

**Mohammad Sadik Khan, Ph.D., P.E.**  
Assistant Professor  
Department of Civil and Environmental Engineering  
Jackson State University  
P.O. Box 17068 Jackson, MS 39157-0168  
Phone: (601) 079-0550, Cell: 817-319-0079  
Email: mohammad\_sadik.khan@jsums.edu

### **Education**

- Doctor of Philosophy (Geotechnical Engineering), December, 2013.  
The University of Texas at Arlington (UTA).  
**Dissertation:** “Sustainable Slope Stabilization using Recycled Plastic Pin in Texas.”
- Masters of Science in Civil Engineering (Geotechnical Engineering), August, 2011.  
The University of Texas at Arlington (UTA).  
**MS Thesis:** “Evaluation of Resistivity Imaging (RI) Method for Determining Unknown Deep Foundation Depth.”
- Bachelor of Science in Civil Engineering, June, 2007.  
Bangladesh University of Engineering and Technology (BUET).

### **Appointments**

- **Assistant Professor** (*August 2015-Present*),  
Jackson State University
- **Post-Doctoral Research Associate and Adjunct Faculty** (*January, 2014-August 2015*),  
University of Texas at Arlington (UTA)
- **Graduate Research Assistant** (*January, 2010-December, 2013*),  
University of Texas at Arlington (UTA)
- **Project Coordinator** (April, 2009- December, 2009),  
Sinamm Engineering Limited, Dhaka, Bangladesh.
- **Assistant Manager**, (December, 2007- March, 2009),  
Sinamm Engineering Limited, Dhaka, Bangladesh.
- **Assistant Engineer**, (June, 2007- November, 2007),  
China National Electric Wire & Cable Import/Export Corporation (CCC), Dhaka, Bangladesh.

### **Teaching Experience**

- Adjunct Faculty (January, 2014-Present),  
University of Texas at Arlington (UTA)  
**Graduate Level Course:**
  - CE 5369-Computational Geotechnique (Spring 2014)
  - CE 5369-Computational Geotechnique (Spring 2015)
  - CE 6313-Design of Earth Dams (Spring 2015)

### Professional License

- State of Texas, P.E. # 119136

### Honors and Awards

- **SWIS Leadership Award**, Awarded by Solid Waste Institute for Sustainability (SWIS) on July, 2015.
- **Graduate School Dissertation Fellowship**, Awarded for summer 2013.
- Awarded **2<sup>nd</sup> prize of Best Paper Award** on ASCE 2013 Texas Section Spring Conference & Centennial Celebration, March 19 to March 23, Corpus Christi, Texas. Paper Title: “Field Performance of A Highway Slope in Texas Reinforced with Recycled Plastic Pin”
- Member of **Golden Key International Honor Society**.

### Publications

#### *Journals (Under Review)*

- Hossain, J., Hossain, M. S., and **Khan, M.S.**, (2015), “Relationship of Stress Dependent Soil Water Characteristic Curve with Unsaturated Residual Shear Strength of Expansive Clay”, under review in J. Geotech. GeoEnv.
- **Khan, M. S.**, Hossain, M. S., Ahmed, A. and Faysal, M. (2015). “Investigation of a Shallow Slope Failure on Expansive Clay in Texas”. Under review in J. Perform. Constr. Facil.
- Manzur, S. R; Hossain, M.S., Kemler, V. and **Khan, M.S.** (2015), “Monitoring Moisture Variations in an Elr/Bioreactor Landfill using Resistivity Imaging”, under review in waste manage.
- Ahmed, A., Hossain, M.S., **Khan, M.S.** (2015) “Cracking Potential of Expansive Subgrade in North Texas”, under review in 95th Annual Meeting of Transportation Research Board, January 10-14, 2016, Washington, DC, USA.
- Hossain, J., **Khan, M.S.**, Hossain, M.S. and Ahmed, A. (2015) “Determination of Active Zone in Expansive Clay in North Texas through Field Instrumentation”, under review in 95th Annual Meeting of Transportation Research Board, January 10-14, 2016, Washington, DC, USA.

#### *Journals and Technical Note*

- **Khan, M. S.**, Hossain, M. S., and Kibria, G. (2015). “Sustainable Slope Stabilization using Recycled Plastic Pin. *J. Perform. Constr. Facil* (in press).
- Kibria, G., Hossain, M., and **Khan, M.S.** (2013). “Influence of Soil Reinforcement on Horizontal Displacement of MSE wall.” *Int. J. Geomech.*, 10.1061/ (ASCE) GM.1943-5622.0000297 (Feb. 22, 2013).
- Hossain, M.S., **Khan, M.S.**, Hossain, J., Kibria, G., and Taufiq, T. (2013). “Evaluation of Unknown Foundation Depth Using Different NDT Methods.” *J. Perform. Constr. Facil.*, 27(2), 209–214.
- Hossain, M., Kibria, G., **Khan, M. S.**, Hossain, J., and Taufiq, T. (2012). “Effects of Backfill Soil on Excessive Movement of MSE Wall.” *J. Perform. Constr. Facil.*, 26(6), 793–802.

### ***Peer Reviewed ASCE Geotechnical Special Publications and TRB Proceedings***

- **Khan, M. S.**, Hossain, M. S., Ahmed, A. and Faysal, M. (2015). Investigation of Shallow Failure of a Highway Slope Constructed over Expansive Soil. *Proc. 94th Annual Meeting of Transportation Research Board*, Washington D.C.
- **Khan, M. S.** and Hossain, M. S. (2015). Effect of Shrinkage and Swelling Behavior of High Plastic Clay on the Performance of A Highway Slope Reinforced with Recycled Plastic Pin. *Proc. 94th Annual Meeting of Transportation Research Board*, Washington D.C.
- **Khan, M. S.**, Hossain, M. S., and Lozano, N. (2014). “A Numerical Study on Slope Stabilization using Recycled Plastic Pin”. *Proc. Geo-Congress 2014, Geo-Characterization and Modeling for Sustainability*, Feb 23-26, ASCE, Reston, VA.
- **Khan, M. S.**, Hossain, M. S., Lozano, N. and Kibria, G. (2014). “Temporary Lateral Support of a Concrete Retaining Wall Footing using Recycled Plastic Pin”. *Proc. Geo-Congress 2014, Geo-Characterization and Modeling for Sustainability*, Feb 23-26, ASCE, Reston, VA.
- **Khan, M. S.**, Hossain, M. S. and Ahmed F. S. (2013). "A Comparative Study on Compressive Strength of Recycled Plastic Pin, Wood Lumber and Bamboo at Different Environmental Conditions". *92nd Transportation Research Board Annual Meeting*. Transportation Research Board, January 13-17, Washington D. C.
- **Khan, M.S.**, Kibria, G. Hossain, M.S., Hossain, J., and Lozano, N (2013). “Performance Evaluation of a Slope Reinforced with Recycled Plastic Pin.” GSP-231, *Proc. Geo Congress 2013*: 1733-1742, March 3 - 6, ASCE, Reston, VA.
- **Khan, M.S.**, Hossain, M.S., Hossain, J., and Kibria, G., (2012) “Determining Unknown Bridge Foundation depth by Resistivity Imaging (RI) method.” GSP 225, *Proc. Geo-Congress 2012*: 275-284., March 25-29, ASCE, Reston, VA.
- Hossain, J., Hossain M.S., Lozano, N., **Khan, M.S.**, and Kibria, G., (2012) “Investigation of Geohazard Potential of Highway Embankment Slope on Expansive Clay by using Geophysical method.” GSP 225, *Proc. Geo-Congress 2012*: 634-642., March 25-29, ASCE, Reston, VA.
- Kibria, G., Hossain, M., Hossain, J., and **Khan, M.S.**, (2012) Determination of Moisture Content and Unit Weight of Clayey Soil Using Resistivity Imaging (RI). *GeoCongress 2012*: pp. 3398-3407.
- Hossain, M.S., Kibria, G., Hossain, J., and **Khan, M.S.**, (2012) “Investigation of Moisture Variation of Backfill Soil in MSE wall.” GSP 225, *GeoCongress 2012*: 2629-2638, Oakland, California, March 25-29, 2012.

### ***Conference Proceedings***

- Hossain, M. S., **Khan, M. S.** and Manzur, S. (2014). Monitoring Moisture Variations in an ELR/Bioreactor Landfill Using Resistivity Imaging. *Proc. ISWA 2014*, Sao Paulo-Brazil.
- Hossain, M.S., Lozano, N., Hossain, J., and **Khan, M.S.**, (2012) “Investigation of Geo-hazard Potential of Highway Embankment Slopes on Expansive Clay.” *Proceedings of the 3rd International Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation*, Semarang, Central Java, Indonesia

- Ahmed, M. Z., Siddiquee, S. A. and **Khan, M. S.** (2012) “Reliability and Construction Practices in Building Construction Industry of Bangladesh” Third International Conference in Developing Countries, 4-6 July, Bangkok, Thailand.
- Ahmed, M. Z., **Khan, M. S.**, Siddiquee, S. A., Hasan, M. M. and Kundu, K.K. (2012) “Risk Factors and Construction Practices in Building Construction Sector of Bangladesh” 3rd International Symposium (Jointly Organized by Bangladesh JSPS Alumni Association, Japan Society for the Promotion of Science and Embassy of Japan In Bangladesh, 24-25 February, Dhaka.

### **Selected Research Reports**

- Hossain, M.S., **Khan, M.S.**, Faysal, M., and Ahmed, A. (2014) “Site Investigation and Remedial Design using Recycled Plastic Pins on a Slope Failure along SH 183 in the TxDOT Fort Worth District”, Report Submitted to Texas Department of Transportation (TxDOT), Fort Worth District. pp 36.
- Hossain, M.S., **Khan, M.S.**, Hossain, J., and Kibria, G. (2013) “Implementation of Slope Stabilization in Highway Loop 12 and US 287 slope using Recycled Plastic Pin” Final Report Submitted to Texas Department of Transportation (TxDOT), Dallas District. pp 261.
- Hossain, M.S., Hossain, J., **Khan, M.S.**, and Kibria, G. (2013) “Stability Analysis of the Failed Slope along Highway US 287 S near St. Paul Overpass and Proposed Remedial Measure. Task 1: Moisture Monitoring” Final Report - Submitted to Texas Department of Transportation (TxDOT), Dallas District. pp 180.
- Hossain, M.S., **Khan, M.S.**, Hossain, J. and Kibria, G. (2011) “Effect of Remolding on Shear Strength of High Plastic Clay Soil” Report Submitted to Texas Department of Transportation (TxDOT), Dallas District. pp 89.
- Hossain, M.S., Hossain, J., Kibria, G., **Khan, M.S.**, and Samir, S. (2011) “Slope Stability Analysis of the Failed Slope along IH 30 WB and Proposed Remedial Measure” Final Report Submitted to Texas Department of Transportation (TxDOT), Dallas District. pp 83.
- Hossain, M.S., Kibria, G., Hossain, J., **Khan, M.S.**, and Samir, S., (2011) “Determination of Geotechnical Properties of Clayey Soil from Resistivity Imaging (RI)” Final Report Submitted to Texas Department of Transportation (TxDOT), Dallas District. pp 132.
- Hossain, M.S., Hossain, J., **Khan, M.S.**, Kibria, G., and Samir, S., (2010) “Stability Analysis of the MSE Wall on State Highway 342 (Dallas Avenue) at Lancaster, Texas” Final Report Submitted to Texas Department of Transportation (TxDOT), Dallas District. pp 56.
- Hossain, M.S., Hossain, J., **Khan, M.S.**, Kibria, G., Samir, S., (2010) “Determination of Unknown Bridge Foundation on Mountain Creek over FM 2738, Fort Worth, Texas” Report Submitted to Texas Department of Transportation (TxDOT), Fort Worth District. pp 24.
- Hossain, M.S., Taufiq, T., Manzur, S., Sonia, S., and **Khan, S.** (2010) “Efficiency of Leachate Recirculation System for the City of Denton Landfill, Texas”. 5th Quarterly Report Submitted to Solid Waste Department, City of Denton, Texas. September 2010. pp 67.
- Hossain, M.S., **Khan, M.S.**, Kibria, G., Samir, S. and Alam, M.Z. (2013) “Investigation of Moisture Profile within the MSW at Cefe Valenzuela Landfill using Resistivity Imaging”, Report Submitted to Solid Waste Department, City of Corpus Christi, Texas. August 2013. pp 39.

## **Research Experiences**

***Assistant Professor*** (August, 2015 – Present)

*Jackson State University*

***Post-Doctoral Research Associate*** (January, 2014-August, 2015),

*University of Texas at Arlington (UTA)*

- Stabilization of Highway slopes over I35 near Mockingbird Road at Dallas, Texas.
- Stabilization of Highway slopes over SH 183 near SH 360 at Fort Worth, Texas.
- Evaluation of Modulus of Subgrade Reactions for Pavement Sections at Horseshoe project and I35, Dallas, Texas.
- Instrumentation of subgrade soil to monitor the PVR and deformation of Pavement of SH 342, Lancaster, Texas
- Evaluation of Unconfined Compressive Strength and Resilient Modulus of Flexbase and RAP for pavement application.

***Graduate Research Assistant*** (January, 2010-December, 2013),

*University of Texas at Arlington (UTA)*

- Slope Stabilization using Recycled Plastic Pins along Highway 287 South at St. Paul Overpass, Midlothian, Texas.
- Forensic Investigation and Slope Stabilization using Recycled Plastic Pins along Loop 12 East near UP RR overpass, Dallas, Texas.
- Forensic Investigation on the Causes of Excessive Movement of MSE Wall at State Highway 342 Lancaster, Texas.
- Determination of Unknown Bridge Foundation Depth on Mountain Creek over FM 2738, Fort Worth, Texas.
- Monitoring Performance of Leachate Recirculation of the City of Denton MSW Landfill, Denton, Texas.
- Monitoring Performance of Leachate Recirculation of the City of Denton MSW Landfill, Denton, Texas.

## **Professional Experiences**

***Project Coordinator*** (April, 2009- December, 2009),

*Sinamm Engineering Limited, Dhaka, Bangladesh.*

- Construction of 132/33 KV Substation at Jaypurhat, Bangladesh (*Project Funded by Power Grid Company of Bangladesh Limited*).
- Construction of 50 cast in situ piles for 150 MW peaking power plant at Shikalbaha, Chittagong, Bangladesh (*Project Funded by Bangladesh Power Development Board*).
- Load test for 3 test pile for 150 MW peaking power plant at Shikalbaha, Chittagong, Bangladesh (*Project Funded by Bangladesh Power Development Board*).

***Assistant Manager***, (December, 2007- March, 2009),

*Sinamm Engineering Limited, Dhaka, Bangladesh.*

- Site Investigation and Laboratory testing for 150 MW peaking power plant at Shikalbaha, Chittagong, Bangladesh (*Project Funded by Bangladesh Power Development Board*)
- Structural and Foundation design of a Six Storied Residential Building at Uttara, Dhaka, Bangladesh
- Structural and Foundation design of a Five Storied Residential Building at Dhanmondi, Dhaka, Bangladesh
- Construction of a Shoe Factory Building at Adamjee EPZ, Narayanganj, Bangladesh (*Project Funded by Super Protective Shoes (PVT.) LTD*)

***Assistant Engineer***, (June, 2007- November, 2007),

China National Electric Wire & Cable Import/Export Corporation (CCC), Dhaka, Bangladesh.

- Construction of 230/132 KV Substation at Savar, Dhaka, Bangladesh (*Project Funded by Power Grid Company of Bangladesh Limited*).

### **Conferences**

- Geo-Frontiers 2011, Dallas, Texas, March 13-16, 2011
- GeoCongress 2012, Oakland, California, March 25-29, 2012
- 92<sup>nd</sup> TRB Annual Meeting, Washington, D.C., January 13 – 17, 2013
- GeoCongress 2013, San-Diego, California, March 3-6, 2013
- ASCE Texas Section Spring Conference & Centennial Celebration, Corpus Christi, Texas, March 19-23, 2013
- Fall 2013 ASCE Texas Section Conference and Centennial Celebration, Dallas, Texas, September 11-14, 2013.
- 93<sup>rd</sup> TRB Annual Meeting, Washington, D.C., January 12 – 16, 2014
- GeoCongress 2014, Atlanta, Georgia, February 23-26, 2014
- Global Waste Management Symposium, Orlando, Florida, June 22-25, 2014
- 94th TRB Annual Meeting, Washington, D.C., January 11 – 15, 2015
- 8<sup>th</sup> Geo3 T2 Conference & Exposition, Cary, NC, April 9-10, 2015

### **Technical Presentations**

- 8<sup>th</sup> Geo<sup>3</sup> T<sup>2</sup> Conference (2015), held on April 9 to April 10 in Cary, NC. Lectern Presentation title: “Stabilization of Shallow Slope failure on Expansive Clay using Recycled Plastic Pin”.
- 8<sup>th</sup> Geo<sup>3</sup> T<sup>2</sup> Conference (2015), held on April 9 to April 10 in Cary, NC. Poster Presentation title: “Site Investigation of Highway Slopes Using Resistivity Imaging Technique”.
- 8<sup>th</sup> Geo<sup>3</sup> T<sup>2</sup> Conference (2015), held on April 9 to April 10 in Cary, NC. Poster Presentation title: “Behavior of Expansive Subgrade on A State Highway in North Texas”.
- 94th TRB (2015), held on January 11 to January 15, 2015 in Washington, D.C. Poster Presentation Title: “Effect of Shrinkage and Swelling Behavior of High Plastic Clay on the Performance of a Highway Slope Reinforced with Recycled Plastic Pin.”
- 94th TRB (2015), held on January 11 to January 15, 2015 in Washington, D.C. Poster Presentation Title: “Investigation of Shallow Failure of a Highway Slope Constructed over Expansive Soil”.

- GeoCongress 2014 held on February 23 to February 26, 2014 in Atlanta, GA, Poster Presentation title: “A Numerical Study on Slope Stabilization using Recycled Plastic Pin”
- GeoCongress 2014 held on February 23 to February 26, 2014 in Atlanta, GA, Poster Presentation title: “Temporary Lateral Support of a Concrete Retaining Wall Footing using Recycled Plastic Pin”
- Geo-Congress 2013, held on March 3 to March 6, 2013 in San Diego, CA. Lectern Presentation title: “Performance Evaluation of a Slope Reinforced with Recycled Plastic Pin”
- 2013 Texas Section Spring Conference & Centennial Celebration held on March 19 to March 23, 2013 in Corpus Christi, TX. Lectern Presentation title: “Field Performance of A Highway Slope in Texas Reinforced with Recycled Plastic Pin”
- 92<sup>nd</sup> TRB meeting (2013), held on January 13 to January 14, 2013 in Washington D.C. Lectern Presentation title: “A Comparative Study on Compressive Strength of Recycled Plastic Pin, Wood Lumber and Bamboo at Different Environmental Conditions”
- Geo-Congress 2012, held on March 25 to March 29, 2012 in Oakland, CA. Poster presentation title: “Determining Unknown Bridge Foundation depth by Resistivity Imaging (RI) method”
- Geo-Frontier 2011, held on March 13 to March 16, 2011 in Dallas, TX. Poster presentation title: “Determination of Unknown foundation depth using NDT methods”

#### **Professional Affiliation**

- A.M. of American Society of Civil Engineers (ASCE)
- Member of Deep Foundation Institute (DFI)
- Member, Institute of Engineers, Bangladesh

#### **Committee Membership**

- Friends of Soils and Rock Instrumentation Committee AFS 20, Transportation Research Board (TRB).
- Friends of Physicochemical and Biological Processes of Soils AFP40, Transportation Research Board (TRB).

#### **Review Activities**

- Journal of Transportation Research Record
- ASCE Journal of Pipeline Systems Engineering and Practice
- ASCE International Journal of Geomechanics

#### **Computer Skills**

- PLAXIS, GEO-SLOPE, *GSTABL*, AutoCAD, FB-MultiPier, L-pile, Etabs, SAP, CT-shore, Driven, gINT.