

Yonathan Admassu
James Madison University
395 S. High St., Harrisonburg, VA 22807
Off. (540) 568-5016
Cell (330) 289-8226
admassyx@jmu.edu

- Aug.2013 – Present **Assistant Professor, James Madison University**
• Teaching Engineering Geology, Hydrogeology, Applied Physical Geology
- Aug.2010 – Aug.2013 **Assistant Professor, Kent State University – Ashtabula**
• Teaching Geographic Information Science (GIS), Earth Dynamics (lecture and lab), Earth History (lecture and lab), Oceanography and Geology of Ohio
- Jun.2012 –Aug. 2012 **Consultant, Metico Mining Plc., Ethiopia**
• Structural analysis of gold mineralization in western Ethiopia
- Aug. 2009 – Aug. 2010 **Adjunct Geology Lecturer, Kent State University – Stark, Trumbull**
• Taught Earth Dynamics (lecture and lab), Earth History (lecture and lab), Environmental Geology and Oceanography
- Aug. 2004 – Aug. 2009 **Graduate Assistant, Department of Geology, Kent State University, Research Assistant on Rock Slope Project (funded to Dr. Abdul Shakoor by Ohio Department of Transportation)**
• Selected study sites using ARCGIS
• Investigated geological and geotechnical parameters of rock cut slopes
• Determined unconfined compressive strength and slake durability index
• Documented bore hole logs
- Jan. - Feb. 2008 **Teaching Assistant in Department of Geology**
• Taught Earth Dynamics (lecture and lab) and Environmental Geology
- Jan. - Feb. 2008 **Petrographic Consultant, Nord Resources - Tucson, Arizona**
• Carried out petrographic investigation of alteration zones associated with a porphyry copper prospect
- Aug. 2002 - May 2004 **Teaching Assistant, Department of Geology, University of Akron – Akron, Ohio**
• Assisted professors in student performance evaluation
• Taught Physical Geology labs
• Prepared a field manual on geological mapping techniques using GIS/GPS methods
- Apr. 1996 – Aug. 2004 **Exploration Geologist (Precious and Base Metals), National Mining Corporation Addis Ababa, Ethiopia**
• Studied mineralization controlling structures
• Carried out geological mapping at various scales
• Performed geochemical prospecting
- Nov. 1995 – Apr. 1996 **Exploration Geologist, Golden Star Resources – Addis Ababa, Ethiopia**
• Carried out regional geological mapping
• Performed geochemical prospecting
• Prepared geochemical samples for analysis

Major Professional Achievements

- Introduced a **new method for designing rock slopes** subject to differential weathering
- Developed a software, **DipAnalyst** for kinematic analysis of rock slope failures

Education

August 2010

Ph.D., Engineering Geology, Kent State University

Dissertation: Developing Design Methodology for Cut slopes in Ohio

May 2005

MS, Geology, University of Akron

Thesis: Structures and Their Controls on Gold Mineralization
in Werri area, Northern Ethiopia

July 1994

BS, Geology, Addis Ababa University

Computer Skills

- Visual Basic (programming language)
- ARCGIS(GIS), ARCIMS(Internet GIS)
- SLIDE (Rock and Soil Slope Stability), ROCKPACK III (Rock Slope Stability)
- Visual Modflow (Hydrogeology), Flownet (Hydrogeology), Aqtesolv (Hydrogeology)
- ERDAS IMAGINE (Remote Sensing), ENVI (Remote Sensing)
- Microsoft Word, Microsoft Excel

Awards and Research Grants

September 2009	Lemke Scholar - Association of Environmental and Engineering Geologists
September 2008	Platinum Corporate Sponsor Award – Association of Environmental and Engineering Geologists
April 2008	Outstanding Ph.D. student - Department of Geology - KSU
April 2008	Outstanding Student Research Paper - Association of Engineering Geologists, Allegheny-Ohio Section
March 2008	Graduate Student Senate Research Grant - KSU
April 2008	AMOCO Alumni Scholarship, Department of Geology - KSU
April 2007	Leadership Excellence Award - KSU
April 2006	School of Hard Rocks and Mineral Resources Award, Department of Geology - KSU
February 2006	Research Grant (structural controls of gold mineralization in western Ethiopia) - Bema Gold Corporation, Canada
April 2006	Leadership Excellence Award - KSU
March 2005	Outstanding Academic Achievement Phi Beta Delta Award, Honor Society for International Scholars – KSU

Publications

- Admassu, Y., Shakoor, A, 2013, Computer simulation-based evaluation of rock fall roll-out distances for catchment ditch design in Ohio, USA: *Georisk: Assessment and Management of Risk for Engineered Systems and Geohazards*, v. 7, Issue 3, pp. 198-208.
- Admassu, Y., Shakoor, A, 2013, Cut Slope Design Recommendations for Sub-Horizontal Hard Sedimentary Rock Units in Ohio, USA: *Geotechnical and Geological Engineering*, v. 31, pp. 1207-1219.
- Admassu, Y., Shakoor, A, 2013, DipAnalyst: A computer program for quantitative kinematic analysis of rock slope failures: *Computers and Geosciences*, v. 54, pp. 196-202.
- Admassu, Y., Shakoor, A, 2013, Application of a quantitative approach for kinematic analysis of rock slope failures along cut slopes in Ohio: *Proceedings of the 47th U.S. Rock Mechanics / Geomechanics Symposium*.
- Admassu, Y., Shakoor, A., Wells, Neil, 2012, Evaluating selected factors affecting the depth of undercutting in rocks subject to differential weathering: *Engineering Geology*, v. 124, pp. 1-11.
- Admassu, Y., Shakoor, A., 2011, Cut slope design for sub horizontal competent rock units in Ohio: *Geological Society of America*, Abstracts with Programs, v.43, no.1, p 37.
- Admassu, Y., Shakoor, A., 2011, Computer simulation-based evaluation of rockfalls for catchment ditch design in Ohio: *Association of Environmental and Engineering Geologists*, Abstracts with Programs, v.54, p 62.

- Admassu, Y. and Shakoor, A., 2010, Stratigraphic considerations for evaluating cut slope performance in rocks subject to differential weathering: In Williams, A.L., Pinches G.M., Chin, C.Y., McMorrان, T.J., and Massey, C.I. (editors), *Geologically Active, Proceedings, 11th Congress of the International Association for Engineering Geology and the Environment*, Auckland, New Zealand, CRC Press/Balkema, Taylor & Francis Group, London, U.K., pp. 667-674.
- Shakoor, A., Admassu, Y., 2010, Rock Slope Design Criteria: *Ohio Department of Transportation*, Columbus, Ohio, 731p.
- Shakoor, A., Admassu, Y., 2010, Cut slope design for mudrock stratigraphic sequences: *Association of Environmental and Engineering Geologists*, Abstracts with Programs, v.53, p 91.
- Admassu, Y., Shakoor, A., 2009, Role of stratigraphy in cut slope design for horizontally-bedded sequences of competent and incompetent rocks of eastern Ohio: *Proceedings of the 60th Highway Geology Symposium*, Buffalo, NY, pp 141 – 157.
- Admassu, Y., Shakoor, A., 2009, A quantitative approach for kinematic analysis of various modes of rock slope failure: *Association of Environmental and Engineering Geologists*, Abstracts with Programs, v.52, p 55.
- Admassu, Y., Shakoor, A., 2008, Factors influencing the stability of cut slopes subject to differential weathering: *Association of Environmental and Engineering Geologists*, Abstracts with Programs, v.51, p 37.
- Admassu, Y., Holm, D., Friberg, L.M., 2007, Tectonic implications of early E-W oriented structures in southern Arabian Nubian Shield, northern Ethiopia, *Geological Society of America*, Abstracts with Programs, v.39, p.336.
- Admassu, Y., Holm, D., Friberg, V., 2006, Relation between structures and gold mineralization in Neoproterozoic greenstones of the Werri area, northern Ethiopia: *Geological Society of America*, Abstracts with Programs, v.38, p.371.

Professional Memberships

- AEG (Association of Engineering Geologists)
GSA (Geological Society of America)
AAPG (American Association of Petroleum Geologists)
SEG (Society of Economic Geologists)