Application Form

Profile

Prefix	First Name	Middle Initial	Last Name	Suffix
	Yonathan		Admassu	

admassyx@jmu.edu
Email Address

587 Pointe Drive
Home Address

Suite or Apt

Harrisonburg
City

VA
State

22801
Postal Code

How many years have you been a resident of Harrisonburg?

3

Mobile: (540) 405-2724
Primary Phone

Alternate Phone

James Madison University
Employer

Associate Professor
Job Title

Demographics - *(Submission of this information if voluntary and will not subject you to any adverse treatment should you chose to not complete)*

Ethnicity

☑ African American

Gender

☑ Male

What is your age?

☑ 50+ years old

Are you reapplying for a current position you hold? *

☑ No

Which Boards would you like to apply for?

Environmental Performance Standards Committee (EPSAC): Submitted

Interests & Experiences

Yonathan Admassu

Please tell us about yourself and why you want to serve.

Why are you interested in serving on a board or commission?

I am an applied geologist with main interests in groundwater hydrology and geohazards. I supervise my research students working on landslides, roadway rockfall hazards and sinkholes.

What other interests or concerns do you have regarding the community?

My experience is the science side of environmental issues, and I am very interested to share my expertise with policy makers.

What relevant experience or education do you have to this board or commission?

I have a PhD in applied geology, and I have been in academia for 23 years of which 11 have been at JMU.

Please list any past or present community involvement e.g. City Council, Boards and Commissions, Citizen Academy, etc. in Harrisonburg or elsewhere:

I do not have any community involvement experience.

CV_Admassu.pdf
Upload a Resume

EPSAC Applicants only

Question applies to Environmental Performance Standards Committee (EPSAC)

City Council is seeking EPSAC members to represent broad stakeholder interests within the city. If you will be participating on the EPSAC as a representative of a business, group, or organization, please provide the name of the business, group, or organization and indicate what stakeholder category the group represents. If more than one, please list all. A. Residents, civic leagues, homeowners associations. B. Institutional and tax exempt entities including colleges and churches. C. Business community including residential, commercial and industrial property owners, malls, and business groups. D. Professional engineers, real estate developers, and construction contractors. E. Special interest groups that represent economic development, environmental or outdoor recreation. F. Others, education professionals from the local schools and city staff: PLEASE CHOOSE ONE FROM THE DROP DOWN BOX *

None Selected

Question applies to Environmental Performance Standards Committee (EPSAC)

Name of business, group or organization you would represent?

NA

Bike/Pedestrian Subcommittee Applicants only

Yonathan Admassu

Yonathan Admassu – Curriculum Vitae
801 Carrier Drive
Harrisonburg, VA 22807
Off. (540) 568-5016
admassyx@jmu.edu

Aug.2019 – Present	Associate Professor, James Madison University
Aug. 2020 – Dec.2021	ABM Engineers, Member of Panel of Experts on Landslide Affected Section of the Ankober –Dulecha Highway, Ethiopia
Aug.2013 – August 2019	Assistant Professor, James Madison University
Aug.2010 – Aug.2013	Assistant Professor, Kent State University – Ashtabula
Jun.2012 –Aug. 2012	Consultant, Metico Mining Plc, Ethiopia
Aug. 2009 – Aug. 2010	Adjunct Geology Lecturer, Kent State University – Stark, Trumbull
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)
Jan. - Feb. 2008	Petrographic Consultant, Nord Resources - Tucson, Arizona
Aug. 2002 - May 2004	Teaching Assistant, Department of Geology, University of Akron – Akron, Ohio
Apr. 1996 – Aug. 2004	Exploration Geologist (Precious and Base Metals), National Mining Corporation, Addis Ababa, Ethiopia
Nov. 1995 – Apr. 1996	Exploration Geologist, Golden Star Resources – Addis Ababa, Ethiopia

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

Professional Memberships

Geological Society of America
Association of Environmental and Engineering Geologists

Awards

2025 – College of Science and Mathematics – JMU – Outstanding Faculty Award

2025 – Association of Environmental and Engineering Geologists (AEG) - Presidential Citation Award

2024 – Association of Environmental and Engineering Geologists (AEG) - Publication Award

Publications

Admassu, Y. 2025, *Phase II: High Resolution Digital Elevation Models (DEMs) and Street-Level Imagery for Rock Cut Slope Inventory and Rockfall Hazard Rating*: Virginia Transportation Research Council, Final Report, VTRC 26-R14, 56p.

Admassu, Y., Gugsa, T., 2024, Possible Role of Internal Erosion in the Development of Ground Fissures around Lake Ziway, Ethiopia: *Environmental and Engineering Geoscience*, vol. XXX, No. 1-2 pp. 45 – 58.

Admassu, Y., Woodruff, C., 2021, Improved automated mapping of sinkholes using high-resolution DEMs: *Environmental and Engineering Geoscience*, vol. XXVII, No. 3 pp. 331 – 351.

Admassu, Y., 2019, Digital surface model-aided quantitative geologic rockfall rating system (QG-RRS): *Environmental and Engineering Geoscience*, vol. XXV, No. 4 pp. 255 – 271.

Swanger, W., Admassu, Y., 2018, Using Google Earth and Google Street view to rate rock slope hazards: *Environmental and Engineering Geoscience*: *Environmental and Engineering Geoscience*, vol. XXIV, No. 2 pp. 237 – 250.

Admassu, Y., 2018, The use of Google earth/Google Street View combined with high resolution digital surface models (DSMs) for rockfall hazard: *Proceedings of the 69th Highway Geology Symposium*, Portland, ME.

Admassu Y., 2018 Alteration. In: Bobrowsky P.T., Marker B. (eds) Encyclopedia of Engineering Geology. Encyclopedia of Earth Sciences Series. Springer, Cham, pp.21 – 22.

Admassu Y., 2018, Rock Field Tests. In: Bobrowsky P.T., Marker B. (eds) Encyclopedia of Engineering Geology. Encyclopedia of Earth Sciences Series. Springer, Cham, pp.774 – 782.

Shakoor, A., Admassu, Y., 2016, Durability-based approach for designing cut slopes in weak rock units: *Environmental and Engineering Geoscience*, v. 22, pp.279 – 296.

Admassu, Y., Hamdan, H., Gautam, H., 2016, Multivariate statistical approach to re-evaluate the slake durability index test (ASTM 4644–08): *Engineering Geology*, v. 209, pp. 12-20.

Admassu, Y., Shakoor, A., 2015, Cut slope design for stratigraphic sequences subject to differential weathering – A case study from Ohio: *Environmental and Engineering Geoscience*, v. 21, pp.311 – 324.

Zaldivar, S, Admassu, Y, Luna, O y Reyes, J., 2014, Aplicación de DipAnalist en el Diseño de Estabilidad Cinemático de un Corte Minero de Grandes Dimensiones, *Proceedings, XXVIIth Reunion Nacional de Mecánica de Suelos e Ingeniería Geotécnica*, Puerto Vallarta, México, SMIG, pp RN_092.

Admassu, Y., Shakoor, A., 2014, Stability analysis of cut slopes in Ohio, USA-A quantitative analysis: In Lollino, G., Giordan, D., Crosta G., Corominas, J., Azzam, R., Wasowski, J. and Sciarra, N., (editors), Landslide Processes, *Proceedings, 12th Congress of the International Association for Engineering Geology and the Environment-Engineering Geology for Society and Territory,* Torino, Italy, Springer, Cham, Heidelberg, New York, Dordrecht, London, v.2, pp. 2057 – 2060.

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., 2010, Stratigraphic considerations for evaluating cut slope performance in rocks subject to differential weathering: In Williams, A.L., Pinches G.M., Chin, C.Y., McMorran, 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.

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.

Abstracts and Presentations (student names in bold)

Admassu, Y., 2025, Using High Resolution Digital Elevation Models (DEMs) and Street Level Imagery for Rock Cut Slope Inventory: *Southern Transport Geotechnical Engineering Conference,* Presentation in Williamsburg, VA.

Admassu, Y., 2025, The Use of High-Resolution Digital Elevation Models and the Mapillary Street Level Imagery for Rock Cut Slope Inventory and Rockfall Hazard Characterization*: Association of Environmental and Engineering Geologists*, Abstracts with Programs, p 88.

Admassu, Yonathan, James Madison University, admassyx@jmu.edu (TS #10)

Admassu, Y, Gugsa, T., 2023, Characteristics of ground fissures and their possible mode of development in lake Ziway area, Ethiopia: *Geological Society of America,* Abstracts with Programs. *Vol. 55, No. 6.*

Admassu, Y., 2023, Use of the cloudcompare software for semi automated rockfall hazard rating*: Association of Environmental and Engineering Geologists*, Abstracts with Programs, v.66, No. 4, p 67.

Carl, D., Admassu, Y., Garcia, A., 2022, Characterizing discontinuities in cut slopes as a way to predict potential rockfall hazards using lidar-slam technology*: Geological Society of America,* Abstracts with Programs. *Vol. 54, No. 5.*

Admassu, Y., Gugsa, T., 2022, The role of internal erosion in the development of ground fissures around Lake Ziway, Ethiopia*: Association of Environmental and Engineering Geologists*, Abstracts with Programs, v.65, No. 4, p 61.

Admassu, Y., 2021, Lessons Learnt From the use of Google Earth/ Google Street View for Rockfall Hazard Rating*: Association of Environmental and Engineering Geologists*, Abstracts with Programs, v.63, No. 4, p 30.

Whitmeyer, S., Admassu, Y., Haynes, J., McMillan, M., Pyle, E., 2020, Using ArcGIS Pro to provide geospatial data to students in a capstone course: *Geological Society of America* Abstracts with Programs.

Admassu, Y., **Maser, J**., 2019, Rockfall hazard assessment using vehicle-mounted terrestrial LiDAR data along US 33 highway in Virginia*: Association of Environmental and Engineering Geologists*, Abstracts with Programs, v.62, No. 4, p 68.

Admassu, Y., **Ligush, JP., Gribbin, M**, Y., 2017, Structure from motion (SFM) based slope stability exercise at James Madison University's Field Camp in Ireland*: Geological Society of America* Abstracts with Programs. Vol. 49, No. 6.

Gochenour, J., Admassu, Y., 2017, Applying discriminant analysis towards automated sinkhole mapping methods*: Geological Society of America* Abstracts with Programs. Vol. 49, No. 6

Swanger, W., Admassu, Y., 2017, Evaluating the use of Google Earth and Google Street View for rockfall hazard rating*: Association of Environmental and Engineering Geologists*, Abstracts with Programs, v.60, p 85.

Admassu, Y., 2017, Terrestrial LiDAR-based quantitative geologic rockfall hazard rating system (QG-RHRS)*: Association of Environmental and Engineering Geologists*, Abstracts with Programs, v.60, p 47.

Gochenour, J., Admassu, Y., 2017, Automated mapping of sinkholes using LiDAR derived DEM*: Geological Society of America* Abstracts with Programs. *Vol. 49, No. 3.*

Ligush, JP., Gribbin, M., and Admassu, Y., 2017, Comparing Terrestrial LiDAR with sfm for discontinuity measurements: Geological Society of America *Abstracts with Programs.* Vol. 49, No. 3

Admassu, Y., Shakoor, A., 2016, A durability-based approach for designing cut slopes in weak rock units in Ohio*: Association of Environmental and Engineering Geologists*, Abstracts with Programs, v.59, p 39.

Martin, C., Admassu, Y., Gipson, G., **Distler, L**., 2016, Use of polymers to strengthen weak erodible rocks affecting the stability of highway cut slopes*: Geological Society of America* Abstracts with Programs. *Vol. 48, No. 3*

Swanger, W., Admassu, Y., 2016, Using Google Earth's street view to rate cut slopes along highways with respect to rockfall hazards*: Geological Society of America* Abstracts with Programs. *Vol. 48, No. 3*

Admassu, Y., Hamdan, H., 2015, Multivariate statistical approach to re-evaluate the slake durability test (ASTM 4644 – 08)*: Association of Environmental and Engineering Geologists*, Abstracts with Programs, p 44.

Admassu, Y., Shakoor, A., 2015, Multifaceted approach to designing cut slopes subjected to differential weathering: A case study from Ohio*: Association of Environmental and Engineering Geologists*, Abstracts with Programs, p 44.

Admassu, Y., Hamdan, H., 2015, Terrestrial LiDAR based rockfall hazard rating for cut slopes along highways: A case study from Afton Mountain cut along I-64W, VA*: Association of Environmental and Engineering Geologists*, Abstracts with Programs, p 44.

Rowson, D., Admassu, Y., 2014, Geotechnical Investigation of an Embankment Slope Failure on the Campus of James Madison University, Harrisonburg, VA*: Geological Society of America* Abstracts with Programs. *Vol. 46, No. 3, p.84.*

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.

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.