

# Curriculum Vitae

## Dr. Abdulvahed KHALEDI DARVISHAN

### PERSONAL INFORMATION

First Name: Abdulvahed  
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### ACADEMIC EMPLOYMENT

<i>Current Position</i> <i>Dec 2019 - Present</i>	<b>Associate Professor</b> Tarbiat Modares University, Department of Watershed Management Tehran, Iran
<i>Feb 2013 – Dec 2019</i>	<b>Assistant Professor</b> Tarbiat Modares University, Department of Watershed Management Tehran, Iran
<i>Apr 2012 – Sep 2012</i>	<b>Sabbatical Researcher</b> Warsaw University of Life Sciences (WULS) - SGGW, Department of Water Engineering and Environmental Restoration Warsaw, Poland

### EDUCATION

<i>Feb 2009 – Jan 2013</i>	<b>Tarbiat Modares University</b> Ph.D., Department of Watershed Management Thesis: Effects of Initial Soil Moisture Content on Runoff and Soil Erosion Processes
<i>Sep 2003 – Jan 2005</i>	<b>Tarbiat Modares University</b> M.A., Department of Watershed Management Thesis: Downstream Changes of River Bed Sediment Morphometry
<i>Sep 1999 – Jul 2003</i>	<b>Razi University</b> B.A., Department of Rangeland and Watershed Management

## **MAIN SPECIALIZATION**

- Soil Erosion
- Sediment Fingerprinting

## **RESEARCH INTERESTS**

- Soil Erosion and Sediment Yield Modelling
- Sediment Fingerprinting and Source Identification
- Sediment Budgeting
- Application of Image Processing Techniques in Soil Erosion Studies and Sediment Morphometry
- Designing and Construction of Rainfall Simulators

## **RESPONSIBILITIES and MEMBERSHIP**

- Head of the Department of Watershed Management Engineering, Faculty of Natural Resources, Tarbiat Modares University, July 2025 for two years.
- Councilor of the World Association of Soil and Water Conservation (WASWAC), Sep. 2023 for two years.
- Member of the World Association of Soil and Water Conservation (WASWAC), 2023-2028.
- Vice President of the Watershed Management Society of Iran (WMSI), from Mar. 2023.
- Member of the Board of Directors, Watershed Management Society of Iran (WMSI), from 2020.
- Executive secretary, 3<sup>rd</sup> International Youth Forum of World Association of Soil and Water Conservation, Faculty of Natural Resources, Tarbiat Modares University, Iran, October 16-21, 2021.
- Member of the Asian Council of Science Editors
- Member of the Editorial Board of the Journal "Soil Erosion and River Channel Processes"
- Member of the Editorial Board of Journal of Watershed Engineering and Management
- Member of the Editorial Board of Extension and Development of Watershed Management
- Member of the organizing committee of Agrosym International Symposium in Bosnia and Herzegovina (2016 to 2021)
- Member of the Editorial Board of AGROFOR International Journal
- Member of the scientific committee of GEA (Geo-Eco-Eco-Agro) international conference in Montenegro (2020 and 2025)
- Member of the scientific committee of NIKITINSKIE READINGS international conference in Russia (2019 and 2023)

## **PUBLICATIONS**

### **Books - Written**

**Khaledi Darvishan, A.**, Jafarpour, A., Janizadeh, S., Ebrahimi, Z., Avand, M., Farzi, P., Jafari, F., Ayobi Ayoblu, S., Katebi Kord, A., 2020. "Application of SWOT Analysis in Strategic Watershed Management", *New Approaches in Applied Management of Watershed*. Gorgan University of Agricultural Sciences & Natural Resources, 267 p.

Sadeghi, S.H., Hazbavi, Z., Gholami, L., **Khaledi Darvishan, A.**, 2017. *Soil and Water Conservation using Amendments*. Tarbiat Modares University, 467 p.

### **Books - Translated**

Gholami, L., Amani, M., **Khaledi Darvishan, A.**, Safavian, A., 2019. *Manual on small earth dams: a guide to siting, design and construction (Translated)*. Sari Agricultural Sciences & Natural Resources University. 179 p.

### **Books and Proceedings - Edited**

**Khaledi Darvishan, A.**, Sadeghi, S.H.R., Moosavi, V., (Eds), 2021. *Proceeding of the 3<sup>rd</sup> International Youth Forum on Soil and water Conservation*, 16-21 October 2021, 100 p.

Sadeghi, S.H.R., **Khaledi Darvishan, A.**, 2010. *Proceedings of 6<sup>th</sup> National Seminar on Watershed Management and 4th National Seminar on Soil Erosion and Sediment*, 28-29 April 2010, 262 p.

### **Peer-Reviewed Journal Articles (Published in English)**

1. **Khaledi Darvishan, A.**, Pourbakhshi, S. and Riahi Bakhtiari, A., 2026. Comparative contribution of planted and natural forest to sediment yield using biological indicators of TOC and n-alkanes. *International Journal of Sediment Research*, *In Press, Corrected Proof*. <https://doi.org/10.1016/j.ijsrc.2025.09.005>
2. Sedighi, F., **Khaledi Darvishan, A.**, Zare, M.R., Parvizi, Y. and Goli Jirandeh, A., 2026. High resolution analysis of erosion/sedimentation map and management effects: Integrating <sup>137</sup>Cs and drone-based sediment connectivity approaches. *Soil and Tillage Research*, 260: 107142. <https://doi.org/10.1016/j.still.2026.107142>
3. Kalehhouei, M., Sadeghi, S.H. and **Khaledi Darvishan, A.**, 2026. Variability of splash and interrill erosion under simulated downward wind-driven rainfall. *Soil and Tillage Research*, 260: 107127. <https://doi.org/10.1016/j.still.2026.107127>
4. Liu, Q., Sun, W., **Khaledi Darvishan, A.**, Gholami, L., Wang, Y., Cui, H., Wei, W., Zhang, H. and Liu, S., 2026. 12-Year straw and manure amendments control rill scouring through enhanced humification and aggregate stabilization. *Soil and Tillage Research*, 257: 106957. <https://doi.org/10.1016/j.still.2025.106957>
5. Sadeghi, S.H., Behnia, N., Chamani, R., Moosavi, V., Khiavi, A.N., Shoushtari, M.H., Nouri, H., Sadeghi, P., Kalehouei, M., Gharemahmudli, S., Tavosi, M., Zabihi Silabi, M., **Khaledi Darvishan, A.**, Vafakhah, M., Moradi Rekabdar Kolaei, H., 2026. National watershed health diagnosis: A pressure-state-response assessment of Iran's 3<sup>rd</sup>-order watersheds. *Ecological Indicators*, 183, p.114572. <https://doi.org/10.1016/j.ecolind.2025.114572>
6. Akbari Emamzadeh, F., **Khaledi Darvishan, A.**, Nosrati, K., Vafakhah, M., Collins, A.L., 2025. Intra-storm variations in the contributions of geological formations to suspended

- sediment: a comparison between Bayesian and FingerPro sediment fingerprinting methods. *Environmental Science and Pollution Research*, 30: 112-124. <https://doi.org/10.1007/s11356-025-37330-2>
7. Zaki, S.A., Sadeghi, S.H., Vafakhah, M. and **Khaledi Darvishan, A.**, 2025. Decoding suspended sediment dynamics in representative watersheds of Iran's Caspian Sea Basin. *Hydrological Sciences Journal*, 1–15. <https://doi.org/10.1080/02626667.2025.2578242>
  8. Beiranvandi, V., **Khaledi Darvishan, A.**, Sadeghi, S.H.R., 2025. Use of geochemical tracers to determine the sources for Riverine sediment with different sizes in a forest-agricultural watershed, northern Iran. *Environmental and Sustainability Indicators*, 28, 100951. <https://doi.org/10.1016/j.indic.2025.100951>
  9. Akbari Emamzadeh, F., **Khaledi Darvishan, A.**, Vafakhah, M., Nosrati, K., Collins, A.L., 2025. Variable spatio-temporal source contributions during storm hydrographs revealed by composite fingerprinting. *Journal of Hydrology: Regional Studies*, 61: 102662, <https://doi.org/10.1016/j.ejrh.2025.102662>
  10. Zabihi, M., Moradi, H.R., **Khaledi Darvishan, A.**, Gholamalifard, M., 2025. Sensitivity analysis of climatic factors in water yield modeling in the Talar watershed; an ecosystem service perspective. *Water and Soil Management and Modeling (Special Issue: Climate Change and Effects on Water and Soil)*, 5: 101-120. <https://doi.org/10.22098/mmws.2025.17808>
  11. Naderi Marangalo, N., Sadeghi, S.H., Erfanzadeh, R. and **Khaledi Darvishan, A.**, 2025. Deciphering runoff and soil loss processes during various phenological stages of *Trifolium pratense* at small plot scale. *Soil Science Society of America Journal*, 89(4): e70100. <https://doi.org/10.1002/saj2.70100>
  12. Kamari Yekdangi, F., **Khaledi Darvishan, A.**, Aghabeigi Amin, S. 2025. Prioritization of factors affecting annual soil erosion and sediment yield using combined G2-GeoDetector approach. *Modeling Earth Systems and Environment*, 11, 284. <https://doi.org/10.1007/s40808-025-02484-y>
  13. Kalehhouei, M., Sadeghi, S.H., **Khaledi Darvishan, A.** Hasanzadeh, N., 2025. In-depth dynamic analysis of raindrop characteristics under varying intensities using image processing. *Hydrological Sciences Journal*, 1-11. <https://doi.org/10.1080/02626667.2025.2508892>
  14. Ghaderi Dehkordi, N., **Khaledi Darvishan, A.**, Zare, M.R. Porto, P., 2025. Erosional History by Combining  $^{210}\text{Pb}_{\text{ex}}$  and  $^{137}\text{Cs}$  Methods with Sediment Fingerprinting and Measurements. *Scientific Reports*, 15: 18165. <https://doi.org/10.1038/s41598-025-02512-y>
  15. Havasi, M., Sadeghi, S.H., **Khaledi Darvishan, A.**, Erfanzadeh, R., 2025. Controllability of runoff and soil loss in laboratory plots across different growth stages of *Agropyron desertorum*. *Journal of Hydrology*, 661(A): 133470. <https://doi.org/10.1016/j.jhydrol.2025.133470>
  16. Komaki, N., Riyahi Bakhtiari, A., **Khaledi Darvishan, A.**, 2025. International pellet watch; origins and monitoring of oil markers in surface sediments and plastic resin pellets in southern Caspian Sea, Iran. *Science of The Total Environment*, 964: 178531. <https://doi.org/10.1016/j.scitotenv.2025.178531>

17. Haji, Kh., **Khaledi Darvishan, A.**, Mostafazadeh, R., 2025. Assessment of the G2 model estimations and comparing it with erosion plots and observed sediment data in the Southern Caspian Sea river basins. *Journal of Hydrology: Regional Studies*, 57: 102179. <https://doi.org/10.1016/j.ejrh.2025.102179>
18. Ghaderi Dehkordi, N., **Khaledi Darvishan, A.**, Zare, M.R., Porto, P., 2025. Temporal Changes in the Average Contribution of Land Uses in Sediment Yield Using the <sup>137</sup>Cs Method and Geochemical Tracers. *Water*, 17(1): 73. <https://doi.org/10.3390/w17010073>
19. Mohammad Jafari Dehkordi, S., Riahi Bakhtiari, A., Vafakhah, M., **Khaledi Darvishan, A.**, 2025. Origin of Tar Balls Along the Beaches of Genaveh Region, Persian Gulf. *Archives of Environmental Contamination and Toxicology*, 88: 55-75. <https://doi.org/10.1007/s00244-024-01105-6>
20. Zarei, R., **Khaledi Darvishan, A.**, Porto, P. and Zare, M.R., 2024. Using radiotracers and topographic metrics for sediment budgeting at pixel and hillslope scales: A case study from western Iran. *Ecological Indicators*, 167, 112711. <https://doi.org/10.1016/j.ecolind.2024.112711>
21. Haji, K., **Khaledi Darvishan, A.**, Mostafazadeh, R. 2024. Soil erosion and sediment sourcing in the Hyrcanian forests, Northern Iran: an integration approach of the G2loss model and sediment fingerprinting technique. *Modeling Earth Systems and Environment*, 10: 1897–1914. <https://doi.org/10.1007/s40808-023-01879-z>
22. Karimi, N., Gholami, L., **Khaledi Darvishan, A.**, Kavian, A. 2024. Tracing suspended and bed sediments during high and low water periods using geochemical characteristics - Case study: Vazrood watershed, northern Iran. *Journal of Mountain Science*, 21(2): 470-483. <https://doi.org/10.1007/s11629-023-8117-3>
23. Sadeghi, S.H., Chamani, R., Silabi, M.Z., Tavosi, M., Katebikord, A., **Khaledi Darvishan, A.**, Moosavi, V., Sadeghi, P.S., Vafakhah, M. and Rekabdarkolaei, H.M., 2023. Watershed health and ecological security zoning throughout Iran. *Science of The Total Environment*, p.167123. <https://doi.org/10.1016/j.scitotenv.2023.167123>.
24. Kalehhouei, M., Sadeghi, S.H., **Khaledi Darvishan, A.**, 2023. Changeability of runoff and soil loss from inclined mid-sized plots under simulated upward wind-driven rain. *Catena*, 221, 107453. <https://doi.org/10.1016/j.catena.2023.107453>.
25. Mirchooli, F., Dabiri, Z., Strobl, J., **Khaledi Darvishan, A.**, Sadeghi, S.H., 2023. Spatial and Temporal Dynamics of Rangeland Ecosystem Services Across the Shazand Watershed, Iran. *Rangeland Ecology & Management*, 90, 45-55. <https://doi.org/10.1016/j.rama.2023.05.005>.
26. Mohammadi, M., **Khaledi Darvishan, A.**, Bahramifar, N., Alavi, S.J., 2023. Spatio-temporal suspended sediment fingerprinting under different land management practices. *International Journal of Sediment Research*, 38(4): 481-493. <https://doi.org/10.1016/j.ijsrc.2023.02.003>.
27. Kalehhouei, M., Sadeghi, S.H., **Khaledi Darvishan, A.**, 2023. Changes in raindrop properties due to wind blowing using image processing. *Catena*, 221, 106789. <https://doi.org/10.1016/j.catena.2022.106789>
28. Sedighi, F., **Khaledi Darvishan, A.**, Golosov, V., Zare, M.R., Spalevic, V., 2022. Influence of land use on changes of sediment budget components: western Iran case study. *Turkish Journal of Agriculture and Forestry*, 46(6): 838-851. <https://doi.org/10.55730/1300-011X.3046>

29. **Khaledi Darvishan, A.**, Katebikord, A., Mohamad Amini, H., Gholami, L., Filipovic, M., Spalevic, V., 2022. Evaluation of Synthetic–Colour–Contrast Aggregates for Soil Splash Measurement. *Journal of Environmental Protection and Ecology*, 23(8): 3433–3439.
30. Sadeghi, S.H., Vafakhah, M., Moosavi, V., Pourfallah Asadabadi, S., Sadeghi, P.S., **Khaledi Darvishan, A.**, Bagheri Fahraji, R., Mosavinia, S.H., Majidnia, A., Gharemahmudli, S., Moradi Rekabdarkolaei, H.R., 2022. Assessing the health and ecological security of a human induced watershed in central Iran. *Ecosystem Health and Sustainability*, 8(1): 2090447. <https://doi.org/10.1080/20964129.2022.2090447>
31. Sadeghi, S.H., Mirchooli, F. and **Khaledi Darvishan, A.**, 2022. Spatiotemporal Dynamic of Environmental Indices of Watershed Sustainability in Connection with Land-use Change. *Ecosystem Health and Sustainability*, 8(1): 2024454. <https://doi.org/10.1080/20964129.2021.2024454>
32. Gholami, L., Hasanzadeh, N., **Khaledi Darvishan, A.**, Younesi, H., 2022. Individual and combined application of powder and soluble nanoclay and biochar on hydrological responses and soil loss at plot scale. *Arabian Journal of Geoscience*, 15, 50. <https://doi.org/10.1007/s12517-021-08242-5>
33. Haji, Kh., **Khaledi Darvishan, A.**, Mostafazadeh, R., 2022. Identification of Erosion Critical Areas Based on Soil Erodibility and Terrain Influence Factors in the Iranian Part of the Caspian Sea Basin. *Agriculture and Forestry*, 68(2): 35-47.
34. Mohammadi, M., **Khaledi Darvishan, A.**, Dinelli, E., Bahramifar, N., Alavi, S.J., 2022. How does land use configuration influence on sediment heavy metal pollution? Comparison between riparian zone and sub-watersheds. *Stochastic Environmental Research and Risk Assessment*, 36: 719-734.
35. Mirchooli, F., Sadeghi, S.H., **Khaledi Darvishan, A.**, Strobl, J. 2021. Multi-dimensional assessment of watershed condition using a newly developed barometer of sustainability. *Science of the Total Environment*, 791: 148389.
36. Abdollahi, Z., Sadeghi, S.H., **Khaledi Darvishan, A.**, 2021. Detailed procedure for outdoor measurement of raindrop size distribution using photogrammetry. *Journal of Hydrology and Hydromechanics*, 69(2): 171-179.
37. Mohammadi, Sh., Balouei, F., Haji, Kh., **Khaledi Darvishan A.**, Karydas, C.G. 2021. Country-scale spatio-temporal monitoring of soil erosion in Iran using the G2 model. *International Journal of Digital Earth*, 14(8): 1019-1039.
38. Mohammadi, M., **Khaledi Darvishan, A.**, Spalevic, V., Dudic, B., Billi, P. 2021. Analysis of the Impact of Land Use Changes on Soil Erosion Intensity and Sediment Yield Using the IntErO Model in the Talar Watershed of Iran. *Water*, 13(6): 881.
39. Gholami, L., **Khaledi Darvishan, A.**, Spalevic, V., Cerda, A., Kavian, A. 2021. Effect of storm pattern on soil erosion in damaged rangeland; field rainfall simulation approach. *Journal of Mountain Science*, 18(3): 706-715.
40. Sedighi, F., **Khaledi Darvishan, A.**, Zare, M.R., 2021. Effect of Watershed Geomorphological Characteristics on Sediment Redistribution. *Geomorphology*, 375: 107559.
41. Sedighi, F., **Khaledi Darvishan, A.**, Golosov, V., Zare, M.R., 2020. Relationship between precipitation and inventories of fallout radionuclides ( $^{137}\text{Cs}$  and  $^{210}\text{Pb}$ ) in the undisturbed soils around the world: A review. *Eurasian Soil Science*, 53(9): 332-1341.

42. Mirchooli, F., Sadeghi, S.H., **Khaledi Darvishan, A.**, 2020. Analyzing spatial variations of relationships between Land Surface Temperature and some remotely sensed indices in different land uses. *Remote Sensing Applications: Society and Environment*, 19: 100359.
43. Mirchooli, F., Kiani-Harchegani, M., **Khaledi Darvishan, A.**, Falahatkar, S. and Sadeghi, S.H., 2020. Spatial distribution dependency of soil organic carbon content to important environmental variables. *Ecological Indicators*, 116: 106473.
44. Zabihi, M., Moradi, H., Gholamalifard, M., **Khaledi Darvishan, A.** and Fürst, C., 2020. Landscape Management through Change Processes Monitoring in Iran. *Sustainability*, 12(5): 1753.
45. El Mouatassime, S., Boukdir, A., Karaoui, I., Skataric, G., Nacka, M., **Khaledi Darvishan, A.**, Sestras, P. and Spalevic, V., 2019. Modelling of soil erosion processes and runoff for sustainable watershed management: Case study Oued el Abid Watershed, Morocco. *Agriculture & Forestry*, 65(4): 241-250.
46. **Khaledi Darvishan, A.**, Mohammadi, M., Skataric, G., Popović, S.G., Behzadfar, M., Sakuno, N.R.R., Mincato, R.L. and Spalevic, V., 2019. Assessment of Soil Erosion, Sediment Yield and Maximum Outflow, Using Intero Model (Case Study: S8-Inta Shirindarreh Watershed, Iran). *Agriculture & Forestry*, 65(4): 203-210.
47. Fakhari, M.A., Lotfalian, M., Hosseini, S.A. and **Khaledi Darvishan, A.**, 2019. Using Wood-Shred, Rice-Straw and Brush-Wood-Dams with Planting Seedlings to Runoff and Erosion Control in a Forest Road Fill Slope. *Croatian Journal of Forest Engineering* 40(2): 327-339.
48. Aliramayee, R., **Khaledi Darvishan, A.** and Arabkhedri, M., 2019. Investigating the hydrological response and nutrient loss in rainfed lands in northeast of Iran using rainfall simulator. *Agriculture & Forestry*, 65(2): 99-112.
49. Mohammadi, M., **Khaledi Darvishan, A.** and Bahramifar, N., 2019. Spatial distribution and source identification of heavy metals (As, Cr, Cu and Ni) at sub-watershed scale using geographically weighted regression. *International Soil and Water Conservation Research*. 7 (3): 308-315.
50. Nikolic, G., Spalevic, V., Curovic, M., **Khaledi Darvishan, A.**, Skataric, G., Pajic, M., Kavian, A. and Tanaskovik, V., 2019. Variability of Soil Erosion Intensity Due to Vegetation Cover Changes: Case Study of Orahovacka Rijeka, Montenegro. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, 47(1): 237-248.
51. **Khaledi Darvishan, A.**, Derikvandi, M., Aliramaee, R., Khorsand, M., Spalevic, V., Gholami, L. and Vujacic, D., 2018. Efficiency of Intero Model to Predict Soil Erosion Intensity and Sediment Yield in Khamsan Representative Watershed (West of Iran). *AGROFOR International journal*, 3(2): 22-31.
52. Sadeghi S.H.R., Gharemahmudli S., Kheirfam H., **Khaledi Darvishan A.**, Kiani Harchegani M., Saeidi P., Gholami L. and Vafakhah M., 2018. Effects of type, level and time of sand and gravel mining on particle size distributions of suspended sediment. *International Soil and Water Conservation Research*, 6: 184-193.
53. Gholami, L., Hasanzadeh, N. and **Khaledi Darvishan, A.**, 2018. Effect of Sawdust on Splash Erosion in Laboratory Condition. *Agriculture & Forestry*, 64(1): 51-56.

54. Zabihi, M., Mirchooli, F., Motevalli, A., **Khaledi Darvishan, A.**, Pourghasemi, H.R., Zakeri, M.A., and Sadighi, F. 2018. Spatial modelling of gully erosion in Mazandaran Province, northern Iran. *Catena*, 161: 1-13.
55. Spalevic, V., Radanovic, D., Skataric, G., Billi, P., Barovic, G., Curovic, M., Sestras P. and **Khaledi Darvishan, A.**, 2017. Ecological-Economic (Eco-Eco) Modelling in the Mountainous River Basins: Impact of Land Cover Changes on Soil Erosion. *Agriculture & Forestry*, 63(4): 9-25.
56. Vujacic, D., Barovic, G., Djekovic, V., Andjelkovic, A., **Khaledi Darvishan, A.**, Gholami, L., Jovanovic, M. and Spalevic, V., 2017. Calculation of Sediment Yield Using the River Basin and Surface and Distance Models A Case Study of the Sheremetski Potok Watershed Montenegro. *Journal of Environmental Protection and Ecology*, 18(3): 1193-1201.
57. **Khaledi Darvishan A.**, Behzadfar M., Spalevic V., Kalonde P., Ouallali A., and Mouatassime E.S. 2017. Calculation of sediment yield in the S2-1 watershed of the Shirindareh river basin, Iran. *Agriculture & Forestry*, 63(3): 23-32.
58. Spalevic, V., Lakicevic, M., Radanovic, D., Billi, P., Barovic, G., Vujacic, D., Sestras, P., AND **Khaledi Darvishan, A.**, 2017. Ecological-Economic (Eco-Eco) Modelling in the River Basins of Mountainous Regions: Impact of Land Cover Changes on Sediment Yield in the Velicka Rijeka, Montenegro. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, 45(2): 602-610.
59. Katebikord, A., **Khaledi Darvishan, A.**, and Alavi, J. 2017. Changeability of Soil Erosion Variables in Small Field Plots from Different Rainfall Durations with Constant Intensity. *Journal of African Earth Sciences*, 129: 751-758.
60. Gholami, L., **Khaledi Darvishan, A.**, and Kavian, A. 2016. Wood chips as soil conservation in field conditions. *Arabian Journal of Geosciences*, 9(19): 729: 1-11.
61. **Khaledi Darvishan, A.**, Gholami, L., Hadi Ghorghi, J., Spalević, V., Katebikord, A. and Mohamad Amini, H. 2016. Effect of Exclosure on Runoff, Sediment Concentration and Soil Loss in Erosion Plots. *AGROFOR International journal*, 1(1): 49-57.
62. **Khaledi Darvishan, A.**, Homayonfar, V. and Sadeghi, S.H.R., 2016. The impact of standard preparation practice on the runoff and soil erosion rates under laboratory conditions. *Solid Earth* 7(5): 1293-1302.
63. Sadeghi, S.H.R., Sharifi Moghadam, E. and **Khaledi Darvishan, A.**, 2016. Effects of subsequent rainfall events on runoff and soil erosion components from small plots treated by vinasse. *Catena*, 138: 1-12.
64. Sadeghi, S.H.R., Gholami, L., Sharifi Moghadam, E., **Khaledi Darvishan, A.** and Homae, M., 2015. Scale Effect on Runoff and Soil Loss Control Using Rice Straw Mulch under Laboratory Conditions. *Solid Earth*, 6: 1–8.
65. **Khaledi Darvishan A.**, Banasik K., Sadeghi S.H.R., Gholami L. and Hejduk L. 2015. Effects of rain intensity and initial soil moisture on hydrological responses in laboratory conditions. *International Agrophysics*, 29(2): 165-173.
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69. **Khaledi Darvishan, A.**, Sadeghi, S.H.R., Homaei, M. and Arabkhedri, M., 2014. Measuring Sheet Erosion using Synthetic Color-Contrast Aggregates. *Hydrological Processes*, 28(15): 4463-4471.
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#### **Peer-Reviewed Journal Articles (Published in Persian)**

1. Hadi Ghorghi, J., Derakhti, S., Abdollahi, Z., Gholami, L., **Khaledi Darvishan, A.** 2025. 'Comparative Evaluation of Soil Erosion and Sediment Yield Estimation in the Dowlatabad Watershed Using the EPM, MPSIAC, and IntErO Models. *Desert Ecosystem Engineering*, 14(48): 25-40.
2. Ahmadi S, Kavian A, Soleimani K, Shahidi K, **Khaledi Darvishaan A.** 2025. Assessment and Prediction of Land Use Changes Using a Modeling Approach in a Geographic Information System Environment (Case Study: Talar Watershed). *Iranian Journal of Watershed Management Science and Engineering*, 19(68): 17-31.
3. Derakhti, S., Gholami, L., Kavian, A., **Khaledi Darvishan, A.** 2025. Evaluation of Heavy Metal Contamination in Different Land Uses of the Vaz Watershed. *Irrigation and Water Engineering*, 15(4): 1-22.
4. Zabihi, M., Moradi, H., **Khaledi Darvishan, A.**, Gholamalifard, M. 2025. Spatiotemporal variations analysis of water yield ecosystem service in the Hyrcanian region of northern Iran using the InVEST model. *Water and Soil Management and Modelling*, 5(3): 296-308.
5. Zarei, R., **Khaledi Darvishan, A.**, Zare, M. R., Potro, P. 2025. Analysis of the Relationship between Sediment Budget Components and Topographic Metrics at the Hillslope Scale in Control Sub-watershed of the Khamsan Representative-paired Watershed. *Watershed Management Research*, 38(2): 118-138.
6. Ahmadi, S., Kavian, A., Soleimani, K., Shahidi, K., **Khaledi Darvishan, A.** 2025. Predicting the Effect of Climate Change on Rainfall Erosivity in the Talar Watershed of Mazandaran Province, Iran. *Watershed Management Research*, 38(1): 78-95.

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11. Sarooneh, F., **Khaledi Darvishan, A.**, Moosavi, V. 2024. Investigating the Monthly Variability of Soil Erosion in the Kasilian Representative Watershed using RUSLE Model. *Watershed Management Research*, 37(3): 54-75.
12. Gholami, L., **Khaledi Darvishan, A.**, Derakhti, S., Kiani Harchegani, M. 2024. Effects Evaluation of land use change on soil erosion using the RUSLE model in the Chardavol watershed, Ilam. *Iranian Journal of Watershed Management Science and Engineering*, 18 (65): 1-14.
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- Hydrologic Characteristics. *Journal of Agricultural Science and Natural Resources*, 16(2): 253-260.
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  92. Sadeghi, S.H.R., **Khaledi Darvishan, A.**, Vafakhah, M. and Gholami, L., 2008. Study on Changes in Morphometric Characteristics of Bed Materials in Downstream Ward of Vaz River. *Journal of the Iranian Natural Resources*, 60(4): 1185-1189.
  93. Sadeghi, S.H.R., **Khaledi Darvishan, A.** and Vafakhah, M., 2007. Study on Channel Hydraulic Characteristics on Morphometric Variations of Bed Sediment. *Journal of Hydraulics*, spring 2007: 1-10.

#### AWARDS AND HONOURS

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|-----------------|--|
| <i>Aug 2018</i> | Award: Youth Outstanding Paper Award (Datum) 2018 - WASWAC - Moscow, Russia                          |
| <i>Aug 2014</i> | Award: Best PhD Thesis for the period 2013 selected by "Watershed Management Society of Iran (WMSI)" |
| <i>Feb 2013</i> | Award: First rank graduate of the PhD Degree, GPA 18.99 / 20 (Thesis: 19.79 / 20)                    |
| <i>Dec 2008</i> | Award: First Rank of the PhD Entrance Examination  |
| <i>Feb 2005</i> | Award: First rank graduate of the MSc Degree, GPA 18.42 / 20 (Thesis: 19.28 / 20)                    |
| <i>Jul 2003</i> | Award: First Rank of the MSc Entrance Examination  |
| <i>Jul 2003</i> | Award: First rank graduate of the BSc Degree, GPA 18.14 / 20   |

#### GRANTS AND FELLOWSHIPS

- Sep 2010 – Feb 2013* PhD Scholarship, Iran Ministry of Science, Research and Technology

#### RESEARCH PROJECT EXPERIENCE

2024. Co-PI. Preparing an Atlas of Ecological Health and Security of Iran's Major Watersheds, Iran National Science Foundation (INSF), Iran, 150 p.
2021. Co-PI. Assessment of Five-Year Rangeland Preservation Affecting Soil Sustainability Index and Soil Quality in the Dalahoo, Kermanshah Province, Iran, Soil Conservation and Watershed Management Research Institute, Iran, 74 p.
2021. Co-PI. Health Atlas of Pishkooch Watershed, Taft City, Yazd Province, Iran. Department of Natural Resources and Watershed Management of Yazd Province, 128 p.
- 2020. PI. Assessing the Environmental Diversity of Iran. Forests, Range and Watershed Management Organization of Iran. 283 p.**
2019. Co-PI. Report of Study and Synthesis of Strategic Plan for Integrated Management of Pilot Watersheds of Asiabrood and Bararood, Chalus City, Ministry of Jihad-e-Agriculture (FRWO), Department of Natural Resources and Watershed Management of Mazandaran Province–Nowshahr, 167 p.
2014. Co-PI. Study on Effects of Sand and Gravel Minings on Morphometric Characteristics of Suspended and Bed Loads. Iran National Science Foundation (INSF).

#### INVITED TALKS

- 2023 – Keynote Speaker: “Investigating the contribution of main land uses in soil erosion and sediment yield in the southern watersheds of the Caspian Sea”. Perm State Agro-Technological University, Perm, Russia, 14-17 November 2023.
- 2019 – Keynote Speaker: “Soil Erosion Researches in Khamsan Representative and Paired Watersheds (KHRPW) Approaches and Goals”. Perm State Agro-Technological University, Perm, Russia, 19-22 November 2019.
- 2020 – Keynote Speaker: “Global distribution of  $^{137}\text{Cs}$  and  $^{210}\text{Pb}_{\text{excess}}$  in the reference soil due to annual precipitation and latitudinal zoning”. University of Montenegro, Podgorica, Montenegro, 28-31 May 2020.

#### REVIEWER SUMMARY

International Journal of Environmental Research and Public Health	Journal of Mountain Science
Environmental Science and Pollution Research	Soil & Tillage Research
International Journal of Sediment Research	Journal of Hydrology
International journal of Digital Earth	Natural Hazards
Frontiers in Environmental Science	Remote Sensing
Land Degradation & Development	Sustainability
Science of the Total Environment	Catena
Journal of Soils and Sediments	Water

#### TEACHING EXPERIENCE

**Kurdistan University**

### Undergraduate courses

Soil and water conservation structures	B.Sc.	Previous
Watershed management	B.Sc.	Previous

### Tarbiat Modares University

### Graduate courses

Sediment sourcing	Ph.D.	Ongoing
Erosion and sediment models	M.Sc.	Ongoing
Applied sedimentology	M.Sc.	Ongoing
Advanced sedimentology	M.Sc.	Previous
River management	Ph.D.	Ongoing
Mass movements	M.Sc.	Ongoing
Advanced watershed management	Ph.D.	Ongoing
Evaluation of water and soil conservation projects	Ph.D.	Ongoing
Research methodology	M.Sc.	Ongoing
Water, soil and plants relationship	M.Sc.	Previous

### THESIS SUPERVISED

Thesis Title	Grade	Name of the Candidate	Defense Time
Effect of Spatial Scale on Watershed Sediment Budget	Ph.D.	Fatemeh Sedighi	2021
Temporal Variations of Sediment Source and Quality in Talar Watershed	Ph.D.	Maziar Mohammadi Khanghah	2021
Spatio-temporal variations of soil erosion and the relative contribution of sediment sources in the Iranian part of the Caspian Sea Basin	Ph.D.	Khadijeh Haji	2023
Relationship between Topographic Metrics and Sediment Budget Components	Ph.D.	Reza Zarei	2025
Analysis of the Erosional History using Soil Redistribution, Sediment Fingerprinting and Measurement	Ph.D.	Negin Ghaderi Dehkordi	2025
Variability of the Contribution of Suspended and Bed Sediment Sources during Storm Hydrograph	Ph.D.	Fatemeh Akbari	Ongoing
Land Use Contributions to Suspended and Bed Sediment Yields with Different Sizes in Kasilian Representative Watershed	Ph.D.	Vahid Beiranvandi	Ongoing
Modelling the contribution of land uses in sediment yield using deep learning methods	Ph.D.	Hamid Khodamoradi	Ongoing
Comparison of Surface Runoff and Soil Loss from Field Plots with Disturbed and Undisturbed Soils	M.Sc.	Vafa Homayounfar	2014

Analyzing the Effects of Rainfall Duration on Soil Erosion Process in Field Plots under Rainfall Simulation	M.Sc.	Azadeh Katebikord	2015
Analyzing the Effects of Soil Surface Rock Fragments on Soil Erosion Process in Field Plots under Rainfall Simulation	M.Sc.	Hero Mohammadamini	2015
Effect of Rainfall Intensity and Slope on Infiltration, Runoff, Soil and Nutrient Loss in Rainfed Lands (Case Study: Kalaleh Region, Golestan Province)	M.Sc.	Ramyar Aliramayee	2016
Analyzing the Monthly, Seasonal and Annual Sediment Delivery Ratio at Plot Scale	M.Sc.	Mohammad Derikvandi	2016
Accuracy assessment of the estimation of monthly, seasonal and annual soil erosion and sediment delivery ratio using RUSLE model in GIS Environment	M.Sc.	Mohsen Khorsand	2017
The Role of Surface Sealing on Runoff and Soil Loss in Subsequent Rainfalls	M.Sc.	Reza Zarei	2018
Effect of Straw Conservation Treatment on Runoff and Soil Loss Changes in Surface Roughness	M.Sc.	Mostafa Adami	2018
Spatial Changeability of Performance of Watershed Management Measures in Reducing Soil Erosion in Khamsan Representative Watershed using Cs- 137 Method	M.Sc.	Hamid khodamoradi	2019
Estimating Spatial Variations of Sediment Delivery Ratio in Khamsan Representative Watershed using WaTEM/SEDEM	M.Sc.	Jalal Faraji	2019
Evaluation of the Estimates of WaTEM/SEDEM and 137Cs in the Khamsan Representative Watershed using Sediment Measurements in Check Dam Reservoirs	M.Sc.	Elaheh Fathi Dareh Nijeh	2019
Evaluation of sediment delivery ratio estimating methods in Khamsan representative watershed	M.Sc.	Nasrin Azami	2019
Relationship Analysis between Sediment Delivery Ratio and Sediment Structural Connectivity Index in the Khamsan Representative Watershed	M.Sc.	Bitra Mahmoudi	2019
Spatial Distribution and Source Identification of Heavy Metals in Khamsan Representative Watershed, Iran	M.Sc.	Mohammad Amjadi	2020
Effect of Fire on Aggregate Stability and Splash Erosion Components under Laboratory Conditions	M.Sc.	Padidehossadat Sadeghi	2020
Tracing soil erosion and main sediment sources in a small watershed using n-alkanes	M.Sc.	Shahrbanoo Pourbakhshi	2022
Downstream Changes of the Contribution of Erosion Types in Bed Sediment Yield in Vaz River	M.Sc.	Donya Khatibi Rudbarsara	2022
Spatial Variations of Bed Sediment Quality Indices in Vaz River, Mazandaran Province	M.Sc.	Somayeh Pooram Nitlakh	2023
Contribution of Factors Affecting Annual Soil Erosion and Sediment Yield in Kasilian representative Watershed by Combining the Results of G2 Model and Geodetector Statistical Method	M.Sc.	Faezeh Kamari Yekdangi	2023

Spatiotemporal Analysis of Monthly Soil Erosion and Sediment Yield using RUSLE and TLSD Models in Kasilian Watershed	M.Sc.	Fatemeh Sarouneh	2023
Effect of Combined Application of Sawdust and Polyvinyl Acetate in Controlling Surface Runoff and Soil Loss in Small Experimental Plots under Rainfall Simulation	M.Sc.	Arasteh Payfeshordeh	2024
Daily Suspended Sediment Yield Modeling using Combined Taguchi-Artificial Intelligence Approach	M.Sc.	Fatemeh Abdolbaghi	<i>Ongoing</i>
Application of Dynamic Sediment Connectivity in Monthly Sediment Prediction using Artificial Intelligence and Ensemble Modeling Approach	M.Sc.	Fatemeh Zahra Enayati	<i>Ongoing</i>

**Abdulvahed Khaledi Darvishan**

**February 2026**