Darrell G. Schulze

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Dr. Schulze is a soil scientist whose research and teaching interests span various aspects of soil science including pedology, digital soil mapping, soil mineralogy, soil chemistry, and international agriculture. He teaches a field-based course titled, *Soils and Landscapes*, for which he developed an innovative teaching with maps approach that is used in various courses at Purdue and elsewhere. He is also currently part of a team co-teaching *Introductory Soil Science*. He leads the development of Soil Explorer, a soil data visualization platform that is available as an app for iPhone/iPad and Android devices and as a website (SoilExplorer.net). He has conducted research internationally in Germany, Italy, Kenya, Uganda, Brazil, and Peru, and is currently a co-PI on the Soil Health and Environmental Vulnerability Assessment project that is part of the Arequipa Nexus Institute, a collaboration between Purdue University and the Universidad Nacional de San Agustín (UNSA) in Arequipa, Peru. He has advised 14 PhD and 5 MS students, and 3 postdocs and has hosted 4 long term (6-12 mo.) and 3 short term (1-3 mo.) visiting scholars.

Education

College/University	Location	Area	Degree	Year
Texas A&M University	College Station, TX	Agronomy	B.S.	1975
Texas A&M University	College Station, TX	Soil Science (Mineralogy)	M.S.	1977
Technical Univ. of Munich	Freising, Germany	Soil Science (Mineralogy)	Ph.D.	1982

Work Experience

Year	Position
1982 – Present	Assistant, Associate, Full Professor, Department of Agronomy, Purdue University
2009 – 2010	Associate Interim Department Head, Department of Agronomy, Purdue University
1998	Visiting Professor, Dept. of Soil Science, Federal University of Lavras, Lavras, Brazil
1977 – 1982	Graduate research assistant, Institute for Soil Science, Technical Univ. of Munich
1975 – 1977	Graduate research assistant, Soil & Crop Sciences Dept., Texas A&M University
1975	Soil Scientist (GS-7), USDA, Soil Conservation Service, Brenham, TX

Professional Awards and Honors

2021 Fellow, Indiana Academy of Science
2010 Fellow, Soil Science Society of America
2018 Seed for Success Award, Purdue University
2017 Cooperator Achievement Award, National Cooperative Soil Survey
2014 Soil Science Education Award, Soil Science Society of America
2009 Excellence in GIS Award in the Educational Category, Indiana Geographic Information Council

Recent Refereed Publications

Schulze, D. G., Rahmani, S. R., Minai, J. O., Johnston, C. T., Fulk-Bringman, S. S., Scott, J. R., Kong, N. N., Li, Y. S., & Mashtare, M. L. Jr. 2021. Virtualizing soil science field trips. Nat Sci Educ. 50:1–13. https://doi.org/10.1002/nse2.20046

Minai, J. O., Libohova, Z. & Schulze, D. G. (2021). Spatial prediction of soil properties of the Busia area Kenya using legacy soil data. Geoderma Regional, 25, e00366. https://doi.org/10.1016/j.geodrs.2021.e00366

Minai, J., Z Libohova, and D. G. Schulze. 2020. Disaggregation of the 1:100,000 Reconnaissance soil map of the Busia Area, Kenya using a soil landscape rule-based approach. Catena 195:104806. https://doi.org/10.1016/j.catena.2020.104806Schulze, D. G., N. C. Landin, P. R. Owens, J. J. Camberato. 2017. Evidence for a naturally occurring post-glacial acid sulfate weathering event in northwestern Indiana, USA. Geoderma 308:341-349.

Ngunjiri, M. W., Z. Libohova, P. R. Owens, D. G. Schulze. 2020. Landform pattern recognition and classification for predicting soil types of the Uasin Gishu Plateau, Kenya. Catena 188:104390. https://doi.org/10.1016/j.catena.2019.104390

Carvalho, G. S., J. R. Oliveira, N. Curi, D. G. Schulze, J. J. Marques. 2019. Selenium and mercury in Brazilian Cerrado soils and their relationships with physical and chemical soil characteristics. Chemosphere 218:412-415.

Ngunjiri, M. W., Z. Libohova, J. O. Minai, C. Serrem, P. R. Owens, D. G. Schulze. 2019. Predicting soil types and soil properties with limited data in the Uasin Gishu Plateau, Kenya. Geoderma Regional 16:e00210. https://doi.org/10.1016/j.geodrs.2019.e00210

Websites and Mobile Apps

Schulze, D. G., and Isee Network (2017 – 2021). Soil Explorer website. https://SoilExplorer.net . Went live on March 10, 2017 and has had 22,000 users through June 2021, for an average of ~15 users per day.

Schulze, D.G. and Isee Network. 2015 - 2021. Soil Explorer mobile app. Apple App Store, https://appsto.re/us/nbdy7.i. Launched on May 30, 2015. Available for the iPad only through July 27, 2020, available for both iPhone and iPad since then. Downloaded by 2,700 users through July 2021.

Schulze, D.G. and Isee Network. 2015 - 2021. Soil Explorer mobile app for Android. Google Play, https://play.google.com/store/apps/details?id=edu.purdue.ceris.soil_explorer. Launched on May 14, 2019. Installed by 3,100 users through June 2021.