessment of civil engineering systems, geoenvironmental engineering, ground improvement and geosynthetics, sustainability and contributed significantly.