

Lindsay Ivey Burden

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OBJECTIVE

I am searching for a position that will provide me with an opportunity to use my problem solving, engineering, and communication skills to work on interesting and diverse problems and expand my knowledge in the field of geotechnical earthquake engineering.

EDUCATION

Georgia Institute of Technology – Atlanta, GA Degree expected 8/2011
Ph.D. – Civil Engineering
Concentration: Geotechnical Engineering
Minor: Infrastructure Systems Analysis
Dissertation: “Seismic Risk Analysis for Container Ports”

University of Louisville – Louisville, KY 2001-2006
B.S. and M.E. – Civil and Environmental Engineering
Concentration: Geotechnical Engineering
Thesis: “Screening Guide for Critical River Crossing Structures with Earthquake Disruption Risks”

EXPERIENCE

Graduate Research Assistant

Georgia Institute of Technology – Atlanta, GA 2006-2011

- Developed a framework to model the seismic risk associated with the earthquake-induced disruption of a port system. Focused on the system-wide effects by integrating typical port components (ships, wharves, cranes, backfill, etc...) into a functional operations model and estimating financial losses from both repair costs and downtime. The seismic risk model created was intended for use by port stakeholders to enhance decision-making and monetarily illustrate the benefits of possible mitigation options. Project Sponsor: Network for Earthquake Engineering and Simulation (NEES) / National Science Foundation.
- Spent one semester (2009) as a teaching assistant to Dr. Glenn Rix in Geotechnical Engineering– Developed short (15-30 minute) lectures for and supervised all lab sessions, graded all written work including exams.

Class Assistant

University of Louisville – Louisville, KY 2005-2006

- Responsible along with a small group of students for grading weekly quizzes and tests for Calculus I, II, and III (150+ students). Additionally, solely responsible for grading the homework of two class sections (75+ students).

Internship

Skees Engineering – Louisville, KY 2003-2004

- Assisted the head of the Transportation Department of a small engineering firm in designing/developing plans and cost estimates for various highway projects in the Kentucky area. Member of a team in charge of several highway interchange projects using Microstation. Furthermore, helped develop bids for future projects.

SKILLS

- Geotechnical Engineer with a specialization in earthquakes and earthquake-related risk management.
- Extensive knowledge of container port systems and risk analysis including: seismic hazard analysis, calculation and use of fragility models, and economic analysis.
- Accustomed to working in multi-disciplinary groups.

PUBLICATIONS

Lindsay M. Ivey, Glenn J. Rix, Stuart D. Werner, and Alan L. Erera (2011) "Estimating Repair Cost and Downtime Due to Earthquake-Induced Damage at Container Ports" – to be presented at GeoRisk 2011, Atlanta, GA.

Lindsay M. Ivey, Glenn J. Rix, Stuart D. Werner, and Alan L. Erera (2010) "Framework for Earthquake Risk Assessment for Container Ports" Transportation Research Record, No. 2166, Transportation Research Board of the National Academies, Washington, D.C.

G. J. Rix, S. D. Werner, and **L. M. Ivey** (2009) "Seismic Risk Analysis for Container Ports" Technical Council on Lifeline Earthquake Engineering (TCLEE) Conference 2009, Oakland CA.

L. M. Ivey, G.J. Rix, S.D. Werner (2009) "Fragility and Repair Models for Container Wharves" Performance-based Design in Earthquake Geotechnical Engineering, Kokusho, Tsukamoto, and Toshimine, eds., Taylor and Francis Group, Tokyo.

MEMBERSHIPS

- American Society of Civil Engineers, Student Member
- Earthquake Engineering Research Institute – Vice President of GT student chapter, 2008-2009
- GT Society of Geotechnical Engineers – President, 2007-2009
- Society of Women Engineers
- Delta Zeta Sorority Alumni
- Girl Scouts of America, Lifetime Member

AWARDS

- Presidents Fellowship, Georgia Institute of Technology (2006-2010)
- Trustee's Scholarship, University of Louisville (2001-2006)
- Chi Epsilon, Civil Engineering Honor Society (2003-Present)
- Golden Key National Honor Society (2003-2006)
- Girl Scout Gold Award Recipient (Equivalent to Eagle Scout – 2001)

REFERENCES AVAILABLE UPON REQUEST
