PERSONAL DATA

Ameneh Mianabadi

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EDUCATION

2018-2020 **Postdoctoral Researcher,**

at Ferdowsi University of Mashhad, Mashhad, Iran.

- **Supervisor :** Prof. K. Davary
- **Project title :** **Climate Change : Environmental Changes and Migration**

2011- 2016 **PhD, Agrometeorology.**

at Ferdowsi University of Mashhad, Mashhad, Iran.

- **Supervisor :** Prof. A. Alizadeh and Dr. S.H. Sanaienejad.
- **PhD Thesis :** **Prediction of Annual Evaporation Change in Dry Region Watersheds Using the Aridity Index (Case Study of Neishaboor Watershed)**
- **GPA:** 18.54 out of 20.0

2015 **Guest Researcher,**

at TU Delft, Faculty of Civil Engineering and Geosciences, Department of Water Resources, Delft, The Netherlands.

- **Supervisor :** Dr. A. M. J. Gerrits-Coenders
- **Research issue :** **A global Budyko Model to Partition Evaporation into Interception and Transpiration**

2004 - 2007 **MSc, Agrometeorology.**

at Ferdowsi University of Mashhad, Mashhad, Iran.

- **Supervisor :** Dr. S.M. Mousavi-Bygi.
- **Master Thesis :** **Identifying the Hazard Prone Areas in Khorasan Razavi Province Based on Climate & Agriculture Variables**.
- **GPA:** 18.49 out of 20.0

2000-2004 **BSc, Water engineering**
at Ferdowsi University of Mashhad, Mashhad, Iran.

- **GPA:** 16.53 out of 20.0

RESEARCH INTERESTS

- Hydrology and Socio-hydrology
- Water Resources Management
- Climate Change
- Uncertainty Analysis
- Remote Sensing

SCIENTIFIC PUBLICATIONS AND PRESENTATIONS

Published Papers

Mianabadi, A., Omidvar, J., Pourreza-Bilondi, M., 2025, "Development of Intensity-Duration-Frequency Curves at Basin Scale using the ERA5 Reanalysis Product", Journal of Drought and Climate Change Research, 2(8), DOI:10.22077/jdcr.2025.8636.1098.

Helali, J., Mohammadi Ghaleni, M., **Mianabadi, A.,** Asadi Oskouei, E., Momenzadeh, H., Haddadi, L., Saboori Noghabi, M., 2024, "Enhancing references evapotranspiration forecasting with teleconnection indices and advanced machine learning techniques", Applied Water Science, 14, 219, DOI:10.1007/s13201-024-02289-x.

Mianabadi, A., Bateni, M.M. & Babaei, M., 2024, "Projection of future non-stationary intensity-duration-frequency curves using the pooled CMIP6 climate models", Natural Hazards, 120, DOI:10.1007/s11069-024-06779-8

Rahimi, M., Mortazavi, M., **Mianabadi, A.,** Debnath, S., 2023, "Evaluation of basil (Ocimum basilicum) accessions under different drought conditions based on yield and physio-biochemical traits", BMC Plant Biology, 23, 523, DOI: 10.1186/s12870-023-04554-8.

Mohamadi, S., **Mianabadi, A.,** Anvari, S., 2023, "Investigating the vegetation's temporal–spatial response to meteorological and hydrogeological drought in drylands", Geoscience Data Journal, 00, 1-19, DOI: 10.1002/gdj3.203

Mianabadi, A., Pourreza-Bilondi, M., 2023, "Toward an analysis of water resources components through the Budyko approach in a large-scale framework, Iran", Applied Water Science, 13, 132, DOI: 10.1007/s13201-023-01934-1.

Mianabadi, A., Davary, K., Mianabadi, H., Kolahi, M., Mostert, E., 2023, "Toward the development of a conceptual framework for Complex interaction between environmental changes and rural-urban migration", Frontiers in Water, 5, DOI: 10.3389/frwa.2023.1142307.

Mianabadi, A., 2023, "Evaluation of Long-Term Satellite-Based Precipitation Products for Developing Intensity-Frequency (IF) Curves of Daily Precipitation", Atmospheric Research, 286, 106667, DOI: 10.1016/j.atmosres.2023.106667.

Mianabadi, A., Salari, Kh., Pourmohamad, Y., 2022, "Drought Monitoring Using the Long-Term CHIRPS Precipitation over Southeastern Iran", Applied Water Science, 12, 183, DOI: 10.1007/s13201-022-01705-4.

Mianabadi, A., Hasheminia, S.M., Derakhshan, H., Davary, K., Hrachowitz, M., 2021, "Estimating the Aquifer's Renewable Water to Mitigate the Challenges of Upcoming Megadrought Events", Water Resources Management, 35, 4927–4942, DOI:10.1007/s11269-021-02980-7.

Mianabadi, A., Davary, K., Kolahi, M., Fisher, J., 2021, "Water/Climate Nexus Environmental Rural-Urban Migration and Coping Strategies", Journal of Environmental Planning and Management, 65 (5), 852–876, DOI:10.1080/09640568.2021.1915259.

Mianabadi, A., Davary, K., Mianabadi, H., Karimi, P., 2020, "International Environmental Conflict Management in Transboundary River Basins", Water Resources Management, 34, 3445–3464, DOI:10.1007/s11269-020-02576-7.

Mianabadi, A., Davary, K., Pourreza-Bilondi, M., Coenders-Gerrits, A. M. J., 2020, "Budyko Framework; toward Non-Steady State Conditions", Journal of Hydrology, 588, DOI:10.1016/j.jhydrol.2020.125089.

Mianabadi, A., Derakhshan, H., Davary, K., Hasheminia, S.M., Hrachowitz, M., 2020, "A Novel Idea for Groundwater Resource Management during Megadrought Events", Water Resources Management, 34, 1743–1755, DOI:10.1007/s11269-020-02525-4.

Mianabadi, A., Coenders-Gerrits, A.M.J., Shirazi, P., Ghahraman, B., Alizadeh, A., 2019, "A Global Budyko Model to Partition Evaporation into Interception and Transpiration", Hydrology and Earth System Sciences, 23, 4983–5000, DOI: 10.5194/hess-23-4983-2019.

Mianabadi, A., Shirazi, P., Ghahraman, B., Coenders-Gerrits, A. M. J., Alizadeh. A., Davary, K., 2019 "Assessment of Short- and Long-Term Memory in Trends of Major Climatic Variables over Iran:1966-2015", Theoretical and Applied Climatology, 135(1-2), 677-691. DOI: 10.1007/s00704-018-2410-z.

Jarkeh, M.R., **Mianabadi, A.**, Mianabadi, H., 2016, "Developing New Scenarios for Water Allocation Negotiations: A Case Study of the Euphrates River Basin", Proceedings of the International Association of Hydrological Sciences (PIAHS), Vol. 374, 9–15. DOI:10.5194/piahs-374-9-2016.

Amiri, E., Abdzad Gohari, A., **Mianabadi, A.**, 2015, "Evaluation of Water Schemes for Peanut, Using CSM-CROPGRO-Peanut Model", Archives of Agronomy and Soil Science, 61(10), 1439-1453. DOI:10.1080/03650340.2015.1017568.

Farid, A., **Mianabadi, A.**, Bannayan, M., Alizadeh, A., 2011, "Lidar Remote Sensing for Forestry and Terrestrial Application", International Journal of Applied Environmental Sciences, 6(1), 99-114.

Mousavi Baygi, M., Ashraf, B., **Mianabadi, A.**, 2010, "The Investigation of Tehran's Heat Island by Using the Surface Ozone and Temperature Data", International Journal of Applied Environmental Sciences, 5(2), 189-200.

Published Papers in Persian with English Abstract

Mianabadi, A., Nazeri Tahroudi, M., Pourreza-Bilondi, M., 2025, "Joint Frequency Analysis of Meteorological Drought Duration and Severity Based on ERA5-Land Reanalysis Database", Journal of Irrigation Sciences and Engineering, Accepted Manuscript, Available Online from 12 May 2025. DOI:10.22055/JISE.2025.48618.2150

Akbari, A., Pourreza-Bilondi, M., Khashei-siuki, A., kalanaki, M., **Mianabadi, A.**, 2024, "Uncertainty analysis of DSSAT plant model parameters in estimating cotton yield using GLUE", Advanced Technologies in Water Efficiency, 4(4), 19-34. DOI:10.22126/atwe.2024.10960.1135

Mianabadi, A., Salajegheh, M., 2024, **"**Projection of the change in the last spring frost and the number of frost days for the pistachio in Kerman province using the CMIP6 climate models**"**, Journal of Climate Change Research, Vol.5, No.18, 67-92. DOI:10.30488/CCR.2024.435000.1194.

Mianabadi, A., Salimifard, M., Salajegheh, M., 2023, "Evaluation of triangle algorithm for estimation of actual evapotranspiration of pistachio in Kerman plain", Advanced Technologies in Water Efficiency, Vol.3, No.4, 94-115. DOI:0.22126/ATWE.2024.10064.1069.

Mianabadi, A., Bateni, M.M. & Babaei, M., 2024, "Assessment of Pooled CMIP6 Climate Models for estimation of Intensity-Frequency of 24-hour precipitation in Iran", Journal of Climate Change Research, Vol.4, No.16, 1-20. Doi:10.30488/CCR.2023.421019.1166.

Mianabadi, A., Bateni, M.M., Mohamadi, S., 2023, "Projection of Change in the Distribution of Precipitation and Temperature Using Bias-Corrected Simulations of CMIP6 Climate Models (Case Study: Kerman Synoptic Station)', Journal of Climate Change Research, Vol.4, No.14, 65-84. DOI:10.30488/CCR.2023.399780.1139.

Mianabadi, A., Davary, K., 2023, "Investigation of Changes in The Amount and Distribution of Precipitation and Temperature in Iran and Their Effects on Extreme Events", Water and Sustainable Development, Vol.10, No.2, 13-26. DOI:10.22067/jwsd.v10i2.2301-1203.

Derakhshan, H., **Mianabadi, A.,** Mosaedi, A., Davary, K., 2023, "A Review of the Evolution Aquifer Yield and Role of These Concepts in Groundwater Management", Iran-Water Resources Research, Vol.19, 1-22. DOR: 20.1001.1.17352347.1402.19.3.1.0.

Yazdanpanah Gharaei, F., Pourreza Bilondi, M., **Mianabadi, A.,** Babaei, M., & Imani Amirabad, S., 2023, Evaluation of rainfall simulation using WRF/WRF-Hydro model (case study: Abol-Abbas basin**)**, Advanced Technologies in Water Efficiency, Vol.2, No.4, 1-14. DOI: 10.22126/ATWE.2023.8482.1031

Mianabadi, A., Salari, Kh., Pourmohamad, Y., 2022, "Evaluation of CHIRPS Satellite Product for Trend Analysis of Precipitation in the Southeast of Iran", Iranian Journal of Irrigation and Drainage, Vol. 16, No. 3, 670-684.

Ziaye Shendershami, S., **Mianabadi, A.,** Sadeghi, S.M.M., 2022, "Performance of Revised Gash Model for Estimating Rainfall Interception in a Robinia pseudoacacia plantation during the leafed and leafless periods", Journal of Environmental Sciences and Technology, Vol. 23, No. 10, 61-71.

Mianabadi, A., Davary, K., 2020, "Disambiguating Basic Concepts in Water Management: Adaptation to Water Scarcity"**,** Journal of Water and Sustainable Development**,** Vol. 7, No. 1, 61-70.

Mianabadi, A., Jarkeh, M.R., Mianabadi, H., 2019, "Socio-hydrology", Socio-Cultural Strategies Journal, Vol. 7, No. 27, 47-78.

Mianabadi, A., Mianabadi, H., Alizadeh, A., 2017, "A Novel Attitude on Classical Hydrology", Iranian Journal of Irrigation and Drainage, Vol. 11, No. 4, 539-555.

Mianabadi, A., Alizadeh, A., Sanaeinejad, H., Ghahraman, B., Davary, K., 2016, "On the Assessment of the SEBAL Algorithm to Estimate Actual Evapotranspiration in Neyshaboor-Rokh Watershed Using SWAT Model", Iranian Journal of Water Research in Agriculture, Vol. 30, No. 4, 525-541.

Mianabadi, A., Alizadeh, A., Sanaeinejad, H., Ghahraman, B., Davary, K., 2016, "Prediction of Annual Evaporation Change in Dry Regions Using the Budyko-type framework (Case Study of Neishaboor-Rokh Watershed)", Iranian Journal of Irrigation and Drainage, Vol. 10, No. 3, 398-411.

Mianabadi, A., Alizadeh, A., Sanaeinejad, H., Bannayan, M., Faridhosseini, A., 2015, "The Statistic Assessment of CMORPH Model Output for Precipitation Estimation Over the Northeast of Iran (Case Study: Khurasan Shomali Province)", Journal of Water and Soil, Vol. 27, No.5, 919-927.

Mianabadi, A., Eghtedari, M., Faridhosseini, A., 2012, "Calibration of Two Solar Radiation Models and Development of Two One-Parametric Solar Radiation Models Based on the Cloudiness in Mashhad, Iran", Journal of Climatical researches, Vol. 3, No. 11, 53-64.

Mousavi Baygi, M., Ashraf, B., **Mianabadi, A.**, 2011, "The Assessment of Four Reference Crop Evapotranspiration Models in a Semi-Arid Climate of Iran to Find the Best Radiation Model", Journal of Water and Soil Conservation, Vol. 17, No. 4, 87-106.

Mianabadi, A., Mousavi Baygi, M., Eghtedari, M., 2010, "Estimation of Hershfield Coefficient for Khaf and Kalshour Basins in Khurasan Razavi Province", Journal of Irrigation Sciences and Engineering, Vol. 33, No. 1, 93-99.

Mousavi Baygi, M., Ashraf, B., **Mianabadi, A.**, 2010, "The Investigation of Different Models of Estimating Solar Radiation to Recommend the Suitable Model in a Semi-arid Climate", Journal of Water and Soil, Vol. 24, No. 4, 836-844.

Mianabadi, A., Mousavi Baygi, M., Sanaeinejad, H., Nezami, A., 2009, "Investigating the Heat Stress Affecting on Crops in Khorasan Razavi Province", Journal of Water and Soil, Vol. 23, No. 2, 104-114.

Mianabadi, A., Mousavi Baygi, M., Sanaeinejad, H., Nezami, A., 2009, "Investigating the Early Autumn, Late Spring and Winter Freezing in Khorasan Razavi Province", Journal of Water and Soil, Vol. 23, No. 1, 79-90.

Presentations

Jarkeh, M.R., Mohammadi, E., **Mianabadi, A.,** 2022, "Application of WA+ framework for sustainable development in the transboundary region, case study: Sistan, Iran in new hydrological condition", Water Accounting Plus (WA+) Symposium, 12-13 July 2022, Delft, The Netherlands.

Mianabadi, A., Jarkeh, M.R., 2022, "Socio-Hydrology: An Approach to Cooperation in a Transboundary River Basin", Frontier in Hydrology Meeting, 19-24 June 2022, San Juan, Puerto Rico.

Mianabadi, A., Alizadeh, A., Sanaeinejad, S.H., Ghahraman, B., Davary, K., Shahedi, M., Talebi, F., 2017, "Uncertainty analysis of a three-parameter Budyko-type equation at annual and monthly time scales", EGU Conference 2017, 23-28 April 2017, Vienna, Austria.

Jarkeh, M.R., **Mianabadi, A.**, Mianabadi, H., 2015, "Conflict resolution of water resources allocation in the Euphrates basin using Bankruptcy Method", International Conference on Water Resources and Seasonal Prediction, 13 – 16 October 2015, Koblenz, Germany

Mianabadi, A., Alizadeh, A., Sanaeinejad, S.H., Ghahraman, B., Davary, K., Coenders-Gerrits, A.M.J., 2015, "The impact of irrigation on Budyko framework hypothesis in Neyshaboor watershed, Iran", EGU Conference 2015, 12-17 April 2015, Vienna, Austria.

Mianabadi, A., Alizadeh, A., Sanaeinejad, S.H., Ghahraman, B., Davary, K., Coenders-Gerrits, A.M.J., 2015, "Introducing a framework to improve estimation of actual evapotranspiration using MODIS images with SEBAL algorithm", EGU Conference 2015, 12-17 April 2015, Vienna, Austria.

Mianabadi, A., Jafarzadeh, A., Pourreza-Bilondi, M., Anvari, S., 2025, "Evaluation of M3SE ensemble combining techniques in improving estimation of satellite precipitation products (Case study: Shiraz station)", 1st National Conference on Hydrology and Water Resources of Iran, 11-12 February 2025, Ahwaz, Iran.

Eqtedari, M., Bandegani, M., **Mianabadi, A.**, 2024, "The Application of the Light Use Efficiency Model in the Estimation of Wheat Grain Yield in Sari and Behshahr region using Satellite Images", 18th Iranian National & 4th International Crop Sciences Congress, 10-12 September 2024, Mashhad, Iran.

Dehghan, H., **Mianabadi, A.**, 2024, "Assessment of climate change impact on the net irrigation requirement of sunflower in Kashmer station using CMIP6 climate models", 18th Iranian National & 4th International Crop Sciences Congress, 10-12 September 2024, Mashhad, Iran.

Derakhshan, H., **Mianabadi, A.,** Davary, K., 2019, "Drought Risk Management", 3rd National Conference on Drought Effects and Management Solution, 27 February 2019, Khorramabad, Iran.

Jarkeh, M.R., **Mianabadi, A.**, Mianabadi, H., Tavakkoli, A., 2015, "Equitable water allocation of Euphrates River"; National congress on Iran's irrigation and drainage, 13-14 May 2015, Mashhad, Iran.

Mianabadi, A., Alizadeh, A., Sanaeinejad, H., Bannayan, M., 2014, "Bayesian Assessment of Parameter Uncertainty in a Very Simple Model (VSM) for Winter Wheat in Mashhad Area, Iran", National Agriculture Conference, 13 October 2014, Tehran, Iran.

Mianabadi, A., Mianabadi, H., 2014, "Application of bankruptcy theory in Transboundary water resources reallocation; Case study of Lake Urmia"; 5th National Conference on Water Resources Management, 18-19 February 2014, Tehran, Iran.

Mianabadi, A., 2014, "Bayesian Calibration of FAO-56 radiation equations using Metropolis uncertainty algorithm (Case Study: Mashhad Station)", 5th National Conference on Water Resources Management, 18-19 February 2014, Tehran, Iran.

Mousavi Baygi, M., **Mianabadi, A.**, Ghazanfari, S., 2004, "Introducing the Rainstar 3-d Model to calculate the rainfall increasing in mountainous area (Case study of Mashhad)", 1st National Conference on Water Resources Management, 17-18 November 2004, Tehran, Iran.

TEACHING EXPERIENCE

Organization	Description	From	To
Graduate University of Advanced Technology	• Hydroclimatology	2022	2024
Payamnor University of Neyshaboor	• Meteorology, Hydrology, Irrigation, Technical Drawing, Geodesy and Mapping	2009	2011
Payamnor University of Mashhad	• Irrigation	2010	2010
Hakim Sabzevari University of Sabzevar	• Pedology (Soil studies)	2010	2010
Marefat Highschool, Sabzevar, Iran	• Agriculture courses	2009	2010

AWARDS

- Scholarship from Ministry of Science, Research and Technology of Iran, 2011, PhD at Ferdowsi University of Mashhad.
- Scholarship from Ministry of Science, Research and Technology of Iran, 2015, Guest researcher at Technology University of Delft (TU Delft), The Netherlands.
- First grade on PhD entrance exam, 2011
- Second grade in PhD courses (18.54 out of 20, excluding dissertation)
- First grade in MSc courses (18.49 out of 20)
- Third grade in BSc courses (16.53 out of 20)

COMPUTER SKILLS

General Software (Office);

Programing software (MATLAB, R)

Remote sensing software (ERDAS, ENVI)

GIS software (ArcGIS)

Reference manager software (Mendeley)

ATTENDANCE IN TRAINING WORKSHOPS

Lund University: E-learning course on “Remote Sensing of Environmental Parameters”.

Ferdowsi University of Mashhad, Mashhad, Iran: Workshop on Atmospheric Satellites.

Ferdowsi University of Mashhad, Mashhad, Iran: Workshop on New Topics in Water Engineering.

EGU general assembly 2015, Vienna, Austria: Workshop on How to Teach Hydrology

PROFESSIONAL SOCIETY

IAEO: Iranian Agricultural Engineering Organization

REFERENCES

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