

Jian (Sean) He

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OBJECTIVE:

Seeking a full-time researcher/engineer position in geomaterial area beginning June 2011

QUALIFICATIONS

- Miscellaneous experience on a new class of inorganic materials, also known as geopolymers (Produced 8 technical papers)
- Excellent analytical and problem-solving skills
- Exceptional communication/presentation skills
- Experienced in working on consulting projects
- Experienced in all types of soil property testing
- Skilled at all types of foundation designs
- Able to work effectively as a team member as well as independently
- Proficient in Word, Excel, PowerPoint, SAS, AutoCAD, GIS

EDUCATION

- **Louisiana State University (LSU), Baton Rouge, LA** **May 2007 – May 2011 (expected)**
Doctor of Philosophy in Civil (Geotechnical) Engineering (GPA = 4.0/4.0)
- **University of Nottingham, Nottingham, UK** **December 2005**
Master of Science in Civil (Geotechnical) Engineering
- **China University of Mining & Technology (CUMT), Xuzhou, P.R. China** **July 2004**
Bachelor of Science in Civil Engineering (GPA = 3.5/4.0; class rank = 2/60)

EXPERIENCES

Lab Instructor Assistant, Department of Civil Engineering, LSU, Baton Rouge, LA **January 2008 – present**

- Supervised 50 undergraduate students in a geotechnical laboratory

Research Assistant, Department of Civil Engineering, LSU, Baton Rouge, LA **May 2007 – present**

- Investigated the properties and applications of a new class of inorganic polymers made by aluminosilicate wastes (Produced 8 technical papers)
- Led a group and completed a project (Rockefeller Refuge Marsh Creation Project) for GeoEngineers, INC.
- Ran miscellaneous projects including self-weight consolidation tests and other tests such as sample mixing, water contents, organic matter, specific gravity, and Atterberg limits for both GeoEngineers, Inc and PSI, Inc.
- Conducted settlement analysis using the microcomputer program Pprimary consolidation, Ssecondary compression, and Desiccation of Dredged Fill (PSDDF)

RELEVANT COURSEWORK

Shallow Foundation	Principle of Soil Behavior	Soil Improvement & Stabilization
Clay mineralogy	Solid Mechanics	Advance Geotechnical Engineering I
Mud and Mudstone	Statistics Technique I	Statistical Data Mining
Geographic Information System (GIS)		Deep Foundation (register as a audience)

ACADEMIC ACHIEVEMENTS

Journal Papers:

- Zhang, G., **He, J.**, and Gambrell, R. P. (2010). "Synthesis, Characterization, and Mechanical Properties of Red Mud-Based Geopolymers." *Transportation Research Record: Journal of the Transportation Research Board*. Issue 2167, pp. 1-9. (**Presented** in 33rd International Conference and Exposition on Advanced Ceramics and Composites)
- **He, J.**, Zhang, G., Hou, S., and Cai, C. (2011). "Geopolymer-Based Smart Adhesives for Infrastructure Health Monitoring: Concept and Feasibility." *Journal of Materials in Civil Engineering* (ASCE). 23(2), pp. 100-109. (**Presented** in Transportation Research Board 89th Annual Meeting)
- **He, J.** and Zhang, G. (2011). "Effect of Source Materials on Curing Duration and Mechanical Properties of Final Geopolymeric Products." (Under review).
- **He, J.** and Zhang, G. (2011). "Properties and Potential applications of Red Mud & Rice Husk Ash-Based Geopolymers." (In preparation).

Conference Papers (all peer-reviewed):

- Hou, S., Cai, C., **He, J.**, Zhang, G., and Qu, J. (2009). "Seismic Damage Monitoring for Steel Structure Using Smart Distributed Fiber Optics." *Proceedings of SPIE Vol. 7292, Sensors and Smart Structures Technologies for Civil, Mechanical, and Aerospace System*, SPIE, San Diego, California, USA.
- **He, J.** and Zhang, G. (2010). "Geopolymerization of Aluminum Refinery Waste and Fly Ash: An Innovative Means of Converting Waste to a Resource." (In press). The second Global Waste Management Symposium (GWMS), October 3-6, 2010, San Antonio, Texas, USA.
- **He, J.** and Zhang, G. (2011). "Geopolymerization of Red Mud And Rice Husk Ash and Potentials of the Resulting Geopolymeric Products for Civil Infrastructural Applications." (In press). 35th International Conference and Exposition on Advanced Ceramics and Composites, The American Ceramic Society, January 23-28, 2011, Daytona Beach, Florida, USA. (**Presented** at the conference also)
- **He, J.** and Zhang, G. (2011). "Geopolymerization of Red Mud and Fly Ash for Civil Infrastructure Applications." (In press). 2011 Geo-Institute conference, March 13-16, 2011, Dallas, Texas, USA.

Seminars:

- **He, J.** (2010). "Synthesis and Characterization of Geopolymers for Civil Infrastructural Applications" (Seminar for professors and graduate students in Civil Engineering Department at LSU)

HONORS AND AWARDS

- Nomination for membership in The Honor Society of Phi Kappa Phi, 2010
- Nomination of 2010 Vannevar Bush Award, 2010
- LSU Graduate School Travel Award (for conferences), 2009-2011
- Enhancement Award of the LSU Graduate School (\$ 20,000), 2007 – 2011
- Second-Class Scholarship, CUMT, 2001 – 2003
- Outstanding Student Leader in School of Civil Engineering, CUMT, 2003&2004
- Excellent Undergraduate Thesis, CUMT, 2004