Name & Surname: Ataallah Khademalrasoul

Date of Birth: 1981- Iran, Khuzestan

Address, Suburb, State, Postcode: Department of Soil Science & Engineering, Faculty of Agriculture, Shahid Chamran University of Ahvaz, Ahvaz, Iran.

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PROFESSIONAL PROFILE:

Assistant Professor of Soil Science in Shahid Chamran University (SCU) of Ahvaz.

EDUCATION BACKGROUND:

Ph.D.: Soil Management Resources (2014), Aarhus University, Aarhus, Denmark

Stay Abroad during Ph.D.: Soil erosion monitoring and measurement (Advanced scanner and rainfall simulators), Basel University, Switzerland

Thesis title:

"Determination of soil erosion and sedimentation affected by buffer zones and biochar amendment as best management practices"

MSc: Soil Physics and Conservation (2005), Shahid Chamran University of Ahvaz, Ahvaz, Iran

Dissertation title:

"Evaluation and comparison of WEPP (Water Erosion Prediction Project model) with PSIAC model in Emamzadeh Abdollah of Baghmalek watershed"

BS: Soil Science Engineering (2003), Shahid Chamran University of Ahvaz, Ahvaz, Iran

TEACHING AND TRAINING EXPERIENCE:

Soil erosion and conservation and wind erosion for BSc students, Advanced soil conservation and Hydrology for MSc students, Sustainable soil management, Soil Mechanics, and Application of new techniques and instruments for PhD students.

HONOURS AND AWARDS:

- Supported by the Ministry of Science and Technology as a top MSc student

INTERESTS AND RESEACH FIELDS:

- My primary research interest is in the area of watershed modeling-simulation and application of simulator models as a tool to evaluate watersheds and finally select the Best Management Practices (BMPs) to mitigate and control soil erosion and deposition.
- Application of Geomorphometry and Pedometery with Geographical Information System (GIS) and Remote Sensing (RS) to assess the effectiveness of topography and landscape on soil erosion and sedimentation in the field scale.
- Biochar production and its effect on soil physical, mechanical and erosional properties. Also bioenergy production from organic feedstocks.

RESARCH ACTIVITIES:

- Reviewer of Journal of Water and Soil (Ferdowsi Mashhad University)
- Reviewer of Journal of Agricultural Engineering (Shahid Chamran University of Ahvaz, SCU)

PUBLICATIONS:

JOURNAL PUBLICATIONS:

- Khademalrasoul, A. Naveed, M., Heckrath, G., Kumari, K.G.I.D., Jonge, L.W., Elsgaard, L., Vogel, H.J., Iversen, B.V., 2014. Biochar effects on soil aggregate properties under no-till maize. Soil Science, 179, 273-283.

- Ardebili S.S.M., Khademalrasoul, A. 2018. An analysis of Liquid-Biofuel from agricultural residues and animal fat (case study: Khuzestan Province). Journal of Cleaner Production. 24, 819-831.

- Khademalrasoul, A., Kuhn, N., Elsgaard, L., Hu, Y., Iversen, B.V., Heckrath, G. 2019. Short-term effects of biochar application on soil loss during a rainfall-runoff simulation. Soil Science. 184, 17-24.

- Khanifar, J. and Khademalrasoul, A. 2020. Multiscale comparison of LS factor calculation methods based on different flow direction algorithms in Susa Ancient landscape. Acta Geophysica. 68, 783-793.

- Shirazi, M., Khademalrasoul, A., Ardebili S.S.M. 2020. Multi-objective optimization of soil erosion parameters using response surface method (RSM) in the Emamzadeh watershed. Acta Geophysica. 68, 505-517.

- Khademalrasoul, A., Amerikhah, H. 2020. Assessment of soil erosion patterns using RUSLE model and GIS tools (case study: the border of Khuzestan and Chaharmahal Province, Iran). Modeling Earth System and Environment. 10, 1-11.

- Ardebili, S.M.S., and Khademalrasoul, A. 2020. An assessment of feasibility and potential of gaseous biofuel production from agricultural/animal wastes: a case study. Biomass Conversion and Biorefinery. 10, 1-10.

- Khanifar, J. and Khademalrasoul, A. 2020. Effects of neighborhood analysis window forms and derivative algorithms on the soil aggregate stability. Catena. 1-8.

- Rizehbandi, E., Khademalrasoul, A., Taghavi, M. 2020. Effects of recombinant synthetic organic and mineral mulches on physicomechanical properties of erodible soils using wind tunnel. Aeolian Research. 1-10.

- Khademalrasoul, A. and Chorom, M. 2006. Prediction of water erosion and deposition using WEPP model in Emamzadeh Abdollah Baghmalek watershed (Khuzestan Province). Water and Watershed. 2, 1-8.

- Landi, A., Barzegar, A.R., Sayyadi, J., Khademalrasoul, A. 2011. Assessment of soil loss using WEPP model and geographical information system. Journal of Spatial Hydrology. 1, 40-51.

- Raeesi, A., Sayyad, G.A., Khoramian, M., Khademalrasoul, A. 2012. The short-term effects of no tillage and traditional tillage hydraulic properties of silty clay loam soil at different water potential. Journal of Agricultural Engineering. 1, 27-37.

- Khademalrasoul, A., Amerikhah, H., Moezzi, A.A., Koraei, A. 2012. Effect of inoculation time on yield components of soybean in some Khuzestan calcareous soils. Plant Production Technology. BuAli Sina University. 1, 11-20.

- Alipour Babadi, M. Moezzi, A.A., Nouruzi Masir, M., Khademalrasoul, A. 2018. Effect of different feedstock and pyrolysis temperature on some chemical and physical properties of biochar. Iranian Journal of Soil and Water Research. 3, 537-547.

- Lohrasbi, H., Khademalrasoul, A., Farrokhian Firuzi, A. 2019. Effects of biochar and Zeoplant on physical and mechanical properties of erodible soils (case study: Bostan). Journal of Soil and Water. 5, 723-737.

- Khanifar, J., Khademalrasoul, A., Amerikhah, H. 2020. Modeling soil aggregate stability as an index of soil erodibility using geomorphometric parameters. Journal of Agricultural Engineering. 1, 45-60.

- Shirazi, M., Khademalrasoul, A., Ardebili, S.M.S. 2020. Evaluation of different supervised learning smart methods and response surface method to optimize factors affecting erosion (case study: Emamzadeh watershed of Baghmalek). Iranian Journal of Soil and Water Research. 7, 1653-1666.

- Khanifar, J., Khademalrasoul, A., Amerikhah, H. 2020. Effects of Digital Elevation Model (DEM) spatial resolution on soil landscape analysis (case study: Raakat watershed of Izeh, Khuzestan Province). Applied Soil Research. 1, 121-135.

- Rizehbandi, E., Khademalrasoul, A., Taghavi, M., 2020. Production of organic and mineral recombinant mulches and their effects on volumetric moisture of erodible soils. Iranian Journal of Soil and Water Research. 8, 2023-2037.

- Mohammadi, N. and Khademalrasoul, A. 2020. Investigation of biochar and Zeoplant application on mechanical properties of soils contaminated with total petroleum hydrocarbons (TPHs) in oil fields of Ahvaz. Soil Researches. 34, 411-423.

- Shirjandi, Sh., Khademalrasoul, A., Moradi Sabbzkuhi, A., Amerikhah, H. 2020. Planning the optimum placement of Gabions using AHP and NSGA-II algorithm (case study: Emamzadeh watershed). Agricultural Engineering. 3, 315-330.

- Neisi, H., Khademalrasoul, A., Amerikhah, H. 2021. Mapping of water erosion and deposition affected by different LS algorithms using WaTEM/SEDEM model. Journal of Water and Soil. 1, 67-82.

- Khanifar, J., Khademalrasoul, A., Amerikhah, H. 2021.modeling mean weight-diameter of soil aggregates based on vegetation indices in rangeland and forest land uses. Journal of Water and Soil Conservation. 27 (6), 201-214.

- Mohammadi, N. and Khademalrasoul, A. 2021. Assessment of Zeoplant and biochar of Sugarcane residual on mean weight diameter and Atterberg limits of soil contaminated with total petroleum hydrocarbon. Iranian Research of Water and Soil. 2, 395-407.

CONFERENCE PRESENTATIONS:

- Khademalrasoul, A., Amerikhah, H., Saffarian, R. (2006) Simulation of off-site effects of erosion on sediment load of Maroon upstream using WEPP mathematical model. The first water conference, Behbahan University.

- Khademalrasoul, A. and Chorom, M. (2006) Application of WEPP model as a tool to select best management practices for sustainable soil management. Soil, Environment and sustainable development. Tehran University, Karaj, Iran.

- Khademalrasoul, A., Amerikhah, H., Moezzi, A.A. (2006) Evaluation of phytoremediation of plants for remediation of oil contaminated soils at oil sites in Khuzestan Province. Soil, Environment and sustainable development. Tehran University, Karaj, Iran.

- Khademalrasoul, A., Amerikhah, H., Moezzi, A.A. (2007) Estimation of wind erosion using RWEQ model and comparison with IRIFR in Omidieh. The First National wind erosion congress. Yazd University, Yazd, Iran.

- Khademalrasoul, A., Amerikhah, H., Chorom, M. (2007) Estimation of water erosion and deposition using WEPP computer model in the South East of Khuzestan. 10th Soil Science Congress of Iran.

- Khademalrasoul, A. and Amerikhah, H. (2008) Investigation the Effect of conservational constructions on watershed quality index (WQI). The Fourth National Congress of Watershed Management Engineering. Faculty of Natural Resources of Tehran University. Tehran, Iran. 20-21 Feb 2008.

- Khademalrasoul, A., Amerikhah, H., Saffarian, R. (2008) Simulation of water quality from watersheds as effect of Management using SWAT Model. The Second National Conference of World Environmental Day. Tehran University, Tehran, Iran. 10-11 June 2008.

- Landi, A., Sayyadi, J., Barzegar, A.A., Khademalrasoul, A. (2009) Estimation of Erosion with Using WEPP Model and GIS in Izeh ´s Halaijan Watershed. 5th National Congress of Watershed Management Engineering (Sustainable Management of Natural Catastrophe). Faculty of Natural Resources of Tehran University. Tehran, 22-23 April 2009.

- Khademalrasoul, A., Amerikhah, H., Khademalrasoul, A. (2010) Estimation of Sediment Load in Aala ´s Baghmalek River with Integration of WEPP Model, GIS and Land Use. 8th International River Engineering Conference (8IREC) Shahid Chamran University 26-28th Jan 2010.

- Amerikhah, H. and Khademalrasoul, A. (2010) Investigation of efficiency of watersheds BMPs on land improvement and reducing soil erosion and sediment load using WEPP model. 8th International River Engineering Conference (8IREC) Shahid Chamran University 26-28th Jan 2010.

- Khademalrasoul, A., Amerikhah, H., Khademalrasoul, A. (2010) Determination of Air Permeability Coefficient (APC) of soil affected by organic treatments in calcareous soils in

Khuzestan. The National Conference on Water, Soil, Plant Sciences and Agricultural Mechanization. Dezful-Iran, 2-3th march 2010.

- Amerikhah, H. and Khademalrasoul, A. (2010) Investigation of efficiency of soil physical properties estimator models in Alluvial and young soils. The National Conference on Water, Soil, Plant Sciences and Agricultural Mechanization. Dezful-Iran, 2-3th march 2010.

- Khademalrasoul, A. and Salaripour, M. (2011) Investigation of watershed management practices to mitigate off-sites effects of erosion using simulator models. The first congress of National Resources Management, Kurdistan, Iran.

- Khademalrasoul, A., Naveed, M., Heckrath, G., Lis, Iversen, B.V. (2013) Investigation of biochar effects on aggregate stability as an index of soil erosion. December, 2013, The Future of Biochar, Groningen, The Netherlands.

- Khademalrasoul, A., Naveed, M., Heckrath, G., Lis, Iversen, B.V. (2013) Investigation of biochar and Slurry effects on aggregate stability as an index of soil erosion using X-ray computed tomography (X-ray CT). November, 2013. ASA, CSSA, and SSSA Annual Soil Meeting, Ohio State the USA.

- Khademalrasoul, A., Kuhn, N., Hu, Y., Iversen, B.V., Goswin, H. (2014) Investigation of biochar effects as a non-structural BMP on soil erosional responses using a rainfall simulator. EGU Assembly, April, 2013. Vienna, Austria.

- Khademalrasoul, A. (2015) Evaluation of biochar application as an organic mulch for dust control. The first International conference on Dust storm. Shahid Chamran University of Ahvaz, Ahvaz, Iran.

- Khademalrasoul, A., Neisi, H., Sayyad, G.A. (2016) Application of WaTEM/SEDEM as a tool for sustainable management of watersheds (Moarref and Zoji of Shush). The first conference of International Challenges on Environment.

- Khademalrasoul, A. and Neisi, H. (2016) Application of WEPP model as a tool for soil sustainable management. National Conference of research findings in Natural and Agricultural Ecosystems.

- Khademalrasoul, A. (2016) Comprehensive watershed management and buffer zone planning using spatially distributed modeling (WaTEM). The first conference of International Challenges on Environment

- Amiri Nejadtork, S., Moezzi, A., Khademalrasoul, A., Farrokhian Firuzi, A. (2017) Study the effects of pyrolysis temperature on chemical characteristics of biochar produced from Cane sewage. 15th National Soil Congress of Iran. Isfahan.

- Khademalrasoul, A. and Amerikhah, H. (2017) Geomorphometric investigation and prediction of water erosion in the Khuzestan ´s Emamzadeh Abdullah watershed. 15th National Soil Congress of Iran. Isfahan.

- Amerikhah, H. and Khademalrasoul, A. (2017) Evaluation of soil forming factors by analyzing geomorphometry data in the soils of the Khuzestan s Emamzadeh Abdullah watershed.

- Khademalrasoul, A. and Ardebili, S.M.S. (2018) Potential of oil seeds seeding around the fields to control the dust storm in Khuzestan. The 4th National Conference of wind erosion and dust storm. Yazd University, Yazd, Iran.

- Khanifar, J., Khademalrasoul, A., Amerikhah, H. (2018) Estimation of aggregate stability using topography factors. The first Notional conference of sustainable development in Agricultural Sciences and Natural Resources.

- Khanifar, J., Khademalrasoul, A., Amerikhah, H. (2018) Study the effect of DEM resolution on geomorphometric modeling of soil aggregate. The first Notional conference of sustainable development in Agricultural Sciences and Natural Resources.

- Khanifar, J., Khademalrasoul, A., Amerikhah, H. (2019) Evaluation of DEM spatial resolution on soil properties and sediment transportation index (STI). The 11th international conference of River Engineering. Shahid Chamran University of Ahvaz, Ahvaz, Iran.

- Neisi, H., Khademalrasoul, A., Amerikhah, H. (2019) Water erosion estimation using WaTEM/SEDEM model to select the best management practices (BMPs). The 11th international conference of River Engineering. Shahid Chamran University of Ahvaz, Ahvaz, Iran.

- Shirazi, M., Khademalrasoul, A., Ardebili, S.M.S. (2019) Evaluation and optimization of electrical conductivity on water erosion using response surface methodology (RSM). The 16th National Soil Congress, Zanjan, Iran.

- Alipour Babadi, M., Moezzi, A.A., Nouruzi Masir, M., Khademalrasoul., A. (2019) Study of effects of the biochar produced from sugarcane bagasse, rice straw and Conocarpus on some of chemical properties of the soil. The 16th National Soil Congress, Zanjan, Iran.

- Khademalrasoul, A. and Amerikhah, H. (2019) Determination of Watershed Management Improvement Index using WEPP model based land suitability for soil erosion control. The 16th National Soil Congress, Zanjan, Iran.

- Shirazi, M., Khademalrasoul, A., Ardebili, S.M.S. (2019) Evaluation of hydraulic parameters on water erosion using response surface methodology (RSM). The 16th National Soil Congress, Zanjan, Iran.

- Lohrasbi, H., Khademalrasoul, A., Farrokhian Firuzi, A. (2019) Effects of biochar and Zeoplant on dust control in erosional hotspots. The 16th National Soil Congress, Zanjan, Iran.

- Khanifar, J. and Khademalrasoul, A. (2020) The relationship between Bedrock geometry and soil solum at a regional scale. Geomorphometry 2020, University of Perugia.

- Khanifar, J. and Khademalrasoul, A. (2020) Importance of Multi-Scale Geomorphometric Algorithms in Soil-Landscape Analysis. The 7th National Conference of Geomorphology. Kharazmi University, Tehran, Iran.

RESEARCH PROJECTS:

- Study of geomorphological water erosion in Emamzadeh Abdollah Watershed of Baghmalek
- Potential of field energy establishment in Khuzestan Province for soil erosion control
- Study of soil erosion variations affected by climate changes using ARIMA-RUSLE models
- Evaluation of slow pyrolysis factors produced from Prosopis farcta and its effectiveness on soil chemical and physical of erodible soils

BOOKS:

- Biochar and its application in Soil Science, Shahid Chamran University of Ahvaz Press.
- Translation of Advances in Watershed Science and Assessment

PROFESSIONAL MEMBERSHIPS:

- Member of International Soil Science Association
- Member of National Soil Science Association
- Member of National Watershed Management of Iran

LANGUAGES:

Persian (native)

English (medium)