

# Curriculum Vita



## Generalities

*First name:* **Ebrahim**

*Last name:* **Omidvar**

*Birth of birth:* **11/Sep/1981**

*Place of birth:* **Marvdasht, Iran**

## Degrees

- 2004-2006, Bachelor in Natural resources engineering- Reduction and utilization of desert regions, Natural Resource Faculty, University of Yazd, Iran.
- 2006-2008, Master of Science in Watershed Management & Engineering, University of Mazandaran, Iran.
- 2009- 2014, Ph.D. in Watershed Management & Engineering, Natural Resource Faculty, University of Mazandaran , Iran.

*Msc. dissertation:* "Investigation of Check Dams Effects on Channels Geomorphological Characteristic (Case Study: Chehel cheshme Basin)".

*PhD thesis:* "Distributed simulation of runoff, soil erosion and sediment transport in Darabkola basin using numerical solution of Kinematic Wave Approximation"

## Contacts:

*Professional Email:*

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*Address:*

Faculty of Natural Resources and Earth Sciences, University of Kashan, Kashan, Iran.

## Awards:

- Excellent Student in B. S. students of "reduction and utilization of desert regions", University of Yazd, Iran, 2006.
- First-rank among M.Sc. students of "Watershed management engineering", University of Mazandaran, Iran, 2008.
- First-rank in PhD input examination, Mazandaran University, Iran, May 2008.

## Journal Papers

1. Soleimani K., E. Omidvar, A. Kelarestaghi, 2008. Investigation of Check dams Effects on Channels Geomorphological Characteristic (case study: Chehel Cheshme Basin). *International Journal of Biological Science*, 11 (17): 2083-2091.
2. Omidvar E., A. Kavian, 2011. Landslide volume estimation based on landslide area in a regional scale (Case study: Mazandaran province). *Iranian Journal of Range and Watershed Management*, 63 (4): 439-455.
3. Hoseini A., E. Omidvar, H. Naghavi, A. Parsakhoo, 2012. Estimation of Sediment Yield from Forest Roads Using SEDMODL. *Iranian Journal of Wood & Forest Sciences and Technology*, 19 (1): 23-41.
4. Mashari E. S., K. Solaimani, E. Omidvar, 2012. Landslide susceptibility mapping using multiple regression and GIS Tools in Tajan / North of Iran. *Environment and Natural Resources Research*, 2 (3): 43-51.
5. Mashari S., Nohegar A., E. Omidvar, 2012. Runoff simulation using geomorphological instantaneous unit hydrograph (GIUH) (case study: Bar basin-Khorasan Razavi). *Quarterly Journal of environmental erosion researches*, 2 (2): 115-126.
6. Omidvar E., A. Kavian, 2013. Investigation of possibility of landslide number and area estimation using determination area and volume frequency distribution (Case study: Mazandaran providence). *Iranian Journal of Range and Watershed Management*, 67 (2): 159-175.
7. Omidvar E., A. Kavian, K. Solaimani, 2014. Identification of the Best Infiltration Model in Order to Investigation of Spatial Variability of Infiltration Parameters (Case Study: Darabkola River Basin). *Quarterly Journal of environmental erosion researches*, 13: 1-16.
8. Mashari S., E. Omidvar, K. Soleimani. 2014. Investigation of the Efficiency of some Meteorological Drought Indices in Different Time Scales (Case Study: Tajan Basin, Iran). *ECOPERSIA*, 2 (1): 441-453.
9. Omidvar E., Kavian A., Solaimani K., Mashari S., 2015. Investigation of Applicability of Soil Map Units to Estimate the Spatial Variability of Soil Erodibility. *Desert Ecosystem Engineering Journal*, 4 (9): 95-107.
10. Fallah M., Kavian A., Omidvar E., 2016. Watershed prioritization in order to implement soil and water conservation practices. *Environmental Earth Sciences*, 75: 1248.
11. Fallah M., Kavian A., Omidvar E., 2016. Prioritization of Haraz sub-watersheds in order to Soil and Water Conservation Practices Based on Morphometric and Land Use Characteristics. *J. Water and Soil Sci. (Sci. & Technol. Agric. & Natur. Resour.)*, 20 (77): 85-98.

12. Mohammadi M., Fallah M., Kavian A., Gholami L., Omidvar E., 2017. The Application of RUSLE Model in Spatial Distribution Determination of Soil loss Hazard. *Ecohydrology*, 3 (4): 645-658.
13. Ghazavi R., Nadimi M., Omidvar E., Imani R., 2018. Future Climate Change Effect on Discharge Variation of Heroochay River Using SWAT and LARS-WG Models. *Hydrogeomorphology*, 15: 55-74.
14. Omidvar E., Rezaei M., Pirnia A., 2018. Performance Evaluation of Artificial Neural Network Models for Downscaling and Predicting of Climate Variables. *Journal of Watershed Management Research*, 18 (90): 80-90.
15. Ghazavi R., Omidvar E., Fadaei F., 2018. Effects of three super-absorbents application (A200, Perlites and Zeolite) on soil erosion and sediments of saturated soils. *Iranian Water Research Journal*, 12 (2): 121-129.
16. Omidvar E., Nazeri Z., 2018. Evaluation and Prediction of Meteorological Drought Conditions Using Linear Time-Series and Genetic Programming Models, *Earth System Sciences*, 128: 73.
17. Tien Bui D., Shahabi H., Omidvar E., Shirzadi A., Geertsema M. et al., 2019. Shallow Landslide Prediction Using a Novel Hybrid Functional Machine Learning Algorithm. *Remote Sensing*, 11: 931.
18. Tien Bui D., Shirzadi A., Shahabi H, Chapi K, Omidavr E., Pham B.T., Talebpour Asl D., et al., 2019. A Novel Ensemble Artificial Intelligence Approach for Gully Erosion Mapping in a Semi-Arid Watershed (Iran). *Sensors*, Vol. 19, pp. 1-34.
19. Pirnia A., Darabi H., Choubin B., Omidvar E., Onyutha C., Torabi Haghghi A., 2019. Trend analysis; Climatic variability; Anthropogenic activities; SWAT model; water balance; Annual and seasonal stream flow; Haraz River basin. *Journal of Hydro-environment Research*, 25: 12-24.
20. Nguyen P.T., Tuyen T.T., Shirzadi A., Pham B.T., Shahabi H., Omidvar E., Amini A., Entezami H., Prakash I., 2019. Development of a Novel Hybrid Intelligence Approach for Landslide Spatial Prediction. *Applied Sciences*, 9: 2824.
21. Barati Z., Omidvar E., Shirzadi A., 2019. Comparison of Ensemble Logistic Model Tree with Logistic Regression for Landslide Susceptibility Mapping. *Iranian Journal of Natural Resources*, 71(4), 869-884.
22. Pham B.T, Shirzadi A., Shahabi H., Omidvar E, Singh S.K., Sahana M., Talebpour Asl D., Bin Ahmad B., Quoc N.K and Lee S., 2019. Landslide Susceptibility Assessment by Novel Hybrid Machine Learning Algorithms. *Sustainability*, 11, 4386.

23. Omidvar E., Hajizadeh Z., Ghasemiyeh H., 2019. Sediment Yield, Runoff and Hydraulic Characteristics in Straw and Rock Fragment Covers. *Soil and Tillage Research*, 194, 104324.
24. Tien Bui, D.; Shirzadi, A.; Shahabi, H.; Geertsema, M.; Omidvar, E.; Clague, J.J.; Thai Pham, B.; Dou, J.; Talebpour Asl, D.; Bin Ahmad, B.; Lee, S. 2019. New Ensemble Models for Shallow Landslide Susceptibility Modeling in a Semi-Arid Watershed. *Forests*, 10, 743.
25. Pham B.T., Prakash I., Chen W., Ly H.B., Ho L.S., Omidvar E., Tran V.P., Bui D.T. 2019. A Novel Intelligence Approach of a Sequential Minimal Optimization-Based Support Vector Machine for Landslide Susceptibility Mapping, *Sustainability*, 11, 6323.
26. Shahabi H., Shirzadi A., Ghaderi K., Omidvar E., Al-Ansari N., Clague J.J., Geertsema M., et al, 2020. Flood Detection and Susceptibility Mapping Using Sentinel-1 Remote Sensing Data and a Machine Learning Approach: Hybrid Intelligence of Bagging Ensemble Based on K-Nearest Neighbor Classifier, *Remote Sensing*, 12 (2), 266.
27. Jeyhooni H., Ghazavi R., Omidvar E., Investigation of Zeolite Superabsorbent Effect on Soil Water Retention Curves in the Loamy and Sandy Textures. *J. Water and Soil Sci. (Sci. & Technol. Agric. & Natur. Resour.)* In Press.
28. Behnam Farid Gigloo, Omidvar E., Evaluation of EGEM Model in Predicting Ephemeral Gully Erosion, A Case Study: Ghoorichay Watershed, Ardabil Province. *Journal of Watershed Engineering and Management*, Accepted

## Conference Papers

1. Jalali M, Soleimani K., Mojadadi H., Omidvar E., Habibnejad M., 2008. Estimation of suspended load in Abeloo hydrometric station using of sediment rating curve and artificial neural network. , 4<sup>th</sup> Watershed management conference, Tehran. 1-9 pp.
2. Omidvar E, Soleimani K., Jalali M., Mojadadi H., 2008, Nomination of the suitable drought index for annual time series (Case Study: Tajan Basin), 1<sup>st</sup> International Climate Change and Dendrochronology, 1-9 pp.
3. Omidvar E, Pirnia A., 2008, Investigation of Tajan Basin's drought trend using of Man-Kendal and linear regration methods, 1<sup>st</sup> International Climate Change and Dendrochronology, 1-9 pp.
4. Omidvar E, Soleimani K., Jarare K., 2008, Investigation of hydrological changes in Tajan watershed, mazandaran province, 1<sup>st</sup>. International Conference on the Caspian Region Environmental Changes, Babolsar, Iran, 1-11pp.
5. Omidvar E, K. Soleimani, 2008. Investigation of meteorological drought distribution in Tajan watershed, Mazandaran province. Third Disaster Management Conference. Tehran.182 pp

6. Omidvar E, K. Soleimani, A. Kelarestaghi, 2009. Assesment of changes in longitude and lateral profile of channels due to construction of check dams (case study: Chehel Cheshme basin). 5th Watershed management conference, Gorgan, 1-12 pp.
7. Omidvar E, S. Mashari. K. Soleimani, 2009. Nomination of more suitable Hydrological Data Series for Some Precipitation Variables (Case study: Rig cheshme gauge- Mazanderan province). 5th Watershed management conference, Gorgan, 1-8 pp.
8. Pirnia A., Eshagh Teimoori M.A., Omidvar E., 2009 Investigation of general relationship changes of temperature and precipitation in Mazandaran province and it's comparison with climate changes in northern hemisphere and global scals, 4th Watershed management conference, Gorgan,
9. Hadian Amri M. A., Habibnejad Roshan M., Omodvar E., 2010, Probabilistic distribution 6th Watershed management conference, University of Tarbiat Modarres, Noor, Iran, 1-8 pp.
10. Koolaeian A., Omidvar E., Gholami, 2012, Investigation of the meteorological drought trend in Mazandaran province using three drought indices and Man-Kendall test. 3th International Climate Change and Dendrochronology, 1-13 pp.
11. Aghaei M., Dokhani S., Omidvar E., 2016. Effect of Physical Characteristics of Watershed on Area based Discharges, 1st International Conference on Water, Environment and Sustainable Develpment, Ardabil.
12. Fallah M., Kavian A., Omidvar E., 2015. Watershed Peritorisation Based on Morphometric Parameters in order to Soil and Water Conservation, 2nd National Conference on Climate Change and Engineering Sustainable Agriculture and Natural Resources, Tehran.
13. Fallah M., Kavian A., Omidvar E., 2015. Erosion Hazard Zonation Using RUSLE Model in Haraz Basin, 7th National Conference on Climate Change and Engineering Sustainable Agriculture and Natural Resources, Tehran.
14. Omidvar E., Kavian A., 2016. Investigating the Variations of Infiltration Parameters in Different Landuses, 11th National Conference on Watershed Management Sciences and Engineering of Iran, Yasoudj.
15. Shabani Z., Solaimani K., Omidvar E., 2016. Landslide Susceptibility Zonation Using AHP (Case Study: Kharestan Basin, Eqlid County). 11<sup>th</sup> National Conference on Watershed Management Sciences and Engineering of Iran, Yasoudj.
16. Hajjzadeh Z., Omidvar E., Ghasemieh H., 2017. Evaluation of the effect of rock fragment cover on runoff in experimental areas under simulation of rainfall, 12<sup>th</sup>

National Seminar on Watershed Management Sciences and Engineering of Iran, Watershed Management and Environmental Crisis, Malayer, Iran.

17. Omidvar E., 2017. Investigating the Impact of Aspect on Landslide Geometric Characteristics, 12<sup>th</sup> National Seminar on Watershed Management Sciences and Engineering of Iran, Watershed Management and Environmental Crisis, Malayer, Iran.
18. Omidvar E., 2019. Application of Fractal Dimension of Soil Particles as a Predictive Indicator of Erodibility, 14th National Conference on Watershed Management Sciences and Engineering of Iran, Urmia, Iran.
19. Sattarvand A., Omidvar E., Shirzadi A., 2019. Investigating the Effect of Soil Physical Properties on Rill Erosion, 14th National Conference on Watershed Management Sciences and Engineering of Iran, Urmia, Iran.
20. Karimi F., Ghazavi R., Omidvar E., 2019. Evaluation of the quality of drainage water from modified soils using gypsum, 14th National Conference on Watershed Management Sciences and Engineering of Iran, Urmia, Iran.

### **Research plans**

- Assessment of Different Statistical Distributions in Peak Discharge with Different Return Periods. University of Mazandaran
- Fractal Analysis of Soil Hydro-physical and Chemical Properties under land use effect
- Investigation the effects of different gypsum treatments on some physico chemical properties of treated saline and sodic soils

### **Research Experience**

- Climatologic and Meteorological Studies in Kamfirooz Basin, Fars Province.
- Climatologic and Meteorological Studies in Ghavamabad-Zarch Basin, Yazd Province.

### **Workshops**

- Lars-WG Model and its application in climate long term prediction. By: Dr. Babaei & Dr. Nokhandan. May 2010, Sari, Iran.
- Artificial Neural Network in Environmental science. 2011, Iran, Mazandaran, Sari.
- Hydroclimate and Hydrometeorological Modeling: Requirements and limitations and case studies for arid regions. By: Professor Soroosh Sorooshian & Dr. Thomas Pagano. 7th February 2012, Tehran, Iran.

### **Software Experiences**

- *General software:* M.S.-Office package
- *Geographic Information Systems:* ARC GIS, ARC View GIS, SAGA GIS

- *Surveying & mapping*: GS<sup>+</sup>, Surfer
- *Remote sensing*: ENVI, ERDAS IMAGINE
- *Hydrology*: HEC-HMS, SMADA, HYFA, DIP (Drought Indices Package)
- *Erosion and Sediment*: LISEM, WEPP, WATEM-SEDEM, EUROSEM
- *Statistics* : STATISTICA, SPSS, MINITAB, Easy Fit, XLSTAT

### Teaching Experiences

- **Applied Hydrology**. B. S. in Range and Watershed management. Natural resource faculty, Mazandaran University, Iran, 2011.
- **Climatology and Meteorology**. B. S. in Range and Watershed management. Natural resource faculty, Mazandaran University, Iran, 2011.
- **Soil and Water Conservation**, B. S. in Range and Watershed management. Natural resource faculty, Mazandaran University, Iran, 2011.
- **Erosion and Sediment Models**. M Sc. in Watershed management. Faculty of Natural Resources and Earth Sciences, University of Kashan, Iran. 2012.
- **Quaternary Formations**. M Sc. in Watershed management. Faculty of Natural Resources and Earth Sciences, University of Kashan, Iran, 2012-2018.
- **Landslide**, M Sc. in Watershed management. Faculty of Natural Resources and Earth Sciences, University of Kashan, Iran. 2018-2019.
- **Research Method**, M Sc. in Watershed management. Faculty of Natural Resources and Earth Sciences, University of Kashan, Iran. 2016-2018.
- **Snow and Avalanche**, M Sc. in Watershed management. Faculty of Natural Resources and Earth Sciences, University of Kashan, Iran. 2015-2018.
- **Sediment Yield of Geological Formations**, PhD. in Watershed Management Engineering and Sciences, Faculty of Natural Resources and Earth Sciences, University of Kashan, Iran. 2017-2019.
- **Advance Geomorphology**, PhD. in Watershed Management Engineering and Sciences, Faculty of Natural Resources and Earth Sciences, University of Kashan, Iran. 2016-2019.

- **Quantitative Geomorphology**, PhD. in Watershed Management Engineering and Sciences, Faculty of Natural Resources and Earth Sciences, University of Kashan, Iran. 2018-2019.