



KEYNOTE/ INVITED LECTURES

**Dr. Suresh Bhalla, Department of Civil
Engineering, IIT Delhi**

Updated on 03 July 2015

1. **Bhalla, S.**, Suresh, R., Moharana, S., Talakokula, V., Kaur, N. and Naskar, S. (2015), **“MULTI-DISCIPLINARY APPLICATIONS OF PIEZO-SENSORS: STRUCTURAL HEALTH MONITORING, BIO-MECHANICS AND ENERGY HARVESTING”**, **Invited talk**, National Conference on Recent Advances and Future Prospects on Civil Engineering 2015, Bhubaneswar.
2. **Bhalla, S.**, West, R., Bhagat, D., Gupta, M and Nagpal, A. (2014), **“PRE-ENGINEERED BAMBOO STRUCTURES: A STEP TOWARDS SUSTAINABLE CONSTRUCTION”**, **Keynote address**, International Conference on Sustainable Civil Infrastructure, ASCE Indian Section, 17-18 October, Hyderabad.
3. **Bhalla, S.** (2014), **“VIRTUAL LABS”**, **Invited Lecture**, Workshop on Plan on Scheme for Promoting Innovation, Creativity and Engagement in Sciences (SPICES) by Young People, organised by National Council of Science Museums and National Innovation Council with support from Planning Commission and Ministry of Culture, National Science Centre, 11 March, New Delhi.
4. **Bhalla, S.** (2014), **“VIRTUAL LABS”**, **Invited Lecture**, National Mission on Education Through Information and Communication Technology (NMEICT) Workshop on Technology Enhanced Learning, Shri Shankracharya Technical Campus, Chhattisgarh Swami Vivekanand Technical University, 10 January, Raipur.
5. **Bhalla, S.** (2013), **“ASSESSMENT OF REBAR CORROSION IN RC STRUCTURES USING PIEZO-TRANSDUCERS (EMI TECHNIQUE)”**, **Keynote Lecture**, Workshop on Health Monitoring of Structures, 25 October, Thapar University, Patiala.
6. **Bhalla, S.** and Talakokula, V. (2013), **“DIAGNOSIS OF CHLORIDE/ CARBONATION INDUCED REBAR CORROSION IN RC STRUCTURES USING PIEZO-TRANSDUCERS”**, **Invited Lecture**, National Workshop on Stability of Structures, organised by the Association of Consulting Civil Engineers (ACCE), 27 September 2013, Hyderabad.

7. **Bhalla, S.** and Shanker, R. (2012), “**STRUCTURAL HEALTH MONITORING VIA LOW AND HIGH FREQUENCY VIBRATIONS THROUGH PIEZO-TRANSDUCERS**”, **Keynote Lecture**, 8th Biennial Structural Engineering Convention (SEC 2012), 19-21 December, Sardar Vallabhai National Institute of Technology, Surat.
8. **Bhalla, S.** (2012), “**STRUCTURAL HEALTH MONITORING: TECHNOLOGICAL ISSUES AND CHALLENGES**”, National Workshop on Repair and Rehabilitation of Structures, Malvia National Institute of Technology (MNIT) Jaipur, 05-06 October, 2012.
9. **Bhalla, S.** (2012), “**FATIGUE LIFE ASSESSMENT OF STRUCTURES USING ELECTRO-MECHANICAL IMPEDANCE TECHNIQUE**”, **Invited Lecture**, Workshop on Structural Health Monitoring and Rehabilitation, Birla Institute of Technology and Science (BITS) Pilani, 19-20 September, Pilani.
10. **Bhalla, S.** (2011), “**FATIGUE LIFE DETERMINATION USING PIEZO-SENSORS**”, **Keynote Lecture** (01 Oct), National Conference on Advances in Science and Technology (NCRAS-11), Synergy Institute of Engineering and Technology, 30 Sep-01 Oct, Dhenkanal (Odisha)
11. Maheshwari, A. and **Bhalla, S.** (2011), “**LOW-COST TECHNIQUES FOR HEALTH MONITORING OF STRUCTURES**”, **Invited Lecture**, National Conference on Repair and Rehabilitation of Concrete Structures, 06-07 May, NOIDA (UP), pp. 466-474.

OTHER INVITED LECTURES DELIVERD

1. Delivered a lecture on “**STRUCTURAL HEALTH MONITORING OF CIVIL STRUCTURES.LIVE DEMONSTRATION OF VIRTUAL SMART STRUCTURES DYNAMICS LAB**”, at Power Management Institute, Power Management Institute, National Thermal Power Corporation (NTPC), Noida, 28 May 2015, as part of the course “**Civil Design aspects of Power Plant**” **May 26-29, 2015.**
2. Conducted two days National Seminar on “**SMART STRUCTURES AND STRUCTURAL HEALTH MONITORIN**”, jointly with Dr. T. Visalakshi at Acropolis Institute of Technology and Research, Indore, 03-04 April 2015.
3. Delivered lectures on “**PRE-ENGINEERED BAMBOO STRUCTURES: A STEP TOWARDS SUSTAINABLE CONSTRUCTION**” to practising engineers at a session organised by Indian Association of Structural Engineers (IAStructE), 26 March 2015.
4. Delivered a lecture on “**STRUCTURAL HEALTH MONITORING TECHNIQUES APPLIED TO UNDERGROUND STRUCTURES**”, at Power Management Institute, Power Management Institute, National Thermal Power Corporation (NTPC), Noida, 23 January 2015, as part of the course “**Recent Trends of Tunneling Technology in Engineering Geology**” **Jan 20-23, 2015 .**

5. Delivered a lecture on **“LOW-COST TECHNIQUES FOR STRUCTURAL HEALTH MONITORING USING “SMART” PIEZO-TRANSDUCERS WITH LIVE DEMONSTRATION OF VIRTUAL SMART STRUCTURES AND DYNAMICS LAB”**, at Power Management Institute, Power Management Institute, National Thermal Power Corporation (NTPC), Noida, 02 July 2014.
6. Delivered a lecture on **“FUNDAMENTALS OF MACHINE FOUNDATIONS”**, under the course “Civil Design aspects of Power Plants” at Power Management Institute, Power Management Institute, National Thermal Power Corporation (NTPC), Noida, 04 June 2014.
7. Delivered a lecture on **“STRUCTURAL HEALTH MONITORING AND NON-DESTRUCTIVE EVALUATION OF STRUCTURES USING PIEZO-TRANSDUCERS WITH LIVE DEMONSTRATION OF VIRTUAL SMART STRUCTURES AND DYNAMICS LAB”**, at Power Management Institute, Power Management Institute, National Thermal Power Corporation (NTPC), Noida, 22 October 2013.
8. Delivered an expert lecture **“LIMIT STATE DESIGN STEEL MEMBERS FOR FLEXURE”**, at the short term course Limit State Design of Steel Structures (LSDSS-2013), MNIT Allahbad, 20 October 2013. (over 200 attendees)
9. Delivered a lecture **“SMART MATERIALS: INTRODUCTION AND APPLICATIONS”**, and **“SCIENTIFIC WISDOM OF ANCIENT INDIA”** at GICTS Group of Institutions, Gwalior, 20 September 2013.(over 500 attendees)
10. Delivered a lecture on **“STRUCTURAL HEALTH MONITORING AND NON-DESTRUCTIVE EVALUATION USING PIEZO-TRANSDUCERS”**, at Power Management Institute, Power Management Institute, National Thermal Power Corporation (NTPC), Noida, 10 May and 31 May 2013.
11. Delivered a lecture on **“STRUCTURAL HEALTH MONITORING”**, organised by Indian Association of Structural Engineers (IAStructE), 24 January 2013, India Habitat Centre, New Delhi.
12. Delivered a lecture on **“STRUCTURAL HEALTH MONITORING VIA LOW AND HIGH FREQUENCY VIBRATIONS THROUGH PIEZO-TRANSDUCERS”**, Vibration Group Lecture, 10 October 2012.
13. Delivered a lecture on **“NEW DEVELOPMENTS IN STRUCTURAL HEALTH MONITORING USING PIEZO-TRANSDUCERS”**, at Indo-Danish Workshop on Future Composite Technologies for Wind Turbine Blades, 08-09 October 2012.
14. Delivered lecture on **“A MECHANICAL IMPEDANCE APPROACH FOR STRUCTURAL HEALTH MONITORING AND NON-DESTRUCTIVE EVALUATION USING PIEZO-TRANSDUCERS”** at Department of Civil, Structural and Environmental Engineering, Trinity College, University of Dublin, Ireland, 25 June 2012.
15. Delivered lecture on **“A MECHANICAL IMPEDANCE APPROACH FOR STRUCTURAL HEALTH MONITORING AND NON-DESTRUCTIVE EVALUATION USING PIEZO-**

- TRANSDUCERS**” at Department of Architecture and Civil Engineering, University of Bath, UK, 21 June 2012.
16. Delivered lecture on “**ENGINEERED BAMBOO: SCIENTIFIC DESIGN APPROACH**” at the School of Planning and Architecture (SPA), New Delhi, 16 March 2012.
 17. Delivered lecture on “**SYSTEM IDENTIFICATION AND STRUCTURAL HEALTH MONITORING**” in the short course “ADVANCES IN EARTHQUAKE ENGINEERING”, under the aegis of Foundation for Innovation and Technology Transfer (FITT), IIT Delhi, 28-29 October 2011.
 18. Conducted introductory course on “**STRUCTURAL HEALTH MONITORING**” at Academic Staff College, Rajiv Gandhi Technological University, Bhopal, for Civil Engineering Faculty members, 28-29 June, 2011.
 19. Delivered lecture “**BAMBOO AS ENGINEERED MATERIAL**” at Advanced Materials and Process Research Institute (AMPRI), Bhopal, for Civil Engineering Faculty members, 29 June, 2011.
 20. Delivered lecture on “**ADVANCED TECHNOLOGIES FOR HEALTH MONITORING OF STRUCTURES**” in the short course “ADVANCES IN EARTHQUAKE ENGINEERING”, under the aegis of Foundation for Innovation and Technology Transfer (FITT), IIT Delhi, 30-31 July 2010.
 21. Delivered lecture on “**ADVANCED SENSING TECHNOLOGIES FOR CIVIL ENGINEERS**”, in the workshop “Seismic Assessment and Safety of Structures (SASS-10)”, organized by Department of Civil Engineering, Jamia Milia Islamia University, 20 March 2010.
 22. Delivered lecture on “**NEW DEVELOPMENTS IN ELECTRO-MECHANICAL IMPEDANCE TECHNIQUE FOR STRUCTURAL HEALTH MONITORING**”, organized by IIT Madras, 09 April 2009.
 23. Delivered lecture on “**TENSEGRITY STRUCTURES FOR MASS SHELTERING**”, organized by Jamia Milia Islamia University, 11 March 2009.
 24. Delivered lecture on “**STRUCTURAL HEALTH MONITORING: TECHNOLOGICAL ISSUES AND CHALLENGES**”, organized by Jamia Milia Islamia University, 14 August 2008.
 25. Delivered invited lecture on “**ROLE OF SMART MATERIALS IN CIVIL ENGINEERING**”, in the Seminar “Impact of New Materials, Information Technology and Construction Techniques on Structural Engineering Practice”, organized by Indian Association of Structural Engineers (IAStructE), 27 April 2008, India Expo, Greater Noida.
 26. Delivered lecture on “**ADVANCED TECHNOLOGIES FOR HEALTH MONITORING OF STRUCTURES**” in the short course “SEISMIC RISK REDUCTION OF STRUCTURES PHASE II”, 24 October, 2007, sponsored by Ministry of Human Resource Development (MHRD) under the NPCBEERM, at IIT Delhi.

27. Delivered lectures on “***DIRECT STIFFNESS APPROACH FOR COMPUTER BASED ANALYSIS OF STRUCTURES***” and “***SHALLOW FOUNDATIONS***” respectively on 08 and 13 August, 2007 to engineers of *Prasar Bharti*, New Delhi
28. Conducted short training programme for Management Trainees of Indian Oil Corporation (IOC) on “***STRUCTURAL ANALYSIS, DESIGN AND CONSTRUCTION***”, 29-30 March, 2007.
29. Delivered lecture on “***STRUCTURAL HEALTH MONITORING: TECHNOLOGICAL ISSUES AND CHALLENGES***”, to members of Indian Association of Structural Engineers (IAStructE), 02 September 2006, India Habitat Centre, New Delhi.
30. Delivered lectures on “***SHALLOW AND DEEP FOUNDATIONS***” to practising engineers as part of continuing education course on “***FOUNDATION DESIGN***” organised by Indian Association of Structural Engineers (IAStructE), 21 April, 19 May and 26 May 2006, India Habitat Centre, New Delhi.