



11 Dec 2014

Research Cooperation between NGI and IITR (Geotech EQ Eng. aspects)

B. K. Maheshwari
IIT Roorkee

Follow this and additional works at: <https://scholarsmine.mst.edu/fpsdi>



Part of the [Geotechnical Engineering Commons](#)

Recommended Citation

Maheshwari, B. K., "Research Cooperation between NGI and IITR (Geotech EQ Eng. aspects)" (2013).
Forum for Promotion of Soil Dynamics in India. 6.
<https://scholarsmine.mst.edu/fpsdi/meeting01/minutes/6>

This Event is brought to you for free and open access by Scholars' Mine. It has been accepted for inclusion in Forum for Promotion of Soil Dynamics in India by an authorized administrator of Scholars' Mine. This work is protected by U. S. Copyright Law. Unauthorized use including reproduction for redistribution requires the permission of the copyright holder. For more information, please contact scholarsmine@mst.edu.

Research Cooperation between NGI and IITR (Geotech EQ Eng. aspects)

By

B.K. Maheshwari

Department of Earthquake Engineering
Indian Institute of Technology Roorkee

Research Collaborations

- **Between Norway and India**

Participating Institutes from Norway: NGI, NORSAR

Participating Institutes from India: IITR, WIHG, Others

- **Sponsored by**

The Royal Norwegian Embassy in India, New Delhi

- **Exchange Visits**

Faculty, Scientists, Ph.D. Students

- **All Core Disciplines of Earthquake Engineering**

Seismology, Soil Dynamics & Structural Dynamics

Research Collaborations (3 Phases)

- **First Phase (2003 ~ 2006)**

Indo-Norwegian Programme of Institutional Cooperation

- **Second Phase (2007 ~ 2010)**

Earthquake Risk Reduction in Himalaya with Institutional Cooperation between India and Norway

- **Third Phase (2012 ~ 2015)**

Earthquake Risk Reduction on the Indian Subcontinent

Geotechnical EQ Eng. Aspects

- **First Phase (2003 ~ 2006)**

 - Estimation of Ground Motion Amplifications

- **Second Phase (2007 ~ 2010)**

 - (A) Liquefaction Susceptibility of Selected Sites and

 - (B) Slope Stability Assessment of Critical Slopes

- **Third Phase (2012 ~ 2015)**

 - Earthquake Risk and Loss Assessment in Hilly Areas:
Soil Amplification, Geological and Geotechnical Data
Collection, Modeling and Analysis of Slopes

Team Members

- **From India (DEQ, IITR)**

**D.K. Paul, M.L. Sharma, Ashok Kumar, Y. Singh and
B.K. Maheshwari**

- **From Norway**

NGI: Amir M. Kaynia and Rajinder Bhasin

NORSAR: H. Bungum, Conrad D. Lindholm, Dominik Lang

- **Research Scholars and Ph.D. Students**

Key Outcome / Findings

- **First Phase:** Development of attenuation relationship for Northern India, Seismic hazard, soil amplification, vulnerability and risk assessment of Dehradun.
- **Second Phase:** Liquefaction Susceptibility of Some Selected Sites has been investigated. Slope stability assessment of few Critical Slopes in Mussoorie.
- **Third Phase:** collection of field data are in progress from insitu tests in Mussoorie and Nainital.

Conclusions

- Overall this collaboration has gone very well, resulted in many M.Tech. Dissertations and few Ph.D. Theses. Also research was published in reputed journals and conferences.

THANK YOU

