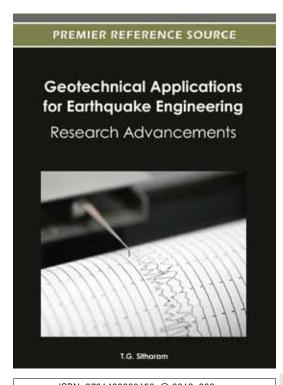
An Excellent Addition to Your Library!

Released: April 2012

Geotechnical Applications for Earthquake Engineering: Research Advancements



T.G. Sitharam (Indian Institute of Science, India)

Disaster preparedness and response management is a burgeoning field of technological research, and staying abreast of the latest developments within the field is a difficult task.

Geotechnical Applications for Earthquake Engineering: Research Advancements has collected chapters from experts from around the world in a variety of applications, frameworks, and methodologies, and prepared them in a form that serves as a handy reference and research guide to practitioners and academics alike. By protecting society with earthquake engineering, the latest research can make the world a safer place.

Topics Covered:

- Term
- Failure mode
- Soft story effect
- Soil liquefaction
- Probabilistic risk assessment

- · Geotechnical engineering
- Seismic retrofit
- Soil structure interaction
- Spectral acceleration
- Base isolation

| ISBN: 9781466609150; © 2012; 392 pp. | Print: US \$180.00 | Perpetual: US \$270.00 | Print + Perpetual: US \$360.00 **Market:** This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal forclassroom use.

T.G. Sitharam is a professor in the Department of Civil Engineering at Indian Institute of Science (Bangalore, India). In 1986 he obtained a master's degree in geotechnical engineering from Indian Institute of Science (Bangalore, India) and a PhD in civil engineering from University of Waterloo (Waterloo, Ontario, Canada) in 1991. Further, he worked as a post doctoral researcher at Center for Earth Sciences and Engineering (CESE) at the University of Texas in Austin (Texas, USA) until 1994. He has served as a visiting professor in Dolhousie University and University of Waterloo (Canada) and Yamaguchi University (Japan). His research interests are in the area of earth science and engineering in particular geotechnical engineering, soil dynamics, geotechnical earthquake engineering, and rock mechanics. He is convener and member of working group of experts of geotechnical engineers in geohazards programm of National Disaster Management Authority (NDMA), Govt of India. He is also member of Programme Advisory and Monitoring Committee (PAMC) for the nationally coordinated programme on Seismicity by Ministry of Earth Sciences (MoES) and Department of Science and Technology (DST) DST, Govt of India. He was a member of TC 29 Laboratory Stress Strain Strength Testing of Geomaterials, International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) for the year 2001-2005. Professor Sitharam has guided twelve Ph.D students, three MSc(Engg) students and several ME project students. Currently he has six doctoral students working with him for their PhD degrees. He has written two text books, one on applied elasticity and the other on soil mechanics and foundation engineering, and also guest edited volumes on geotechnics and earthquake hazards for Current Science and seismic microzonation for Journal of Earth System Science.



Section 1: Chapter 1 Evaluation of Peak Ground Acceleration and Response Spectra Considering the Local Site Effects: Sitharam T. G. (Indian Institute of Science, India) Vipin K. S. (Indian Institute of Science, India) Chapter 2 A Site Specific Study on Evaluation of Design Ground Motion Parameters Boominathan A. (Indian Institute of Technology Madras, India) Krishna Kumar S. (Indian Institute of Technology Madras, India) Analysis of Passive Earth Pressure and Displacements of Retaining Walls Using Pseudo-Dynamic Approach Basha B. Munwar (Indian Institute of Science, India) Sivakumar G. L. (BabuIndian Institute of Science, India) Chapter 4 Cyclic Pore Pressure Generation, Dissipation and Densification in Granular Mixes Thevanayagam S. (University at Buffalo, SUNY, NY, USA) Shenthan T. (Advanced Earth Sciences Inc., CA, USA) Chapter 5 Effect of Superstructure Stiffness on Liquefaction-Induced Failure Mechanisms Madabhushi S.P.G. (University of Cambridge, UK) Haigh S.K. (University of Cambridge, UK) Chapter 6 DEM Simulations in Geotechnical Earthquake Engineering Education Vinod J. S. (University of Wollongong, Australia) Chapter 7 Static and Dynamic Elastic Modulus of Jointed Rock Mass: Sitharam T. G. (Indian Institute of Science, India) Ramulu M. (Central Mining Research Institute, India) Maji V. B. (Indian Institute of Technology, India) Section 2: Chapter 8 Blast Induced Damage Due to Repeated Vibrations in Jointed Gneiss Rock Formation Ramulu M. (Central Institute of Mining & Fuel Research, India) Sitharam T. G. (Indian Institute of Science, India) Production Blast-Induced Vibrations in Longhole Open Stoping: Henning John (Goldcorp Inc., Canada) Mitri Hani (McGill University, Canada) Chapter 10 Development of a New Blast Vibration Prediction Model Incorporating Burden Variations in Surface Blasting Ramulu M. (Central Institute of Mining & Fuel Research, India)

Dynamic Tensile Test of Coal, Shale and Sandstone Using Split Hopkinson Pressure Bar: Xia Kaiwen (University of Toronto, Canada)

Huang Sheng (University of Toronto, Canada)

Jha Ajay Kumar (Indian Institute of Technology, India)

Chapter 12

A Numerical Approach for Simulation of Rock Fracturing in Engineering Blasting Saharan Mani Ram (Central Institute of Mining & Fuel Research (CIMFR), India) Mitri Hani S. (McGill University, Canada)

Chapter 13

Numerical Prediction of Rock Fracturing During the Process of Excavation Zhou Zhangtao (Sichuan University, China) Zhu Zheming (Sichuan University, China) Jin XinXing (Sichuan University, China) Tang Hao (Sichuan University, China)

Chapter 14

Investigations on Impact of Blasting in Tunnels Dey Kaushik (Indian School of Mines, India) Murthy V. M. S. R. (Indian School of Mines, India)

Order Your Copy Toda	ay!
----------------------	-----

Name:	☐ Enclosed is check payable to IGI Global in
Organization:	US Dollars, drawn on a US-based bank
Address:	☐ Credit Card ☐ Mastercard ☐ Visa ☐ Am. Express
City, State, Zip:	3 or 4 Digit Security Code:
Country:	Name on Card:
Tel:	Account #:
Fax:	Expiration Date:
F-mail·	