

## Andrew Amenuvor

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### SUMMARY

A lecturer in the Department of Geological Engineering, KNUST with research and work experience in expansive soils, slope stability analysis, and soft soil improvement. Authored high-level scientific publications in high profile journals.

### EDUCATION

**Hohai University**, Nanjing, China  
**PhD, Civil Engineering**

Sep 2015 — May 2020

**Hohai University**, Nanjing, China  
**MSc., Geotechnical Engineering**

Sep 2012 — June 2015

**KNUST**, Kumasi, Ghana  
**BSc., Geological Engineering**

Sep 2007 — June 2011

### RESEARCH PUBLICATIONS

- **Amenuvor, A. C.**, Li, G., Wu, J., Hou, Y., & Chen, W. (2020). An image-based method for quick measurement of the soil shrinkage characteristics curve of soil slurry. *Geoderma*, 363, 114165. doi:10.1016/j.geoderma.2019.114165
- Li, G., **Amenuvor, A. C.**, Hou, Y., Lu, X., Wu, J., & Nguyen, T. N. (2019). Effect of Open-Ended PHC Pile Installation during Embankment Widening on the Surrounding Soil. *Journal of Geotechnical and Geoenvironmental Engineering*, 145(2), 05018006. doi:10.1061/(asce)gt.1943-5606.0002016.
- Lu, X., Li, G., Pei, H., Su, G., Wu, J., & **Amenuvor, A. C.** (2017). Experimental Investigations on Load Transfer of PHC Piles in Highway Foundation Using FBG Sensing Technology. *International Journal of Geomechanics*, 17(6), 04016123. doi:10.1061/(asce)gm.1943-5622.0000797.
- Sun, G., Kong, G., Liu, H., & **Amenuvor, A. C.** (2017). Vibration velocity of X-section cast-in place concrete (XCC) pile–raft foundation model for a ballastless track. *Canadian Geotechnical Journal*, 54(9), 1340–1345. doi:10.1139/cgj-2015-0623.
- Li, G-W., Nguyen, T. N., & **Amenuvor, A. C.** (2014). Settlement Prediction of Surcharge Preloaded Low Embankment on Soft Ground Subjected to Cyclic Loading. *Marine Georesources & Geotechnology*, 34(2), 154–161. doi:10.1080/1064119x.2014.985860.

### CONFERENCE PUBLICATIONS

- **Amenuvor, A. C.**, Li, G-W., Hou, Y-Z., Chen, W. (2018). Shrinkage cracking in physical model of undisturbed expansive clay slope subjected to wet-dry cycles. In C. W. W Ng, A. K. Leung, A. C. F. Chiu, & C. Zhou (Eds.). *Proceedings of The 7th International Conference on unsaturated soils: Unsaturated soils Vol. 1* pp. 471- 476.
- Li, G., **Amenuvor, A. C.**, Lu, X., Wu, J., & Nguyen, T. N. (2016). Ground Disturbance Due to Static Pressure Driving of Opened-Ended PHC Piles. *Proceedings of the International Conference on Deep Foundations, Seepage Control and Remediation (41st Annual)*, 2016, New York, NY, (DFI)

## **RESEARCH EXPERIENCE**

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### **Hohai University, Nanjing, China**

- Developed a new method to measure the soil shrinkage curve Dec. 2018—Aug. 2019
- Investigated the use of non-expansive soil to protective expansive soil slopes Jan. 2019—Dec. 2019
- Assessed the impact of shrinkage cracks on slope stability Mar. 2016— Sep. 2018

### **Hohai University, Nanjing, China**

Investigated the impact of driving PHC piles on the surrounding soil Jun. 2013—Sep. 2014

## **WORK EXPERIENCE**

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### **China Railway Construction Corporation Ltd. /Hohai University**

Mar. 2016—  
Sep. 2017

The South to North Water Diversion Project, Hefei, Anhui province, China.

- Carried out geotechnical instrumentation and monitoring of canal slope
- Conducted stability assessment of expansive soil slope
- Carried out field and laboratory testing for design of expansive soil stabilization method
- Analyzed test data and prepared engineering reports

### **Foshan Nanhai Bay Geotechnical Eng. Tech Service Co., Ltd**

Jun. 2013—Aug. 2014

A geotechnical engineering consulting company engaged in numerous major highway engineering projects (slopes and embankments) in the Guangdong province of China.

- Carried out instrumentation, monitoring and assessment of slope along the GuangLe expressway
- Conducted instrumentation and monitoring of piled embankment along the GuangQing expressway
- Conducted field and laboratory tests

### **Internship, Gold Fields Ghana, Tarkwa mines**

Jun. 2010—Aug. 2010

- Mapped and marked out ore zone
- Monitored ore excavation

## **TEACHING EXPERIENCE**

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### **Department of Geological Engineering, KNUST.**

**August 2020 - date**

Lecturer

- Soil mechanics
- Engineering geology
- Computer programming in MATLAB

### **College of Civil and Transportation Engineering, Hohai University**

Feb. 2019—Jun. 2019

Teaching Assistant

- Finite Element slope stability analysis

### **Department of Geological Engineering, KNUST**

Jul. 2011—May 2012

Teaching Assistant

- Minerology
- Petrology
- Structural geology

- Geological field mapping

### **RESEARCH AND TEACHING INTERESTS**

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- Soil mechanics
- Foundation engineering/analysis
- Slope stability assessment
- Seepage theory
- Ground improvement
- Expansive soil stabilization
- Highway embankment
- Geo-environmental engineering

### **RELATED SOFTWARE SKILLS**

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- Finite element analysis
- GeoStudio: SLOPE/W, SEEP/W, SIGMA/W
- ABAQUS
- PLAXIS
- AutoCAD
- ANSYS
- SketchUp
- ArcGIS
- FLAC
- Microsoft Office

### **LANGUAGES**

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English

Chinese (Mandarin)