

CURRICULUM VITAE

Ali Danandeh Mehr

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

- 2016– 2017 **Postdoc**
Faculty of Civil Engineering, University of Tabriz, Tabriz, Iran.
- 2012 – 2016 **Ph.D.**
Istanbul Technical University, Istanbul, Turkey.
Major Field: Civil Eng. Minor Field: Hydraulics and Water Resources Eng.
Title of the thesis: *Climate change impacts on catchment-scale extreme rainfall variability*
GPA: 4.00 out of 4.00
- 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*
GPA: 3.22 out of 4.00
- 1997 – 2001 **B.Sc.**
Islamic Azad University – Tabriz Branch (www.iaut.ac.ir) – Tabriz, Iran
Major Field: Civil Engineering
GPA: 3.13 out of 4.00

Academic/Work Experience

- 2017 (September) **Assistant Professor**, Civil Engineering Department,
Faculty of Engineering, Antalya Bilim University, Antalya, Turkey.
- 2016 (July) **Postdoctoral Research Fellow**, Water Resources Engineering Department
–2017 (July) Faculty of Civil Engineering, University of Tabriz, Tabriz, Iran.
- 2017 – 2017 **Flying Lecturer**, Civil Engineering Department
Near East University, Nicosia, North Cyprus.
- 2016 – 2016 **Part-time 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.
- 2011 – 2012 **Guest Lecturer**, Continuing Education Centre
Power and Water University of Technology, Tehran, Iran.
- 2010 – 2011 **Part-time Lecturer**, Aghahan Niroo Higher Employees Education Centre
University of Applied Science and Technology, Tehran, Iran.

- 2009 – 2012 **Senior Expert**, Bureau of Rivers & Coastal Engineering
Iran Water Resources Management Company. (www.wrm.ir) Tehran, Iran.
- 2005 – 2006 **Part-time Lecturer**, SAMA College
Islamic Azad University of Tabriz, Tabriz, Iran.
- 2003 – 2004 **Teaching Assistant**, Water Engineering Division
Power and Water University of Technology, Tehran, Iran.

Consulting Experience

- 2007 – 2009 **Sangab Zagros Consulting Engineering Co.**, Shiraz, Iran
Hydrologic and hydraulic studies for 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
Hydrologic and hydraulic design of bridges and culverts for a highway project

Awards

- 2018 Young Researcher Award-2017 (Near East University)
- 2018 Publons Peer Review Awards-2017 (One of top one percent peer reviewers)
- 2018 Outstanding Reviewer-Journal of Hydrology (Achieved: January 2018)
- 2018 Outstanding Reviewer-Global and Planetary Change (Achieved: May 2018)
- 2017 Best Ph.D. Thesis Award (2016), Istanbul Technical University
- 2010 Patent for invention of “floodway fringe determination process”
Department General for Industrial Ownership, Iran. (Patents record entry No. 68252)
- 2004 Ranked 3th among presented papers in the Hydraulic Structures Section.
11th Iranian Civil Engineering Students Conference, Bandar Abbas, Iran

Given Courses

- Universities/Colleges: *Hydraulics, Fluid Mechanics, Static, Water Resources Engineering, Hydrology, Case Studies in Civil Engineering, Environmental Engineering.*
- Continuing Education Centres: *River morphology, Flood way and floodway fringe determination, Hydrologic modelling.*

Languages

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

Professional Software Application Experience

- HEC Series (HMS, Geo-HMS, RAS, Geo-RAS, SSP)
- WMS (Watershed Modelling System)
- MATLAB (Matrix Laboratory)
- Arc GIS
- Panoply

- Discipulus/Gene-Xpro-Tools /GPTIPS/GPdotNet (Genetic Programming Tools)

Reviewer for Peer-reviewed Journals and Conferences

- Turkish Journal of Engineering and Environmental Sciences (2014; Subject Editor)
- 6th National Congress on Civil Engineering, Semnan, Iran (April 2011; reviewer)
- 10th International Congress on Civil Engineering, Tabriz, Iran (May 2015; reviewer)
- 2016 International Conference on Water Resource and Environment (WRE2016), Shanghai, China. (July 2016; reviewer)
- SCI and SCI Exp. Journals (2014 – present; more than 60 manuscript reviewed, list available at: <https://publons.com/author/660918/ali-danandeh-mehr#profile>)

List of Publications

SCI Journals:

19. 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, doi: <https://doi.org/10.1016/j.jhydrol.2018.04.054>
18. Danandeh Mehr, Nourani, V., Karimi Khosroshahi V., and Ghorbani, M.A. (2018). *SVR-Firefly: A new model for monthly rainfall forecasting*. International Journal of Environmental Science and Technology, (in press)
17. 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 (in press)
16. Nourani, V., Ghasemzadeh M., Danandeh Mehr, A. and Sharghi E. (2018). *Investigating the effect of hydroclimatological variables on Urmia Lake water level using wavelet coherence measure*. Journal of Water and Climate Change, jwc2018261.
15. Danandeh Mehr, A. and Nourani, V. (2018). *Season algorithm-multigene genetic programming: A new approach for rainfall-runoff modelling*. Water Resources Management, 1-15. (in press)
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, 77:207 (in press)
13. 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.
12. 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.
11. 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.
10. Danandeh Mehr, A. and Nourani, V. (2017). *Pareto-optimal moving average-multigene genetic programming model for rainfall-runoff modelling*. Environmental Modelling and Software, 92: 239-251.
9. 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.
8. Olyaie, 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. <http://dx.doi.org/10.1016/j.gsf.2016.04.007>
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 Olyaie 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:

2. Danandeh Mehr, A. (2018). *Month ahead rainfall forecasting using gene expression programming*. American Journal of Earth and Environmental Sciences 1(2), 63-70.

1. 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.

ISC Journals (Text in Farsi):

3. Imanshoar, F. Hassanzadeh Y., Alami, M.T. and Danandeh Mehr, A (2013) *Uncertainty analysis for determining density of deposits in dams' reservoirs*. Water and soil Science (Agricultural Science); 23(1):27-37.

2. Danandeh Mehr, A. and Tabatabai, M. R. M (2010) *Prediction of daily discharge trend of river flow based on genetic programming*. Journal of water and soil (Agricultural Science and Technology); 24(2): 325-333.

1. Danandeh Mehr, A. Oliaei, E. and Ghorbani M.A (2010) *Suspended sediment load prediction based on river discharge and genetic programming method*. Watershed Management Research (Pajouhesh-va-Sazandegi); 23(3(88)):44-54.

Magazines (in Farsi)

2. Danandehmehr, A., Jaidari Sh. and Soltani, Sh (2009) *Impact of Mollasadra Dam on Kor River floods*. Magazine of Payam e niroo (170) 64-69. Ministry of Energy. Iran.

1. Danandehmehr, A. Jafari G. and Soltani, Sh. (2010) *Quantitative floodway fringe determination of rivers via multiple attribute decision making and subjective rating methods*. Research Bulletin pp. 90-95. Iran Water Resource Management Company. Iran.

Books:

7. Hrnjica, B. & A. Danandeh Mehr. 2018. "Optimized Genetic Programming Applications: Emerging Research and Opportunities". IGI Global, 256pp.

6. Nourani, V. & A. Danandeh Mehr. 2011. “*Advanced Mathematics for Civil Engineers*”. Javedankherad Publishers, ISBN 978 964 6030 75 6. (in Farsi)
5. Niksefat, GH. R. & A. Danandeh Mehr. 2010. “*Principles of River Engineering*”. Tehran Dibagran artistic and cultural institute, ISBN 978 964 354 996 1. (in Farsi)
4. Danandeh Mehr. A. 2011. “*Hydraulics*”. Tehran Dibagran artistic and cultural institute, First edition 2008. ISBN 978 964 354 924 4. (Republished in 2014) (in Farsi)
3. Danandeh Mehr. A. 2005, “*Mechanics of Fluids and Open Channel Hydraulics (Test Book)*”. Published by Tehran Dibagran artistic and cultural institute, 2005, ISBN 964 354 631 4. (in Farsi)
2. Mousavi Nadushani. S. and A. Danandeh Mehr “*Hydrologic Modelling System (HEC-HMS)*”. 2005, published by Tehran Dibagran artistic and cultural institute, 2005, ISBN 964 354 554 7. (in Farsi)
1. Vafaipoor, R. & A. Danandeh Mehr. 2003, “*Fluid Mechanics–Teaching and Testing*”. Published by Elmiran, 2003, ISBN 964 6531 30 X. (Republished in 2005, 2006 and 2008) (in Farsi).

Research Projects:

2. Kahya, E. Özger, M., Danandeh Mehr, A. et al. 2013-2015. *FRA-PFC: Flood Risk Assessment: Present and Future Conditions in Rize (Project No. 112Y214)*. Scientific and Technological Research Council of Turkey (TUBITAK). Projects No: 112y214.
1. Aidi, Z. Danandeh Mehr, A. Darvishi E. Niksokhan MH. 2012-2013. *Development of DLSRS model for flood fringe determination using regional estimation of 25-year discharge*. Iran Water Resources Management CO (IWRMC). Project No: RIV6-90061.

Technical Reports:

2. Kahya, E. Danandeh Mehr, A. 2016. *AKSA Coastal Pollution Risk Assessment*. Istanbul Technical University-North Cyprus Campuses, R&D technical report.
1. Kahya, E. Danandeh Mehr, A. 2014. *Hydrologic modelling and flood analysis along Aksu River, Giresun Province*. Istanbul Technical University, R&D technical report.

Conference proceedings

27. A. Danandeh Mehr, 2018. Gene Expression Programming for Monthly Streamflow Forecasting at Intermittent Rivers. International Water and Environment Congress (SUÇEV 2018), March 22-24, Bursa, Turkey.
26. Şorman, A.U., A. Danandeh Mehr, Jasim, S., 2018. Study on spatial-temporal variations of Meteorological-Agricultural droughts in Turkey. GeoInformation for Disaster Management Conference (Gi4DM 2018), March 19-21 Istanbul, Turkey.
25. Kahya, E., A. Danandeh Mehr, Şen, O, Akçakay. A and M. Özger, 2016. A comparative study on the current and future design storms over Rize province, Turkey. 12th International Congress on Advances in Civil Engineering (ACE 2016), Istanbul, Turkey.
24. Kahya, E., A. Danandeh Mehr, D. Şen, O. and M. Özger, 2015. Climate Change Impacts on Extreme Rainfalls over Rize Province, Turkey. 10th International Congress on Civil Engineering, 5-7 May 2015 University of Tabriz, Tabriz, Iran.
23. Kahya, E., A. Danandeh Mehr, D. Bozkurt, M. Özger and D.Z. Şeker, 2014. Evaluation of the Performance of GCMs Driven RCM Outputs for Rainfall Prediction over Rize Catchment. 11th International Congress on Advances in Civil Engineering (ACE 2014), Istanbul, Turkey.
22. Danandeh Mehr, A. and F. Imanshoar. 2013, “RESCDAM Method Application For Estimating Loss Of Life

Caused By Dam Break (Case Study: Shahid Madani Dam, Iran)". Proceedings of 5th Iran water resources management Conference, Power and Water University of Technology, Tehran, Iran, February 2011.

21. Özger, M., A. Danandeh Mehr, and E. Kahya, 2013. A Fuzzy Logic Approach for Flood Risk Management: An Application – Mehranrood, Iran. Flood Symposium, 325-336. Trabzon, Turkey (in Turkish).

20. Uyumaz, A., A. Danandeh Mehr, and O. Şen, 2013. "River Morphology and Fluvial Processes". Bursa 3rd International Congress on Water. pp., 1094-1099., 22-24, Bursa, Turkey.

19. Taiebipour, M. and A. Danandeh Mehr. 2011, "Integrated Flood Plain Management Strategy for Kor River Basin in Iran". Abstract of the paper accepted to be presented at the 5th International Conference on Flood Management (ICFM5), Tokyo, Japan, 27-29 September 2011.

18. Danandeh Mehr, A. Jafari, G. Soltani, Sh. and M. Mohammadpour. 2011, "Iran's National Plan for River Training and Flood Fringe Determination". Abstract of the paper accepted to be presented at the International Conference on the Status and Future of the World's Large Rivers, Vienna, Austria. April 2011.

17. Sedighi K. Danandeh Mehr A., and Zarghami M. 2011, "Flood Fringe Determination Based On Multi Criteria Weighting Method, Case Study: Ajichai River". Proceedings of 9th International Iranian civil engineering Congress, Isfahan University of Technology, Isfahan, Iran, (in Farsi).

16. Danandeh Mehr, A. Salimi, M., and Sh. Soltani. 2011, "Performance Evaluation of DLSRS Model in Quantitative Fringe Determination of Mountainous Rivers, Case Study, the Province Of Khorasan E Razavi". Proceedings of 2nd Iranian national conference on applied researches in water resources, Ministry of Energy, Zanjan, Iran, 18th - 19th May 2011.

15. Danandeh Mehr, A. Jafari, G. and Sh. Soltani. 2011, "Investigation of Management and Legal Challenges to Environmental Conservation of Iran's Rivers". Proceedings of Iranian national water congress with focus on clean water, Power and Water University of Technology, Tehran, Iran, 2nd – 3rd March 2011.

14. Danandeh Mehr, A. and Sh. Soltani. 2011, "Introducing and Evaluation of Iran's National Policy for Quantitative Protection of Rivers in Iran". Proceedings of 4th Iran water resources management Conference, Amirkabir University of technology, Tehran, Iran, 3th - 4th May 2011.

13. Yaghoobi, A. Danandeh Mehr, A. and M. M. Vanolia. 2010, "Investigation of the Effect of Tidal Flows on the Floodway and Floodway Fringe Determination at Coastal Rivers". Proceedings of 1st Iranian national congress on costal water resources management, Sari Agricultural Sciences and Natural Resources University, Sari, Iran, 8th - 9th Dec, 2010

12. Danandeh Mehr, A. Sarraf, B. S. and M. R. M. Tabatabai. 2010, "Genetic Programming Application in Stream Flow and Sediment Prediction". Proceedings of 10th Symposium on Stochastic Hydraulics & Fifth International Conference on Water Resources and Environment Research, Quebec City, Canada, 5th - 7th of July 2010

11. Jafari G., Norouzi S. and A. Danandeh Mehr. 2010, "Field Investigation about Performance of Constructed Groins in Ghezelozan River". Proceedings of 8th International River engineering Conference, Shahid Chamran University, Ahvaz, Iran, 26-28 Jan, 2010 (in Farsi).

10. Danandehmehr, A. and Sh. Soltani. 2009. "Application of Artificial Intelligence on Daily Discharge Prediction". Proceedings of 8th Iranian hydraulic Conference, Tehran University, Tehran, Iran, 14th - 15th Dec. 2009

9. Danandeh Mehr, A. 2007, "Flood Control System Optimization Based on Risk Analysis in Floodplain". Proceedings of 7th International River engineering Conference, Shahid Chamran University, Ahvaz, Iran, 13-14 Feb, 2007

8. Danandehmehr, A. 2007, "HEC-HMS Application on Kor River Floods Routing on Mollasadra Dam". Proceedings of 1th hydraulic models in water engineering conference, Islamic Azad University, Marvdasht branch, Marvdasht, Iran, 2007

7. Jahangir, I. and A. Danandehmehr 2007 "Flood Damage Predicting before Flood Event". Invited speaker, Runoff and urban floods management workshop. Shiraz, Iran. 16th-17th Oct.

6. Danandeh Mehr, A., M. M. Vanolia and M. R. M. Tabatabai. 2006. "Benefit-cost Analysis Was Applied to Provide an Explicit Economical Basis for Developing Integrated Floodplain Management Plans" Proceedings of 2nd International Conference on Hydrology and Watershed Management, JNTU, Hyderabad, INDIA 5th – 8th Des.
5. Danandehmehr, A., M. M. Vanolia and M. R. M. Tabatabai. 2005. "Flood Control Structures Optimization in Urban Catchments". Proceedings of 5th Iranian hydraulic conference, Shahid Bahonar University of Kerman, Kerman, Iran, 8th - 10th Nov.
4. Danandehmehr, A. Shishegar, M. and E. Malekabaslou. 2005. "Application of HEC-HMS in Flood Control of Tabriz River". Proceedings of 12th Students conference on civil engineering, Iran University of Science and Technology, Tehran, Iran, 21st - 23rd Dec.
3. Danandehmehr, A. 2004, "A Comparison of Structural Methods Used for the Control of Urban Floods and Selection of Optimal Structure". Proceedings of 11th students' conference on civil engineering, Hormozgan University, Bandar Abbas, Iran.
2. Danandehmehr, A. 2003. "HEC-RAS Application in Flood Damages Measurement". Proceedings of 4th Students seminar on civil engineering, Power and Water University of technology, Tehran, Iran, 2003
1. Danandehmehr, A. 2003. "Evaluation and Measurement of Flood Damages". Proceedings of 10th Civil Engineering Students Conference, Amir Kabir University of technology, Tehran, Iran, 21st - 23rd Oct. 2003

Research interests

- Surface Water Hydrology and Rainfall-Runoff modelling
- Statistical Hydrology and Hydroinformatics
- River Basin Modelling and Flood Hazard Mitigation
- Catchment-Scale Climate Change Impacts Assessment