

CURRICULUM VITAE

Ali Danandeh Mehr

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h-index: 36 (google scholar); 32 (Scopus)

Total Number of SCI/SCI-E/ESCI Papers: 84



Civil Engineering Department,
Faculty of Engineering, Antalya Bilim University, Antalya, Turkey.
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Education

- 2012 – 2016 **Ph.D.**
Istanbul Technical University, Istanbul, Turkey.
Major Field: Civil Eng. Minor Field: Hydraulics and Water Resources.
Title of the thesis: *Climate change impacts on catchment-scale extreme rainfall variability*
- 2002 – 2005 **M.Sc.**
Power and Water University of Technology, Tehran, Iran
Major Field: Civil Engineering Minor Field: River Engineering
Title of the thesis: *Optimization of Flood Control Structures in Urban Catchments*
- 1997 – 2001 **B.Sc.**
Islamic Azad University – Tabriz Branch (www.iaut.ac.ir) – Tabriz, Iran
Major Field: Civil Engineering

Academic/Work Experience

- 2019 (April) **Associate Professor**, Civil Engineering Department,
–2024 (July) Faculty of Engineering, Antalya Bilim University, Antalya, Turkey.
Approved by Presidency of the Inter-University Board, Republic of Turkey (29.04.2019)
- 2023 (Aug.) **Adjunct Researcher**, Centre of Excellence in Hydroinformatics, Faculty of Civil Engineering,
– University of Tabriz, Tabriz, Iran
- 2022 (Aug.) **Visiting Scholar**, Centre of Excellence in Hydroinformatics, Faculty of Civil Engineering,
–2023 (Jul.) University of Tabriz, Tabriz, Iran
- 2021 (Aug.) **Postdoctoral Researcher**, Water, Energy and Environmental Research Unit
–2022 (Jul.) University of Oulu, Oulu, Finland
- 2017 (Sept.) **Assistant Professor**, Civil Engineering Department,
–2019 (Sept.) Faculty of Engineering, Antalya Bilim University, Antalya, Turkey.
- 2016 (Jul.) **Postdoctoral Research Fellow**, Water Resources Engineering Department
–2017 (Jul.) Faculty of Civil Engineering, University of Tabriz, Tabriz, Iran.
- 2017 – 2017 **Guest Lecturer**, Civil Engineering Department
Near East University, Nicosia, North Cyprus.

- 2016 – 2016 **Guest Lecturer**, Civil Engineering Department
Eastern Mediterranean University, Famagusta, North Cyprus.
- 2014 – 2016 **Research Assistant**, Marine Engineering Department
Istanbul Technical University, North Cyprus Education and Research Campuses,
Famagusta, North Cyprus.
- 2009 – 2011 **Senior Expert**, Bureau of Rivers & Coastal Engineering
Iran Water Resources Management Company. (www.wrm.ir) Tehran, Iran.

Consulting Experience

- 2017 – 2024 **RTR Engineering and Consulting Co.**, Antalya, Turkey
Hydrology and water resources engineering expert
- 2007 – 2009 **Sangab Zagros Consulting Engineering Co.**, Shiraz, Iran
Hydrological and hydraulic studies of river training projects
- 2004 – 2007 **Ab Pouyeshgaran Novin Consulting Engineering Co.**, Tehran, Iran
Hydrologic and hydraulic studies for river training projects
- 2002 – 2004 **Tarh-e No Andishan Consulting Engineering Co.**, (www.tna.ir). Tehran, Iran
Hydrological and hydraulic design of bridges/culverts

Awards/honors

- 2022 Top 1% of scholars in the specific fields of genetic programming, forecasting, and programming models (the World Highly Ranked Scholars 2022, reported by ScholarGPS™)
- 2022 Hydrological Science Journal Reviewer Award (IAHS with the support of Taylor and Francis)
- 2019-2023 Top 2% Scientist in the field of Engineering (Elsevier and Stanford University Selection)
- 2019 Best oral presentation award (The 1st International and 4th National Congress on Iranian Irrigation and Drainage, 13-14 November 2019, Urmia University, Iran)
- 2018-2023 Top Researcher Award (Antalya Bilim University)
- 2017 Young Researcher Award (Near East University)
- 2017 Publons Peer Review Awards (One of top one percent peer reviewers)
- 2016 Best Ph.D. Thesis Award, Istanbul Technical University

Languages: English: Fluent **Turkish:** Fluent **Farsi:** Fluent **Azerbaijani:** Mother tongue

Professional Software Application Experience

- HEC Series (HMS, RAS, SSP, DSSvu)
- WMS (Watershed Modeling System)
- MATLAB (Matrix Laboratory)
- Arc GIS/QGIS
- Panoply/NCview
- Discipulus/Gene-Xpro-Tools/GPTIPS/GPdotNet (Genetic Programming Tools)/RapidMiner

Editorial board membership

- Journal of Civil and Environmental Engineering (University of Tabriz: Editorial Board: Since 2020)
- Frontiers in Environmental Sciences (Associate Editor Since 2022-22023)
- AQUA, IWA Publishing, London, UK. (Guest Editor, 2023-2024)

Technical Program Committee Member/Invited Speaker

- *Invited speaker*: The bet and Road workshop on water resources, May 28, 2024, Nanjing University, **Nanjing** China
- *Invited speaker*: 1th National Conference on Application of New Technologies in Civil Engineering, May 15, 2024, Islamic Azad University, **Tabriz**, Iran
- Special Session Chair: 7th International Conference on Control, Instrumentation and Automation (ICCIA), **Tabriz**, Iran.
- *Keynote speaker and International Program Committee*: 12th International Scientific Conference on Production Engineering (Development and Modernization of Production) September 2019, **Sarajevo**, Bosnia and Herzegovina
- Special Session Chair: Intelligence and Fuzzy Systems (INFUS 2019), **Istanbul**, Turkey.
- *Session Chair*: International Water and Environment Congress (SUÇEV 2018), March 22-24, Bursa, Turkey.
- *Executive committee*: Joint Workshop-cum-Seminar on Soft Computing Methods in Water Resources Engineering. **Nicosia**, North Cyprus. November 29, 2016.
- *International Program Committee*: 9th International Conference on Theory and Application of Soft Computing, Computing with Words and Perception, ICSCCW 2017, 22-23 August 2017, **Budapest**, Hungary
- *International Program Committee*: 13th International Conference on Applications of Fuzzy Systems and Soft Computing, ICAFTS 2018, 27-28 August 2018, **Warsaw**, Poland.

List of Publications

SCI/SCI-E/ESCI Journals:

84. Danandeh Mehr, A., Shadkani, S., Abualigah, L., Safari, M. J. S., & Migdady, H. (2024). A novel stabilized artificial neural network model enhanced by variational mode decomposing. *Heliyon*, 10, e34142.
83. Partani, S., Danandeh Mehr, A., Bostanmaneshrad, F., et al. (2024). Determining the main driver of hypoxia potential in freshwater inland lakes. *Journal of Cleaner Production*, 458,142521.
82. Lee, S., Moriasi, D. N., Fortuna, A.M., Mirchi, A., Danandeh Mehr, A., Chu, M.L., Guzman, J.A. & Starks, P. (2024). Modeling the impact of measured and projected climate and management systems on agricultural fields: Surface runoff, soil moisture, and soil erosion. *Journal of Environmental Quality*, 1-13, DOI: 10.1002/jeq2.20565.
81. Lee, S., Moriasi, D. N., Danandeh Mehr, A., & Mirchi, A. (2024). Sensitivity of Standardized Precipitation and Evapotranspiration Index (SPEI) to the choice of SPEI probability distribution and evapotranspiration method. *Journal of Hydrology: Regional Studies*, 53, 101761.
80. Çelebi, A., Şengörür B., Torabi Haghghi, A., & Danandeh Mehr, A. (2024) Riparian Soil Pollution Caused by Sediment Metal Transport: Seasonal Changes and Ecological Risk Assessment. *Toxics*, 12(3):213.
79. Partani, S., Danandeh Mehr, A., & Jafari, A. (2024). Enhancing nutrient absorption through the influence of mangrove ecosystem on flow rate and retention time in salt marshes. *Science of The Total Environment*, 171518.
78. Modaresi, F., Danandeh Mehr, A. (2024). A novel approach to predictor selection among large-scale climate indices for seasonal rainfall forecasting in small catchments. *Hydrological Sciences Journal*, 1–18. <https://doi.org/10.1080/02626667.2024.2313572>

77. Fathian, F., Dehghan, Z., Alee, M. M., Vaheddoost, B., Abualigah, L., & Danandeh Mehr, A. (2023). Regional classification of extreme droughts across Iran. *Acta Geophysica*, 1-25.
76. Salamttalab, M. M., Parmas, B., Mustafa Alee, H., Hooshyaripor, F., Danandeh Mehr, A., Vosoughifar, H., ... & Noori, R. (2023). A Finite Volume Method for a 2D Dam-Break Simulation on a Wet Bed Using a Modified HLLC Scheme. *Water*, 15(21), 3841.
75. Partani, S., Danandeh Mehr, A., Maghrebi, M., Mokhtari, R., Nachtnebel, H. P., Taniwaki, R. H., & Arzhang, A. (2023). A new spatial estimation model and source apportionment of aliphatic hydrocarbons in coastal surface sediments of the Nayband Bay, Persian Gulf. *Science of The Total Environment*, 166746.
74. Achite, M., Gul, E., Elshaboury, N., Jehanzaib, M., Mohammadi, B., & Mehr, A. D. (2023). An improved adaptive neuro-fuzzy inference system for hydrological drought prediction in Algeria. *Physics and Chemistry of the Earth, Parts A/B/C*, 131, 103451.
73. Reihanifar, M., Danandeh Mehr, A., Tur, R., Ahmed, A. T., Abualigah, L., & Dąbrowska, D. (2023). A new multi-objective genetic programming model for meteorological drought forecasting. *Water*, 15(20), 3602.
72. Danandeh Mehr, A., Reihanifar, M., Alee, M. M., Vazifekhhah Ghaffari, M. A., Safari, M. J. S., & Mohammadi, B. (2023). VMD-GP: A New Evolutionary Explicit Model for Meteorological Drought Prediction at Ungauged Catchments. *Water*, 15(15), 2686.
71. Soylu Pekpostalci, D., Tur, R., Danandeh Mehr, A. (2023) Spatiotemporal Variations of Meteorological Drought across Mediterranean Region of Türkiye. *Pure and Applied Geophysics*, 180, 3089–3104.
70. Haghghi, A. T., Akbari, M., Noori, R., Danandeh Mehr, A., Gohari, A., Sönmez, M. E., ... & Kløve, B. (2023). The impact of Turkey's water resources development on the flow regime of the Tigris River in Iraq. *Journal of Hydrology: Regional Studies*, 48, 101454.
69. Danandeh Mehr, A. (2023). A Gene-Random Forest Model for Meteorological Drought Prediction. *Pure and Applied Geophysics*, 1-11.
68. Mustafa Alee, M., Danandeh Mehr, A., Akdegirmen, O., & Nourani, V. (2023). Drought Assessment across Erbil Using Satellite Products. *Sustainability*, 15(8), 6687.
67. Soylu Pekpostalci, D., Tur, R., Danandeh Mehr, A., Vazifekhhah Ghaffari, M.A., Dąbrowska, D., Nourani, V. (2023) Drought Monitoring and Forecasting across Turkey: A Contemporary Review. *Sustainability* 2023, 15, 6080. <https://doi.org/10.3390/su15076080>
66. Danandeh Mehr, A., Marttila, H., Torabi Haghghi, A. T., Croghan, D., & Fathollahzadeh Attar, N. (2023). GTAR: a new ensemble evolutionary autoregressive approach to model dissolved organic carbon. *Journal of Water Supply: Research and Technology-Aqua*. doi: 10.2166/aqua.2023.235
65. Danandeh Mehr, A., Tur, R., Alee, M. M., Gul, E., Nourani, V., Shoaee, S., & Mohammadi, B. (2023). Optimizing Extreme Learning Machine for Drought Forecasting: Water Cycle vs. Bacterial Foraging. *Sustainability*, 15(5), 3923.
64. Maghrebi, M., Noori, R., Danandeh Mehr, A., Lak, R., Darougheh, F., Razmgir, R., ... & Kløve, B. (2023). Spatiotemporal Changes in Iranian Rivers' Discharge. *Elementa Science of the Anthropocene*, 11(1), 00002.
63. Hisam, E., Danandeh Mehr, A., Alganci, U., & Seker, D. Z. (2023). Comprehensive evaluation of Satellite-Based and reanalysis precipitation products over the Mediterranean region in Turkey. *Advances in Space Research*, 71(7), 3005-3021.
62. Maghrebi, M., Danandeh Mehr, A., Karrabi, S. M., Sadegh, M., Partani, S., Ghiasi, B., & Nourani, V. (2022). Spatiotemporal Variations of Air Pollution during the COVID-19 Pandemic across Tehran, Iran: Commonalities with and Differences from Global Trends. *Sustainability*, 14(23), 16313.
61. Heddam, S., Kim, S., Danandeh Mehr, A., Zounemat-Kermani, M., Ptak, M., Elbeltagi, A., ... & Tikhmarine, Y. (2022). Bat algorithm optimized extreme learning machine (Bat-ELM): A novel approach for daily river water temperature modelling (2022) *The Geographical Journal*.; 00:1–12. <https://doi.org/10.1111/geoj.12478>
60. Danandeh Mehr, A., Erkinaro, J., Hjort, J., Haghghi, A. T., Ahrari, A., Korpisaari, M., ... & Marttila, H. (2022). Factors affecting the presence of Arctic charr in streams based on a jittered binary genetic programming model. *Ecological Indicators*, 142, 109203.

59. Gholizadeh, R., Yilmaz, H., & Danandeh Mehr, A. (2022). A new binary genetic programming approach to design public transportation systems according to transit-oriented development criteria. *Scientia Iranica*, (in press).
58. Rosbjerg, D., Engeland, K., Førland, E., Haghghi, A. T., Mehr, A. D., & Olsson, J. (2022). Nordic contributions to stochastic methods in hydrology. *Hydrology Research*, 53 (6): 840–866.
57. Tao, H., Hameed, M. M., Marhoon, H. A., Zounemat-Kermani, M., Salim, H., Sungwon, K., ... & Yaseen, Z. M. (2022). Groundwater Level Prediction using Machine Learning Models: A Comprehensive Review. *Neurocomputing*, 489, 271-308.
56. Gholizadeh, R., Yilmaz, H., & Danandeh Mehr, A. (2022). Multitemporal meteorological drought forecasting using Bat-ELM. *Acta Geophysica*, 70(2), 917-927.
55. Danandeh Mehr, A., Torabi Haghghi, A., Jabarnejad, M., Safari, M.J.S., Nourani, V. (2022). A new evolutionary hybrid random forest model for SPEI Forecasting. *Water* 14, 755. <https://doi.org/10.3390/w14050755>
54. Danandeh Mehr, A., Ghadimi, S., Marttila, H., & Torabi Haghghi, A. (2022). A new evolutionary time series model for streamflow forecasting in boreal lake-river systems. *Theoretical and Applied Climatology*, 1-14.
53. Danandeh Mehr, A., Rikhtehgar Ghiasi, A., Yaseen, Z. M., Sorman, A. U., & Abualigah, L. (2022). A novel intelligent deep learning predictive model for meteorological drought forecasting. *Journal of Ambient Intelligence and Humanized Computing*, 1-15.
52. Tur, R., Tas, E., Torabi Haghghi, & A., Danandeh Mehr, A., (2021). Sea Level Prediction Using Machine Learning. *Water* 13, 3566. <https://doi.org/10.3390/w13243566>
51. Gul, E., Safari, M. J. S., Torabi Haghghi, A., Danandeh Mehr, A., (2021). *Sediment transport modeling in nondeposition with clean bed condition using different tree-based algorithms*. *PLoS ONE* 16(10): e0258125. <https://doi.org/10.1371/journal.pone.0258125>
50. Danandeh Mehr, A., & Fathollahzadeh Attar, N. (2021). *A gradient boosting tree approach for SPEI classification and prediction in Turkey*. *Hydrological Sciences Journal*, Doi: 10.1080/02626667.2021.1962884
49. Rahimzad, M., Moghaddam Nia, A., Zolfonoon, H., Soltani, J., Danandeh Mehr, A., & Kwon, H. H. (2021). *Performance Comparison of an LSTM-based Deep Learning Model versus Conventional Machine Learning Algorithms for Streamflow Forecasting*. *Water Resources Management*, 1-21.
48. Danandeh Mehr, A., Hrnjica, B., Bonacci, & Torabi Haghghi, A. (2021) *Innovative and successive average trend analysis of temperature and precipitation in Osijek, Croatia*. *Theoretical and Applied Climatology* 145, pages875–890.
47. Danandeh Mehr, A. (2021). *Drought classification using gradient boosting decision tree*. *Acta Geophysica*, 69, 909 – 918.
46. Danandeh Mehr A., Gandomi, A.H. (2021). *MSGP-LASSO: an improved multi-stage genetic programming model for streamflow prediction*. *Information Sciences*, 561, 181-195.
45. Danandeh Mehr A., Safari, M. J. S., Nourani V. (2021). *Wavelet packet-genetic programming: a new model for meteorological drought forecasting*. *Teknik Dergi*, 32 (4).
44. Alizamir, M., Heddami, S., Kim, S., & Danandeh Mehr, A. (2020). *On the implementation of a novel data-intelligence model based on extreme learning machine optimized by bat algorithm for estimating daily chlorophyll-a concentration: case studies of river and lake in USA*. *Journal of Cleaner Production*, 124868.
43. Modabberi, A., Noori, R., Madani, K., Ehsani, A.H., Danandeh Mehr, A., Hooshyaripor, F., & Kløve B. (2020) *Caspian Sea is eutrophying: The alarming message of satellite data*. *Environmental Research Letters*, 15, 124047.
42. Danandeh Mehr A., Tur R., Çalıřkan C., & Tas E. (2020). *A novel fuzzy random forest model for meteorological drought classification and prediction in ungauged catchments*. *Pure and Applied Geophysics*, 177, 5993–6006.
41. Danandeh Mehr A., Vaheddoost, B., & Mohammadi, B. (2020). ENN-SA: A novel neuro-annealing model for multi-station drought prediction. *Computers & Geosciences*, 145, 104622

40. Danandeh Mehr A. (2020). *Seasonal rainfall hindcasting using ensemble multi-stage genetic programming*. Theoretical and Applied Climatology. 143(1), 461-472
39. Danandeh Mehr A. (2020). *An ensemble genetic programming model for seasonal precipitation forecasting*. SN Applied Science 2:1821. <https://doi.org/10.1007/s42452-020-03625-x>
38. Mohammadi, B., Vaheddoost, B., & Danandeh Mehr A. (2020). *A spatiotemporal teleconnection study between Peruvian precipitation and oceanic oscillations*. Quaternary International., <https://doi.org/10.1016/j.quaint.2020.09.042>
37. Maghrebi, M., Noori, R., Bhattarai, R., Mundher Yaseen, Z., Tang, Q., Al-Ansari, N., Danandeh Mehr A., ... & Torabi Haghghi, A. (2020). *Iran's Agriculture in the Anthropocene*. Earth's Future, 8(9), e2020EF001547.
36. Danandeh Mehr A., Tas, E., Kahya E. (2020). *Risk assessment of fuel supply pipelines: The Kalecik Power Plant Case Study*. Journal of Pipeline Systems - Engineering and Practice. 11(4): 05020005.
35. Rahmani-Rezaeieh A., Mohammadi, M., Danandeh Mehr A. (2020). *Climate change impacts on floodway and floodway fringe: a case study in Shahrchay River Basin, Iran*. Arabian Journal of Geosciences. 13:12 (494). <https://doi.org/10.1007/s12517-020-05444-1>
34. Afshar, M.H., Şorman, A., Tosunoğlu, F. Bulut B., Yilmaz M.T., Danandeh Mehr A. (2020). *Climate change impact assessment on mild and extreme drought events using copulas over Ankara, Turkey*. Theoretical and Applied Climatology, 141(3-4)1045-1055.
33. Mehdizadeh, S., Ahmadi F., Danandeh Mehr A., Safari, M. J. S. (2020). *Drought modeling using classic time series and hybrid wavelet-gene expression programming models*. Journal of Hydrology, 587, 125017.
32. Safari, M. J. S., Rahimzadeh Arashloo, S., Danandeh Mehr A., (2020). *Rainfall-runoff modeling through regression in the reproducing kernel Hilbert space algorithm*. Journal of Hydrology, 587, 125014.
31. Sheikh Khozani, Z., Safari, M. J. S., Danandeh Mehr, A., & Wan Mohtar, W. H. M. (2020). *An ensemble genetic programming approach to develop incipient sediment motion models in rectangular channels*. Journal of Hydrology, 584, 124753.
30. Danandeh Mehr A., Safari, M. J. S., (2020). *Multiple genetic programming: a new methodology to improve genetic-based explicit monthly rainfall models*. Environmental Modeling and Assessment, 192:25.
29. Danandeh Mehr A., Bagheri, F., Safari, M. J. S., (2020). *Electrical energy demand prediction: a comparison between genetic programming and decision tree*. Gazi University Journal of Science, 33(1), 62-72.
28. Ebtehaj, I., Bonakdari, H., Safari, M. J. S., Gharabaghi, B., Zaji, A. H., Madavar, H. R., ... & Danandeh Mehr, A. (2020). *Combination of sensitivity and uncertainty analyses for sediment transport modeling in sewer pipes*. International Journal of Sediment Research, 35 (2), 157-170.
27. Danandeh Mehr, A., Vaheddoost, B. (2020). *Identification of the trends associated with the SPI and SPEI indices in Ankara, Turkey*. Theoretical and Applied Climatology, 139(3-4), 1531-1542.
26. Danandeh Mehr A., Safari, M. J. S., (2020). *Application of soft computing techniques for particle Froude number estimation in sewer pipes*. Journal of Pipeline Systems - Engineering and Practice 11(2): 04020002.
25. Rahmani-Rezaeieh A, Mohammadi, M., Danandeh Mehr A. (2020). *Ensemble gene expression programming: a new approach for evolution of parsimonious streamflow forecasting model*. Theoretical and Applied Climatology, 139 (1-2), 549-564.
24. Danandeh Mehr A., Sorman, A.U., Kahya E., Hesami Afshar, M. (2020). *Climate change impacts on meteorological drought using SPI and SPEI: case study of Ankara, Turkey*. Hydrological Sciences Journal 65(2), 254-268.
23. Hrnjica, B., Danandeh Mehr, A. Behrem, Š., and Ağralioğlu N. (2019). Genetic Programming for Turbidity Prediction: Hourly and Monthly Scenarios. Pamukkale University Journal of Engineering Sciences, 25 (8), 992-997.
22. Nourani, V., Ghasemzade M., Danandeh Mehr, A., and Sharghi E. (2019). *Investigating the effect of hydroclimatological variables on Urmia Lake water level using wavelet coherence measure*. Journal of Water and Climate Change, 10(1), 13-29.

21. Danandeh Mehr, A., Jabarnejad, M., and Nourani, V. (2019). *Pareto-optimal MPSA-MGGP: a new gene-annealing model for monthly rainfall forecasting*. Journal of Hydrology, 571, 406-415.
20. Danandeh Mehr, Nourani, V., Karimi Khosroshahi V., and Ghorbani, M.A. (2019). *A hybrid support vector regression–firefly model for monthly rainfall forecasting*. International Journal of Environmental Science and Technology, 16, 335–346.
19. Danandeh Mehr A., Nourani, V., Kahya E., Hrnjica B., Sattar, AMA., Yaseen ZM. (2018). *Genetic programming in water resources engineering: A state-of-the-art review*. Journal of Hydrology, 566, 643-667.
18. Danandeh Mehr A. (2018). *An improved gene expression programming model for streamflow forecasting in intermittent streams*. Journal of Hydrology, 563, 669-678.
17. Ghorbani M. A., Khatibi R., Danandeh Mehr A. and Asadi H. (2018). *Chaos-based multigene genetic programming: a new hybrid strategy for river flow forecasting*. Journal of Hydrology, 562, 455-467.
16. Safari, M. J. S., and Danandeh Mehr A. (2018). *Multigene genetic programming for sediment transport modeling in sewers at non-deposition with deposited bed condition*. International journal of sediment research 33, 262–270
15. Danandeh Mehr, A. and Nourani, V. (2018). *Season algorithm-multigene genetic programming: A new approach for rainfall-runoff modelling*. Water Resources Management, 32 (8), 2665-2679.
14. Nourani, V., Danandeh Mehr, A., and Azad, N. (2018). *Trend analysis of hydroclimatological variables in Urmia Lake basin using hybrid wavelet Mann–Kendall and Sen tests*. Environmental Earth Sciences, 77 (5), 207.
13. Olyaic, E. Zare Abyaneh, H. and Danandeh Mehr, A. (2017). *A comparative analysis among computational intelligence techniques for dissolved oxygen prediction in Delaware River*. Geoscience Frontiers 8, 517-527.
12. Danandeh Mehr, A. Nourani, V., Hrnjica B. and Molajou A. (2017). *A binary genetic programming model for teleconnection identification between global sea surface temperature and local maximum monthly rainfall events*. Journal of Hydrology, 555, 397-506.
11. Yaseen, Z. M., Ebtehaj, I., Bonakdari, H., Deo, R. C., Danandeh Mehr, A., Mohtar, W. H. M. W., ... & Singh, V. P. (2017). *Novel approach for streamflow forecasting using a hybrid ANFIS-FFA model*. Journal of Hydrology, 554, 263-276.
10. Danandeh Mehr, A. and Kahya, E. (2017). *A Pareto-optimal moving average multigene genetic programming model for daily streamflow prediction*. Journal of Hydrology, 549, 603-615.
9. Danandeh Mehr, A. and Nourani, V. (2017). *A Pareto-optimal moving average-multigene genetic programming model for rainfall-runoff modelling*. Environmental Modelling and Software, 92: 239-251.
8. Danandeh Mehr, A. and Kahya, E. (2017). *Climate change impacts on catchment-scale extreme rainfall variability: Case Study of Rize Province, Turkey*. Journal of Hydrologic Engineering, 22(3), 05016037, 10.1061/(ASCE)HE.1943-5584.0001477.
7. Danandeh Mehr, A. and Kahya, E. (2017). *Grid-based performance evaluation of GCM-RCM combinations for rainfall reproduction*. Theoretical and Applied Climatology 129 (1): 47-57.
6. Danandeh Mehr, A., Kahya E., Şahin, A. and Nazemosadat M.J. (2015) *Successive-station monthly streamflow prediction using different ANN algorithms*. International Journal of Environmental Science and Technology, 12 (7): 2191-2200.
5. Danandeh Mehr, A., Kahya, E. and Özger M. (2014). *A gene-wavelet model for long lead-time drought forecasting*. Journal of Hydrology 517, 691-699.
4. Danandeh Mehr, A., Kahya, E. and Yerdelen, C. (2014). *Linear genetic programming application for successive-station monthly streamflow prediction*. Computers & Geosciences 70, 63-72.
3. Uyumaz, A., Danandeh Mehr A., Kahya E. and Erdem H. (2014) *Rectangular side weirs discharge coefficient estimation in circular channels using linear genetic programming approach*. Journal of Hydroinformatics 16 (6), 1318-1330.
2. Danandeh Mehr, A., Kahya, E., Bagheri, F. and Deliktas E. (2014) *Successive-station monthly streamflow prediction using neuro-wavelet technique*. Earth Science Informatics 7, 217-229.

1. Danandeh Mehr, A., Kahya E. and Olyai E. (2013) *Streamflow prediction using linear genetic programming in comparison with a neuro-wavelet technique*. Journal of Hydrology, 505:240–249.

Other peer-reviewed journal papers:

10. Darabi, H., Danandeh Mehr, A., Kum, G., Sönmez, M. E., Dumitrache, C. A., Diani, K., ... & Torabi Haghghi, A. (2023). *Hydroclimatic Trends and Drought Risk Assessment in the Ceyhan River Basin: Insights from SPI and STI Indices*. Hydrology, 10(8), 157.
9. Danandeh Mehr, A. and Akdegirmen, O. (2021). *Estimation of Urban Imperviousness and its Impacts on Flashfloods in Gazipaşa, Turkey*. Knowledge-Based Engineering and Sciences, 2(1), 9-17.
8. Tas, E., Agiralioglu, N., Danandeh Mehr, A., Tur, R. (2020). *Energy Loss Investigation in Submarine Pipelines: Case Study of Cyprus Water Supply Project*. Advance Researches in Civil Engineering, 2(2), 31-44. doi: 10.30469/arce.2020.108582
7. Karimi, B., Safari, M.J.S, Danandeh Mehr, A. and Mohammadi, M.A. (2019). *Monthly rainfall prediction using ARIMA and gene expression programming: a case study in Urmia, Iran*. Online Journal of Engineering Sciences and Technologies. 2(3), 8-14.
6. Danandeh Mehr, A. and Şorman, A.Ü. (2018). *Streamflow and sediment load prediction using linear genetic programming*. Uludağ University Journal of the Faculty of Engineering 23(2), 323-332.
5. Danandeh Mehr, A. (2018). *Month ahead rainfall forecasting using gene expression programming*. American Journal of Earth and Environmental Sciences 1(2), 63-70.
4. Danandeh Mehr, A. and Demirel, M.C. (2016). *On the calibration of multi-gene genetic programming to simulate low flows in the Moselle River*. Uludağ University Journal of the Faculty of Engineering 21 (2), 365-376.
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Research interests: Statistical Hydrology; Hydroinformatics; Natural Hazards; River Basin Modeling

Advised M.Sc. and Ph.D. Thesis

M.Sc.

- Hasan Zirabadi, 2024 (University of Bojnord, Iran), Investigation on the effect of streamflow regime on nitrate concentration <co-advisor – in progress >
- Iman Sardarian, 2024 (Ferdowsi University of Mashhad, Iran), Prediction of SPEI and SPI drought indices using time delay neural networks in different climatic conditions <co-advisor – in progress >
- Hiba Eaeada Hameed Al Kubaisi, 2023-2024 (Antalya Bilim University), Drought modeling and forecasting using emerging deep learning techniques <advisor >
- Melike Çiftçi, 2023-2024 (Akdeniz University), Flood Routing along the Aksu River, Giresun <co-advisor>
- Enes Hişam, 2021-2022 (Istanbul Technical University), Performance assessment of satellite-based rainfall products over Akdeniz Basin <co-advisor>
- Erkin TAS, 2021 (Akdeniz University), Prediction of sea level changes using meteorological factors <co-advisor>
- Esmâ KALE, 2021 (Antalya Bilim University), Drought forecasting using decision tree. <co-advisor>
- Bahareh Karimi, 2018, (University College of Science and Technology, Iran), Monthly rainfall prediction using standard and gene-expression programming and comparing with ARIMA model < co-advisor >
- Saeed Abutalebi, 2018, (University College of Science and Technology, Iran), Monthly rainfall prediction using standard and multi-gene genetic programming and comparing with ARIMA model < co-advisor >
- Yunes Musavi, 2018, (University College of Science and Technology, Iran), Monthly rainfall prediction using standard and linear genetic programming and comparing with ARIMA model < co-advisor >

Ph.D.

- Dilayda Soylu (Akdeniz University, Turkey), Climate changes impact on drought across Akdeniz Basin, Turkey < co-advisor – in progress>
- Aidin Rahmani -Rezaeieh (Islamic Azad University, Iran), Climate changes impact on floodway: a case study on Shahrchi River < 2021, co-advisor >

Courses taught over the past five years.

- B.Sc.: Water Resources Engineering, Case studies in Civil Engineering, Environmental Engineering, Fluid Mechanics, Hydraulics Engineering, Hydrology
- M.Sc.: Soft computing in Civil Engineering, Advanced Hydrology, River Engineering, Scientific Research Techniques and Ethics.
- Ph.D.: Special Topics in Hydrology