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Educations:

PhD: Water Resources Engineering, (GPA: 19.65/20), University of Tabriz, March 2013.

The first order in the admission exam which carried out by University of Tabriz and the first rank student among PhD students of Faculty of Agriculture of University of Tabriz.

Dissertation Title: Application of Copula Functions for Droughts Droughts Analysis in Northwest of Iran

MSc, Hydraulic Structures, Dept. Water Engineering, Shahid Bahonar University of Kerman, Kerman, Iran, August 2007, (GPA: 18.40/20), the first rank student.

Thesis Title: Simulation and Water Resource Management of Sirjan Plain Aquifer

BSc, Irrigation Engineering, Dept. Water Engineering, Shahid Bahonar University of Kerman, Kerman, Iran, July 2004, (GPA: 17.03/20), the first rank student.

BSc Project Title: Flood Frequency Analysis of Gamasiab Watershed, Kermanshah, Iran

Visiting Scientist, Department of Civil & Environmental Engineering, University of Connecticut, Storrs, CT, USA (March 11 to September 5 2012).

Visiting Researcher, Water, Energy and Environmental Engineering Research Unit, Faculty of Technology, University of Oulu, Finland (July 10 to November 28, 2023)

Awards, Honorary Degrees, Medals and Positions:

- First ranked among all BSc students of Irrigation Engineering Department, Shahid Bahonar University of Kerman (2004).
- First ranked among all Masters Students of Hydraulic Structures Department, Shahid Bahonar University of Kerman (2007).
- The first order in the admission exam which carried out by University of Tabriz (2008).
- Distinguished Ph.D. student among all PhD students of Faculty of Agriculture, University of Tabriz (2013).
- The Best Researcher Award from the Governor of Chaharmahal and Bakhtiari Province (2017)
- The Best Researcher Award from the Governor of Chaharmahal and Bakhtiari Province (2020)
- The Best Researcher Award from the Governor of Chaharmahal and Bakhtiari Province (2024)
- The Best Researcher of Faculty of Agriculture, Shahrekord University (2023)
- The Best Researcher of Faculty of Agriculture, Shahrekord University (2024)

Work Experiences and Official Positions:

- Associate Professor of Shahrekord University since 26 May 2018 (to be continued).
- Assistant Professor of Shahrekord University since 7 September 2013 to – 25 May 2018.
- Head of Water Resources Research Center (WRRC) since 2018 to 2023.
- Vice-Chancellor for Research of Water Resources Research Center (WRRC) (2014 to 2018).
- General Chair of the 17th Iranian Hydraulic Conference which held in Shahrekord University 4-6 September 2018.
- Scientific Chair of 2nd National Iranian Conference on Hydrology which held in Shahrekord University 11- 12 July 2017.
- Executive Manager of First National Conference on Development of Chaharmahal and Bakhtiari Province was held in Shahrekord University 19th of February 2015.
- Executive Manager of Second National Conference on Water Crisis was held in Shahrekord University 15- 16 of September 2014.
- Secretary of the Iranian Association of Hydrology from 2016 (to be continued).
- Member of founding board of the Iranian Association of Hydrology
- Designing Engineer for various Iranian consultant companies (e.g. Azarkavab; Teyfsaz Sabz Consult Co.) from 2009 (to be continued).

Publications

Books

1- Singh, VP. (Ed.), Jhajharia, D. (Ed**.), Mirabbasi, R.** (Ed.), Kumar, R. (Ed.). (2023). Integrated Drought Management, Volume 1: Assessment and Spatial Analyses in Changing Climate. CRC Press, 536p. ISBN: 9781032231709

2- Singh, VP. (Ed.), Jhajharia, D. (Ed.), **Mirabbasi, R.** (Ed.), Kumar, R. (Ed.). (2023). Integrated Drought Management, Volume 2: Forecasting, Monitoring, and Managing Risk. CRC Press, 664p. ISBN: 9781032231686.

3- Kumar, R. (Ed.), Singh, VP. (Ed.), Jhajharia, D. (Ed.), **Mirabbasi, R.** (Ed.). (2020). Agricultural Impacts of Climate Change [Volume 1]. Boca Raton: CRC Press, 304p. eBook ISBN: 9780429326349. https://doi.org/10.1201/9780429326349

4- Kumar, R. (Ed.), Singh, VP. (Ed.), Jhajharia, D. (Ed.), **Mirabbasi, R.** (Ed.). (2020). Applied Agricultural Practices for Mitigating Climate Change [Volume 2]. Boca Raton: CRC Press, 296p. eBook ISBN: 9780429326400. https://doi.org/10.1201/9780429326400

5- Mohammad Nazeri Tahroudi; Yousef Ramezani, Carlo De Michele, **Rasoul Mirabbasi Najafabadi** (2023). Multivariate Analysis of Hydrological Events Using Copula Functions. Publisher: University of Birjand. ISBN: 978-622-6582-58-2 (in Persian)

5- Mohammad Nazeri Tahroudi; Yousef Ramezani, **Rasoul Mirabbasi Najafabadi**, Keivan Khalili (2022). Statistical Analysis of Time Series in Water Resources Using R software. Publisher: University of Birjand. ISBN: 978-622-6582-44-5 (in Persian)

6- Eslamian, S.S., **Mirabbasi, R.** and Ostad-Ali-Askari, K. 2017, Advance Engineering Statistics (Simulation and Modeling of Uncertainty and Sensitivity Analysis). Publisher: Kankash Publication ISBN: 978-600-136-359-7 (in Persian)

Book chapters

1- Mohammad Nazeri Tahroudi, Farshad Ahmadi, Yousef Ramezani, Mohsen Pourreza-Bilondi, **Rasoul Mirabbasi**, (2023). Investigating the relationship between the temporal distribution of precipitation and flow shortness volume over Lake Urmia Basin, Iran. In: Singh, VP. (Ed.), Jhajharia, D. (Ed.), Mirabbasi, R. (Ed.), Kumar, R. (Ed.). (2023). Integrated Drought Management, Volume 1: Assessment and Spatial Analyses in Changing Climate. (Chapter 7). CRC Press, 536p. ISBN: 9781032231709

2- Mohammad Nazeri Tahroudi, Farshad Ahmadi, Yousef Ramezani, **Rasoul Mirabbasi**, (2023). Analysis of drought using a modified version of the Standardized Precipitation Evapotranspiration Index. In: Singh, VP. (Ed.), Jhajharia, D. (Ed.), Mirabbasi, R. (Ed.), Kumar, R. (Ed.). (2023). Integrated Drought Management, Volume 1: Assessment and Spatial Analyses in Changing Climate. (Chapter 11). CRC Press, 536p. ISBN: 9781032231709.

3- Farshad Ahmadi, Mohammad Nazeri Tahroudi, Yousef Ramezani, **Rasoul Mirabbasi**, (2023). Analysis of meteorological drought using Joint Deficit Index based on downscaled precipitation data. In: Singh, VP. (Ed.), Jhajharia, D. (Ed.), Mirabbasi, R. (Ed.), Kumar, R. (Ed.). (2023). Integrated Drought Management, Volume 1: Assessment and Spatial Analyses in Changing Climate. (Chapter 13). CRC Press, 536p. ISBN: 9781032231709.

4- Tommaso Caloiero and **Rasoul Mirabbasi**, (2023). A copula-based joint deficit index for the analysis of droughts in New Zealand. In: Singh, VP. (Ed.), Jhajharia, D. (Ed.), Mirabbasi, R. (Ed.), Kumar, R. (Ed.). (2023). Integrated Drought Management, Volume 2: Forecasting, Monitoring, and Managing Risk. (Chapter 13). CRC Press, 664p. ISBN: 9781032231686.

5- P. Kanthavel, D. Jhajharia, G. S. Yurembam, **R. Mirabbasi**, (2023). Comparative copula-based multivariate meteorological drought analysis: a case study from Northeast India. In: Singh, VP. (Ed.), Jhajharia, D. (Ed.), Mirabbasi, R. (Ed.), Kumar, R. (Ed.). (2023). Integrated Drought Management, Volume 2: Forecasting, Monitoring, and Managing Risk. (Chapter 14). CRC Press, 664p. ISBN: 9781032231686.

6- **Rasoul Mirabbasi** and Deepak Jhajharia, (2023). Multivariate Assessment of Drought Using Composite Drought Index. In: Singh, VP. (Ed.), Jhajharia, D. (Ed.), Mirabbasi, R. (Ed.), Kumar, R. (Ed.). (2023). Integrated Drought Management, Volume 2: Forecasting, Monitoring, and Managing Risk. (Chapter 15). CRC Press, 664p. ISBN: 9781032231686.

7- Farshad Ahmadi, Mohammad Nazeri Tahoudi, **Rasoul Mirabbasi**, Keivan Khalili, and Deepak Jhajharia, (2020). Spatial Distribution of a Daily, Monthly and Annual Precipitation Concentration Index. In: Kumar, R. (Ed.), Singh, VP. (Ed.), Jhajharia, D. (Ed.), Mirabbasi, R. (Ed.). Agricultural Impacts of Climate Change (Chapter 1). Boca Raton: CRC Press, eBook ISBN: 9780429326349. https://doi.org/10.1201/9780429326349

8- **Rasoul Mirabbasi** (2015). Application of Artificial Intelligence Methods for Groundwater Quality Prediction. In: Ata Allah Nadiri (Ed.). Application of Artificial Intelligence Methods

in Geosciences and Hydrology (Chapter 4). Foster City, CA. USA, OMICS Group eBooks. ISBN: 978-1-63278-061-4-04. DOI: http://dx.doi.org/10.4172/978-1-63278-061-4-062.

International Journals

73- **Rasoul Mirabbasi**, Mohammad Nazeri Tahroudi, Alireza Sharifi, Ali Torabi Haghighi. (2025). Investigating the dependence structure of temperature and precipitation concentration with evapotranspiration in Finland. Water Resources Management. https://doi.org/10.1007/s11269-025-04320-5 (IF=4.7). Q1 (Accepted).

72- Amin Gharehbaghi, Redvan Ghasemlounia, Farshad Ahmadi, **Rasoul Mirabbasi,** Ali Torabi Haghighi. (2025). A Comparative Study on Novel Hybrid Approaches Based on CEEMDAN, Random Forest, Deep Learning Methods for Predicting Daily Wind Speed. Earth Systems and Environment, https://doi.org/10.1007/s41748-025-00714-y (IF=4.7). Q1

71- Amin Gharehbaghi, Redvan Ghasemlounia, Farshad Ahmadi, **Rasoul Mirabbasi,** Ali Torabi Haghighi (2025). Developing a novel hybrid model based on GRU deep neural network and Whale optimization algorithm for precise forecasting of river's streamflow. Scientific Reports, 15, 19436. https://doi.org/10.1038/s41598-025-03185-3 (IF=3.8). Q1

70- Sina Sadeghfam; Hadi Farmani; **Rasoul Mirabbasi** (2025). Developing reservoir drought index and conducting copula-based frequency analysis for Lake Urmia basin in Iran. Journal of Hydrology: Regional Studies, 60, 102476 https://doi.org/10.1016/j.ejrh.2025.102476 (IF=4.7). Q1

69- Mohammad Khaledi-Alamdari; Ahmad Fakheri-Fard, **Rasoul Mirabbasi**; Ana Russo, Abolfazl Majnooni-Heris (2025). Conditional drought risk of rainfed wheat yield through copula analysis: comparison between two multiscalar drought indicators in the Tabriz region, Iran. Stochastic Environmental Research and Risk Assessment. 39: 2843-2857. https://doi.org/10.1007/s00477-025-02995-1 (IF=3.9). Q1

68- Sabah Parvaze, Rohitashw Kumar, **Rasoul Mirabbasi**, Saqib Parvaze Allaie. (2025). Drought severity index analysis using the copula-based joint deficit index in greater Himalayas of India. Theoretical and Applied Climatology. 156, 217. https://doi.org/10.1007/s00704-025-05449-4. (IF=2.8). Q2

67- Roghayeh Ahmadifar, Hamid R. Safavi, **Rasoul Mirabbasi**, Mohammad H. Golmohammadi (2025). A hybrid vine copula-fuzzy model for groundwater level simulation under uncertainty. Environmental Monitoring and Assessment. 197: 403, https://doi.org/10.1007/s10661-025-13856-3. (IF=3.0). Q2

66- Asiyeh Ebrahimzadeh, Elham Hashemizadeh, **Rasoul Mirabbasi**. (2025). A numerical solution of the mathematical models for water pollution by shifted Jacobi polynomials. TWMS Journal of Applied and Engineering Mathematics. 15(2): 298-308. (IF=0.4). Q4

65- Mohammad Nazeri Tahroudi; **Rasoul Mirabbasi**, (2025). Evaluating the efficiency and accuracy of the copula-based rainfall-runoff model. Earth Science Informatics. 18: 122, https://doi.org/10.1007/s12145-024-01594-y (IF=3.0). Q2

64- **Rasoul Mirabbasi**, Björn Klöve, Ali Torabi Haghighi, (2024). Multivariate Frequency Analysis of Drought Characteristics in Finland Using Vine Copulas. International Journal of Climatology. 44(16): 5986-6013. https://doi.org/10.1002/joc.8679. (IF=3.5). Q2

63- Asiyeh Ebrahimzadeh, Raheleh Khanduzi, **Rasoul Mirabbasi**, Elham Hashemizadeh. (2024). Optimal control of water pollutant transmission by utilizing a combined Jacobi collocation

method and mountain gazelle algorithm. Iranian Journal of Numerical Analysis and Optimization. 15(1): 163-196. https://doi.org/10.22067/ijnao.2024.89204.1491. (IF=0.2) Q4

62- Marjan Moazamnia, Sina Sadeghfam, Naser Jabraili-Andariyan, Ata Allah Nadiri, **Rasoul Mirabbasi**, Roohollah Noori. (2024). Probabilistic human health risk assessment for arsenic, nickel and lead exposures based on two-dimensional Monte Carlo simulation. Groundwater for Sustainable Development. 27: 101312, https://doi.org/10.1016/j.gsd.2024.101312 (IF=5.6). Q1

61- Farshad Ahmadi, **Rasoul Mirabbasi**, Rohitashw Kumar, Sarita Gajbhiye, (2024). Prediction of precipitation using wavelet-based hybrid models considering the periodicity. Neural Computing and Applications, 36, 16345–16364. DOI: 10.1007/s00521-024-10006-7 (IF=6.0). Q1

60- Nazeri Tahroudi, M., **Mirabbasi, R.,** Nasrolahi, A., (2024). Investigating the possibilities of temperature concentration distribution in Zayanderood based on climate change. Dynamics of Atmospheres and Oceans 106, 101454. Doi: 10.1016/j.dynatmoce.2024.101454 (IF=1.7). Q2

59- Nazeri Tahroudi, M., Ramezani, Y., De Michele, C., **Mirabbasi**, R., (2024). Wind speed monitoring using entropy theory and a copula-based approach. Probabilistic Engineering Mechanics. 75, 103582. doi: 10.1016/j.probengmech.2024.103582. (IF=2.6). Q1

58- **Mirabbasi**, R., Nazeri Tahroudi, M., Sharifi, A., Torabi Haghighi, A., (2024). A Probabilistic Approach for Estimating Spring Discharge Facing Data Scarcity. Applied Water Science. 14: 12. doi:10.1007/s13201-023-02071-5 (IF=5.5). Q1

57- Vahidi, M.J., **Mirabbasi, R.,** Khashei-Siuki, A., Nazeri Tahroudi, M., Jafari, A.M., (2023) Modeling of daily suspended sediment load by trivariate probabilistic model (case study, Allah River Basin, Iran). Journal of Soils and Sediments. DOI: 10.1007/s11368-023-03629-1 (IF=3.6). Q1

56- Nazeri Tahroudi, M., **Mirabbasi, R.** (2023). Development of decomposition-based model using Copula-GARCH approach to simulate instantaneous peak discharge. Applied Water Science, 13: 182. DOI: 10.1007/s13201-023-01982-7. (IF=5.5). Q1

55- Nazeri Tahroudi, M., Ahmadi, F., **Mirabbasi, R.,** (2023). Performance comparison of IHACRES, random forest and copula-based models in rainfall-runoff simulation. Applied Water Science. 13, 134 DOI: 10.1007/s13201-023-01929-y (IF=5.411). Q1

54- Nazeri Tahroudi, M., **Mirabbasi. R.,** (2023). Frequency decomposition associated with machine learning algorithms and copula modeling for river flow prediction. Stochastic Environmental Research and Risk Assessment. DOI: 10.1007/s00477-023-02425-0 (IF=3.821). Q1

53- Birjandi, V., Tabatabaei, S.H., Mastouri, R., Mazaheri, H., **Mirabbasi, R.,** (2023). Multivariate spatial analysis of groundwater quality using copulas. Acta Geophysica. DOI: 10.1007/s11600-023-01073-w (IF=2.293). Q2

52- Moradzadeh Rahmatabadi, S., Irandoust, M., **Mirabbasi, R.,** (2023). Multivariate analysis of rainfall–runoff characteristics using copulas. Journal of Earth System Science, 132, 93 DOI: 10.1007/s12040-023-02105-1. (IF=1.912). Q2

51- Fatemeh Sohrabi Geshnigani, Mohammad Reza Golabi, **Rasoul Mirabbasi**, Mohammad Nazeri Tahroudi (2023). Daily solar radiation estimation in Belleville station, Illinois, using ensemble artificial intelligence approaches. Engineering Applications of Artificial Intelligence, 120, 105839. doi.org/10.1016/j.engappai.2023.105839 (IF=7.802). Q1

50- Ramezani, Y., Nazeri Tahroudi, M., De Michele, C., **Mirabbasi, R.** (2023). Application of copula-based and ARCH-based models in storm prediction. Theoretical and Applied Climatology, doi.org/10.1007/s00704-022-04333-9 (IF=3.409). Q2

49- Sasan Amini; Rafat Zare Bidaki; **Rasoul Mirabbasi**; Maryam Shafaei, Multivariate analysis of flood characteristics in Armand Watershed, Iran using vine copulas. Arabian Journal of Geosciences, doi.org/10.1007/s12517-022-11102-5. (IF= 1.827). Q2

48- Neshat Jahannemaei; Payam Khosravinia; Hadi Sanikhani; **Rasoul Mirabbasi**, Toward analyzing meteorological droughts in the west of Iran: a multivariate approach based on vine copulas. Natural Hazards, doi.org/10.1007/s11069-022-05747-4 (IF= 3.158). Q1

47- Mohammad Nazeri Tahroudi; Yousef Ramezani, Carlo De Michele, **Rasoul Mirabbasi**, (2022). Application of Copula Functions for Bivariate Analysis of Rainfall Deficiency and River Flow Deficiency in Siminehrood River Basin, Iran. Journal of Hydrologic Engineering, doi.org/10.1061/(ASCE)HE.1943-5584.0002207 (IF= 2.439). Q2

46- Mohammad Nazeri Tahroudi; Yousef Ramezani, Carlo De Michele, **Rasoul Mirabbasi**, (2022). Application of Copula-Based Approach as a New Data Driven Model for Downscaling the Mean Daily Temperature. International Journal of Climatology doi.org/10.1002/joc.7752 (IF= 4.069). Q1

45- Farshad Ahmadi; Mohammad Nazeri Tahroudi; **Rasoul Mirabbasi**; Rohitashw Kumar, (2022). Spatiotemporal analysis of precipitation and temperature concentration using PCI and TCI: a case study of Khuzestan Province, Iran. Theoretical and Applied Climatology, 149: 743-760. doi.org/10.1007/s00704-022-04077-6 (IF=3.179). Q2

44- Sina Sadeghfam, Rasa Mirahmadi, Rahman Khatibi, **Rasoul Mirabbasi**, Ata Allah Nadiri, (2022). Investigating meteorological/groundwater droughts by copula to study anthropogenic impacts. Nature Scientific Reports https://doi.org/10.1038/s41598-022-11768-7 (IF= 4.996). Q1

43- Mohammad Nazeri Tahroudi; **Rasoul Mirabbasi**; Yousef Ramezani; Farshad Ahmadi, (2022). Probabilistic Assessment of Monthly River Discharge using Copula and OSVR Approaches. Water Resources Management. https://doi.org/10.1007/s11269-022-03125-0 (IF=3.517). Q1

42- Sasan Amini, Rafat Zare Bidaki, **Rasoul Mirabbasi**, Maryam Shafaei, (2022). Flood risk analysis based on nested copula structure in Armand Basin, Iran. Acta Geophysica. doi.org/10.1007/s11600-022-00766-y. (IF=2.058). Q2

41- Farshad Ahmadi, **Rasoul Mirabbasi**, Sarita Gajbhiye, Rohitashw Kumar, (2022). Investigating the variation pattern and erosivity power of precipitation in the Sindh river basin of India during last 120 years. Stochastic Environmental Research and Risk Assessment. doi.org/10.1007/s00477-022-02193-3. (IF=3.379). Q1

40- Mohammad Nazeri Tahroudi, Yousef Ramezani, Carlo De Michele, **Rasoul Mirabbasi**, (2022). Trivariate joint frequency analysis of water resources deficiency signatures using vine copulas. Applied Water Science, 12:67 doi.org/10.1007/s13201-022-01589-4 (IF=3.874). Q1

39- Mohammad Nazeri Tahroudi, Yousef Ramezani, Carlo De Michele, **Rasoul Mirabbasi**, (2022). Bivariate Simulation of Potential Evapotranspiration Using Copula‐GARCH Model. Water Resources Management. doi: 10.1007/s11269-022-03065-9. (IF=3.517). Q1

38- Mohammad Nazeri Tahroudi; Yousef Ramezani, Carlo De Michele, **Rasoul Mirabbasi**, (2022). Multivariate analysis of rainfall and its deficiency signatures using vine copulas. International Journal of Climatology, 42(4): 2005-2018. Doi: 10.1002/joc.7349 (IF=4.069). Q1

37- Alireza Sharifi, **Rasoul Mirabbasi**, Mohammad Ali Nasr-Esfahani, Ali Torabi Haghighi, Rohollah Fattahi. (2021). Quantify the impacts of anthropogenic changes and climate variability on runoff changes in central plateau of Iran using nine methods. Journal of Hydrology, doi: 10.1016/j.jhydrol.2021.127045 (IF=5.722). Q1

36- Mohammad Nazeri Tahroudi; Yousef Ramezani, Carlo De Michele, **Rasoul Mirabbasi**, (2021). Flood routing via a copula-based approach. Hydrology Research, 52(6): 1294-1308. doi: 10.2166/nh.2021.008 (IF=2.419). Q1

35- Deepak Jhajharia, Shivam Gupta, **Rasoul Mirabbasi**, Rohitashw Kumar and Ghanshyam T. Patle. (2021). Pan evaporative changes in transboundary Godavari River basin, India. Theoretical and Applied Climatology, 145: 1503- 1520. doi: 10.1007/s00704-021-03707-9 (IF=3.179). Q2

34- Alireza Sharifi; Ali Mirchi; Roghayeh Pirmoradian; **Rasoul Mirabbasi**; Mohammad Javad Tourian; Ali Torabi Haghighi; Kaveh Madani, (2021). Battling Water Limits to Growth: Lessons from Water Trends in the Central Plateau of Iran. Environmental Management, 68: 53-64. doi: 10.1007/s00267-021-01447-0 (IF=3.266). Q1.

33- Fatemeh Sohrabi Geshnigani, **Rasoul Mirabbasi**, Mohammad Reza Golabi, (2021). Evaluation of FAO's WaPOR product in estimating the reference evapotranspiration for stream flow modelling. Theoretical and Applied Climatology. 144: 191-201. Doi: 10.1007/s00704-021-03534-y (IF=3.179). Q2

32- **Rasoul Mirabbasi,** Farshad Ahmadi, Deepak Jhajharia, (2020). Comparison of parametric and non-parametric methods for trend identification in groundwater levels in Sirjan plain aquifer, Iran. Hydrology Research. 51(6): 1455- 1477. doi: 10.2166/nh.2020.041 (IF=2.419). Q1

31- Mohammad Nazeri Tahroudi; Yousef Ramezani, Carlo De Michele, **Rasoul Mirabbasi**, (2020). A New Method for Joint Frequency Analysis of Modified Precipitation Anomaly Percentage and Streamflow Drought Index Based on the Conditional Density of Copula Functions. Water Resources Management. 34, 4217–4231. DOI: 10.1007/s11269-020-02666-6 (IF=3.517). Q1

30- Mohammad Taghi Sattari; **Rasoul Mirabbasi**; Salar Jarhan; Fatemeh Shaker Sureh; Sajjad Ahmad, (2020). Trend and abrupt change analysis in water quality of Urmia Lake in comparison with changes in lake water level. Environmental Monitoring and Assessment. 192, 623, DOI: 10.1007/s10661-020-08577-8 (IF=1.903). Q2

29- Mohammad Nazeri Tahroudi; Yousef Ramezani, Carlo De Michele, **Rasoul Mirabbasi**, (2020). Analyzing the Conditional Behavior of Rainfall Deficiency and Groundwater Level Deficiency Signatures by Using Copula Functions. Hydrology Research. 51 (6): 1332–1348. DOI: 10.2166/nh.2020.036. (IF=2.012). Q1

28- Sattari, M.T., **Mirabbasi, R.**, Dolati, H., Shaker Sureh, F., Ahmad, S., (2020). Investigating the Effect of Managing Scenarios of Flow Reduction and Increasing Irrigation Water Demand on Water Resources Allocation Using System Dynamics (Case Study: Zonouz Dam, Iran). Journal of Tekirdag Agricultural Faculty, 17(3): 406- 421. DOI: 10.33462/jotaf.703167 (IF=0.2). Q4

27- Sarita Gajbhiye Meshram, Chandrashekhar Meshram, Mohammad Ali Ghorbani, Hossein Tabari, **Rasoul Mirabbasi**, Balram Ambade, 2020. Long Term Temperature Trend Analysis Associated with Agriculture Crops, Theoretical and Applied Climatology (Accepted). (IF=2.72). Q2

26- Sajjad Abdollahi; Ali-Mohammad Akhoond-Ali; **Rasoul Mirabbasi**; Jan Franklin Adamowski, (2019). Probabilistic event based rainfall-runoff modeling using copula functions. Water Resources Management, 33(11): 3799- 3814. DOI: 10.1007/s11269-019-02339-z. (IF=2.987). Q1

25- Farshad Ahmadi, Feridon Radmanesh, Mohamad Reza Sharifi, **Rasoul Mirabbasi**, (2018). "Bivariate Frequency Analysis of Low Flow Using Copula Functions (Case study: Dez River Basin, Iran)" Environmental Earth Sciences, 77: 643 DOI: 10.1007/s12665-018-7819-2. (IF=1.435). Q2

24- Hadi Sanikhani, Ozgur Kisi, **Rasoul Mirabbasi**, Sarita Gajbhiye Meshram. (2018). Trend analysis of rainfall pattern over the Central India during 1901- 2010. Arabian Journal of Geosciences, 11,437 DOI: 10.1007/s12517-018-3800-3 (IF=0.86).

23- Hadi Sanikhani, Ravinesh C. Deo, Pijush Samui, Ozgur Kisi, Cihan Mert, **Rasoul Mirabbasi**, Siavash Gavili, Zaher Mundher Yaseen, (2018). Survey of different data-intelligent modeling strategies for forecasting air temperature using geographic information as model predictors. Computers and Electronics in Agriculture, 152: 242- 260. DOI: 10.1016/j.compag.2018.07.008. (IF=2.427)

22- Mohammad Nazeri Tahroudi, Keivan Khalili, Farshad Ahmadi, **Rasoul Mirabbasi**, Deepak Jhajharia, (2018). Development and Application of a New Index for Analyzing Temperature Concentration for Iran's Climate. International Journal of Environmental Science and Technology. DOI: 10.1007/s13762-018-1739-2 (IF=2.037)

21- **Rasoul Mirabbasi**, Ozgur Kisi, Hadi Sanikhani, Sarita Gajbhiye Meshram, (2018). Monthly long-term rainfall estimation in Central India using M5Tree, MARS, LSSVR, ANN and GEP models. Neural Computing and Applications. DOI: 10.1007/s00521-018-3519-9 (IF=4.213).

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Editorial board in journal

- Members of the editorial board of SCIREA Journal of Geosciences

- Members of the editorial board of Journal of Water Resources and Ocean Science

- Members of the editorial board of The Open Statistics & Probability Journal

- Members of the editorial board of Probe- Environmental Science and Technology

-Associate Editor of Iranian Water Research Journal (2016- Continue)

- English Editor of Iran Water Research Journal. (2014- Continue)

- Members of the editorial board of Journal of Hydrogeomorphology (2020- Continue)

Journal reviewer for

1- IEEE Access
2- Water Resources Management
2- Natural Hazards
3- Atmospheric Research
4- Stochastic Environmental Research and Risk Assessment
5- Journal of Hydrologic Engineering (ASCE)
6- Theoretical and Applied Climatology
7- International Journal of Agricultural and Biological Engineering
8- Journal of Petroleum and Gas Exploration Research
9- International Research Journal of Geology and Mining
10- Peak Journal of Physical and Environmental Science Research
11- Journal of Scientific Research and Reports
12- Comprehensive Research Journal of Agricultural Science
13- International Journal of Climate Change Strategies and Management
14- Journal of Hazardous, Toxic, and Radioactive Waste
15- Journal of Hydrology
16- Hydrology and Earth System Sciences (HESS)
17- Journal of Engineering and Technological Sciences
18- Arabian Journal of Geosciences
19- International Journal of Climatology
20- Journal of Flood Risk Management
21- International Journal of Hydrology Science and Technology
22- Applied Engineering in Agriculture (American Society of Agricultural and Biological Engineers)
23- Journal of Applied Meteorology and Climatology
24- Journal of Probability and Statistics
25- SN Applied Sciences
26- Journal of Applied Water Engineering and Research
27- Earth and Space Science
28- Journal of Agricultural Water Management
29- Scientific Reports (Nature)
30- Scientific Data (Nature)

31- Irrigation and Drainage
32- Atmosphere
33- Atmospheric Science Letters
34- Agricultural Water Management
35- Applied Water Science
36- SoftwareX
37- Journal of Hydrology: Regional Studies
38- Water and Environment Journal
39- Acta Geophysica
40- Iran Water Research Journal
41- Water and Soil Sciences Journal, University of Tabriz
42- Soil Management Journal
43- Water Resources Engineering, Marvdasht Islamic Azad University
44- Irrigation and Water Engineering
45- Physical Geography Research Quarterly
46- Journal of Water and Soil
47- International Bulletin of Water Resources and Development (IBWRD)
48- Journal of Geosciences
49- Journal of Dam and Hydroelectric Power plant

Scientific Committee Member of Conference

- The first national Conference on Packaged Water
- The 8th National Congress on Civil Engineering
- The 5th National Conference on Watershed and Soil and Water Resources Management
- The 6th National Conference on Watershed and Soil and Water Resources Management
- The 2nd National Conference on Water Crisis
- The 13th Iranian Hydraulic Conference
- The 6th National Conference on Water Resources Management
- The 8th National Conference on New Findings of Research in Agriculture and Natural Resources
- First National Conference on Development of Chaharmahal and Bakhtiari Province
- The 2nd National Iranian Conference on Hydrology
- The 17th Iranian Hydraulic Conference
- The 2nd International Congress on Engineering and Architecture (ENAR) Marmaris / Turkey, 22 - 24 April 2019) (https://www.enarcongress.com/Conference/Committee)
- The 2nd Conference of the Arabian Journal of Geosciences (CAJG) Sousse/Tunisia, 25- 28 November 2019) .(https://www.cajg.org/index.php?p=committees)
- The 3rd National Iranian Conference on Hydrology

Membership in Society and Association:

- Founding member of the Iranian Hydrological Association
- Board of Directors' member of the Iranian Hydrological Association
- American Society of Civil Engineers (ASCE)
- American Geophysical Union (AGU)
- American Meteorological Society (AMS)
- Iranian Association of Hydrology (IRAH)
-Iranian Water Resources Association (IR-WRA)
- Iranian National Committee on Irrigation and Drainage (IRNCID)
- Iranian Society of Irrigation and Water Engineering (ISIWE)
- National Elite Foundation of Iran (http://www.bmn.ir)
- Gifted and Talented Student center of Tabriz University, Tabriz, Iran
- Gifted and Talented Student center of Shahid Bahonar University of Kerman, Kerman, Iran
- Young Researchers Club ,Tabriz, Iran (http://www.yrc.ir)
- Student Researchers Club ,Tehran, Iran (http://bpdanesh.ir)

Research Interests:

Hydrologic Modeling; Regional Flood, Low Flow and Drought Frequency Analysis; Statistical and Stochastic Hydrology; Meteorology; Climate Change; Hydrologic Time Series Modeling and Forecasting; Hydrology of Arid Regions; GIS Application in Hydrology; Hydroinformatics; Water Resources Management; Groundwater modeling; Data mining

Skills:

Languages:

English (Good), Persian (Mother Tongue), Azeri Turkish (Basic), Arabic (Basic).

Softwares:

Fluent with ArcGIS 10.3, Surfer, Autocad, Smada, Hyfa

Have experience with Maple, Mathematica, R Project, and Linux

Programming with MATLAB, and Visual Basic.

Statistical software: SPSS, NCSS, MINITAB, SAS

Modeling Software: Modflow (PMWIN 5.3), Vensim, SAP2000, SEEP/W, CE-QUAL-W2

Text formatting and office computing: Word, EndNote, Excel, PowerPoint, Visio, Publisher

Educational Activity:

Teaching

- Surveying (BSc),
- Groundwater Hydrology (BSc)
- Water Conveyance Structures (BSc)
- Agricultural Operations (BSc)
- Meteorology and Climatology (BSc)
- Surface Hydrology (BSc)
- Water Resources Management (BSc)
- Technical Software (BSc)
- Design of Earth Dams (BSc)
- Foundation Engineering (BSc)
- Water Resources Systems Analysis (MSc)
- Mathematical Models in Hydrology (MSc)
- Earth Dams (MSc)
- Advanced Surface Hydrology (MSc)
- Special Subjects in Hydrology (MSc)
- Advanced Engineering Hydrology (PhD)
- Advanced Water Resources Management (PhD)
- Stochastic Methods in Water Resources (PhD)
- Hydrology of Urban Watersheds and Small areas (PhD)
- Water Resources Systems Analysis (PhD)
- Modeling in Environmental Sciences and Engineering (PhD)
- Statistical Hydrology (PhD)

Mentoring Postdoctoral Scholars

Mohammad Nazeri Tahroudi, 2022. Postdoctoral Researcher, Department of Water Engineering, Shahrekord University, Development of copula-based models for hydrological simulation and forecasting (Zayanderood dam basin) founded by Iran National Science Foundation (INSF).

Thesis supervision

PhD. Student

Sohrabi, Fatemeh, (2025). Analysis and study of estimated PMP values using different methods and its future prospects (Case Study: Urmia Lake Basin). Department of Water Engineering, Faculty of Agriculture, Shahrekord University, (Supervisor)

Alipour Nasir Mahaleh, Farshad, 2024. Analysis of Water Transfer Projects by Combining Public Choice Approach and Game Theory (Case Study: Beheshtabad Water Transfer Project). Department of Water Engineering, Faculty of Agriculture, Shahrekord University, (Supervisor)

Kazemiazar, Faraham (2023). Short term flood forecasting using artificial intelligence and reanalysis data. Department of Water Engineering, Faculty of Agriculture, Urmia University, (Advisor)

Mehdizadeh, Saleh (2023). Investigation of Saltwater Intrusion into Confined and Inclined Coastal Aquifers Based on Semi-analytical Solution of Henry Problem. Department of Water Engineering, Faculty of Agriculture, Shahrekord University, (Supervisor)

Seifian, Zahra, (2023). Spatial and temporal analysis of meteorological and soil moisture drought with observational and satellite data using Copula functions. Department of Water Engineering, Faculty of Civil Engineering, Islamic Azad University, Central Tehran Branch. (Advisor)

Ahmadifar, Roghayeh, 2022. Conjunctive use of surface and groundwater resources under the influence of climate change and uncertainty- Najafabad sub-basin. Department of Civil Engineering, Isfahan University of Technology. (Advisor)

Adib Majd, Esmaeil, 2022. Development of a Model for Inter-Seasonal Planning of Water Resources considering Deficit Irrigation (Case study: Zayandehrud River Basin). Department of Water Engineering, Faculty of Agriculture, Shahrekord University, (Supervisor)

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Kazemi Azar, Faraham, Short-term Flood Forecasting Using Artificial Intelligence and Reanalysis Data. Department of Water Engineering, Faculty of Agriculture, Urmia University. (Advisor)

Mohammadi, Bahar, Flood risk analysis in a chain system of series and parallel reservoirs by dynamic Bayesian network method considering hydrological and hydraulic uncertainties (Case study: Dez and Karun rivers, Khuzestan). Department of Water Engineering, Faculty of Agriculture, Shahrekord University, (Advisor)

Moradzadeh Rahmatabadi, Samira. 2022. Bivariate analysis of flood variables using Copula functions in flood-prone areas (Case study of Khanmirza and Kesilian basins). Islamic Azad University, Kerman Branch, (Advisor)

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Pirmoradian, Roghayeh, 2021. Flash Flood Modeling Using Real-Time and Near Real- Time Satellite Precipitation Products. Department of Water Engineering, Faculty of Agriculture, Shahrekord University, (Supervisor)

Nazeri Tahroudi, Mohammad, 2020. Analysis of Three-Variable Joint Frequency of Water Resources Signatures in Lake Urmia Basin by Using Copula Functions. Department of Water Engineering, Faculty of Agriculture, University of Birjand, (Co-Advisor)

Sharifi, Alireza, 2020. Determining the contributions of the climate and human activities to runoff regime changes in the Zayandehrud River branches (Ghaleh Shahrokh sub-basin). Department of Water Engineering, Faculty of Agriculture, Shahrekord University, (Supervisor)

Amini, Sasan, 2020. Uncertainty Quantification of Hydrologic Predictions and Flood Risk Analysis (Case study: Beheshtabad Watershed). Department of Rangeland and Watershed Management, Faculty of Natural Resources and Geosciences, Shahrekord University, (Co-Supervisor)

Khani Temeliyeh, Zabihollah, 2020. Drought Analysis and its Risk Assessment using Copula Functions (Case Study: Iran). Department of Water Engineering, Faculty of Agriculture, Urmia University, (Co-Supervisor)

Ahmadi, Farshad, 2016. Multivariate Analysis of Flows Characteristics in Complex River Systems with Multiple Tributaries. Department of Hydrology and Water Resources, Faculty of Water Sciences, Shahid Chamran University of Ahvaz, (Co-Advisor).

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Abdi Kordani, Amin, 2016. Regional Bivariate Modeling of Droughts Using Copula Functions and Charged System Search Algorithm. Department of Water Resources Engineering, Faculty of Civil Engineering, University of Tabriz, (Co-Advisor).

MSc. Student

Ardeshiri Saadatollah (2025). Evaluation of Accuracy of Satellite Precipitation Products in Chaharmahal and Bakhtiari Province. Department of Water Engineering, Faculty of Agriculture, Shahrekord University, (Supervisor).

Alipour Modab, Gholamreza (2024). Modelling Pan Evaporation in Kohkiloyeh and Boyer Ahmad Provinces Using Deep Neural Network and Support Vector Machine. Department of Water Engineering, Faculty of Agriculture, Shahrekord University, (Supervisor).

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Kolahdouzan, Ali, 2014. Investigation of Trends in Hydrogeochemical Elements of Groundwater (Case Study: Najafabad Plain). Department of Water Engineering, Faculty of Agriculture, University of Tabriz, (Co-Advisor).

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Barghi Velinjagh, Vahid, 2013. Simulation of Ajabshir Plain Aquifer Using Modflow. Department of Civil Engineering, Faculty of Technical and Engineering, Islamic Azad University, Maragheh Branch, (Co-Advisor).

Zehni, Mohammad, 2013. Reservoir inflow forecasting using Artificial Neural Networks and comparison with Multiple Linear Regression method (Case Study: Mahabad dam). Department of Civil Engineering, Faculty of Technical and Engineering, Islamic Azad University, Maragheh Branch, (Co-Advisor).

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Research Project

Finished research project

- Investigation and monitoring of green mining conditions (Durak Refractory Soil Mine). (2025). Supported by Esteghlal Sepahan Company.
- Calculation of current resources and consumption of water in Chaharmahal and Bakhtiari province and estimation of drinking and industrial consumption in 2050. (2024). Supported by Regional Water Company of Chaharmahal and Bakhtiari, Iran.
- Comprehensive plan to determine the water needs of different parts of the province from the Karun Basin (2023). Supported by Organization of Agricultural Jahad, Chaharmahal and Bakhtiari Province.
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- Updating Intensity-Duration-Frequency Charts by Considering Non-Stationarity. (2025). Supported by Regional Water Company of Chaharmahal and Bakhtiari, Iran.
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