Saman Maroufpoor

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Education:

- Ph.D. Water Resources Planning and Management, University of Tehran, Iran, 2021.
- M. Sc. Water Resources Engineering, University of Tabriz, Iran, 2017.
- Bsc. Water Engineering, University of Tabriz, Iran, 2015.

Working & Research Experiences

- July 2024 to Present, Research Fellow, School of Civil and Environmental Engineering, Nanyang Technological University, Singapore
 - Temporal-Spatial Impact Analysis of Climate Changes on Renewable Energy and Load Demands
- September 2022 to December 2023, Researcher at University of Kurdistan, Sanandaj, Iran
 Artificial intelligence modeling in irrigation and agriculture management
- October 2021 to August 2022, Remote researcher at Tsinghua university, Beijing, China
 Prediction and modeling of yield and evapotranspiration of agricultural crops

Research Interests

- Modeling of hydrological variables
- Extreme events and climate change
- Machine learning and deep learning

Publications

- **Maroufpoor, Saman**, Jalal Shiri, and Eisa Maroufpoor. "Modeling the sprinkler water distribution uniformity by data-driven methods based on effective variables." Agricultural water management 215 (2019): 63-73. <u>https://doi.org/10.1016/j.agwat.2019.01.008</u>
- **Maroufpoor, Saman**, Hadi Sanikhani, Ozgur Kisi, Ravinesh C. Deo, and Zaher Mundher Yaseen. "Long-term modelling of wind speeds using six different heuristic artificial intelligence approaches." International Journal of Climatology 39, no. 8 (2019): 3543-3557. <u>https://doi.org/10.1002/joc.6037</u>
- Maroufpoor, Saman, Eisa Maroufpoor, Omid Bozorg-Haddad, Jalal Shiri, and Zaher Mundher Yaseen. "Soil moisture simulation using hybrid artificial intelligent model: Hybridization of adaptive neuro fuzzy inference system with grey wolf optimizer algorithm." Journal of Hydrology 575 (2019): 544-556. https://doi.org/10.1016/j.jhydrol.2019.05.045
- **Maroufpoor, Saman**, Eisa Maroufpoor, and Mohammad Khaledi. "Effect of farmers' management on movable sprinkler solid-set systems." Agricultural Water Management 223 (2019): 105691. <u>https://doi.org/10.1016/j.agwat.2019.105691</u>

- **Maroufpoor, Saman**, Omid Bozorg-Haddad, and Eisa Maroufpoor. "Reference evapotranspiration estimating based on optimal input combination and hybrid artificial intelligent model: Hybridization of artificial neural network with grey wolf optimizer algorithm." Journal of Hydrology 588 (2020): 125060. <u>https://doi.org/10.1016/j.jhydrol.2020.125060</u>
- **Maroufpoor, Saman**, Mohammadnabi Jalali, Saman Nikmehr, Naser Shiri, Jalal Shiri, and Eisa Maroufpoor. "Modeling groundwater quality by using hybrid intelligent and geostatistical methods." Environmental Science and Pollution Research 27, no. 22 (2020): 28183-28197. <u>https://doi.org/10.1007/s11356-020-09188-z</u>
- **Maroufpoor, Saman**, Ahmad Fakheri-Fard, and Jalal Shiri. "Study of the spatial distribution of groundwater quality using soft computing and geostatistical models." ISH Journal of Hydraulic Engineering 25.2 (2019): 232-238. https://doi.org/10.1080/09715010.2017.1408036
- Maroufpoor, Saman, Omid Bozorg-Haddad, Eisa Maroufpoor, P. Winnie Gerbens-Leenes, Hugo A. Loáiciga, Dragan Savic, and Vijay P. Singh. "Optimal virtual water flows for improved food security in water-scarce countries." Scientific reports 11, no. 1 (2021): 1-18. <u>https://doi.org/10.1038/s41598-021-00500-6</u>
- **Maroufpoor, Saman**, Saad Sh Sammen, Nadhir Alansari, S. I. Abba, Anurag Malik, Shamsuddin Shahid, Ali Mokhtar, and Eisa Maroufpoor. "A novel hybridized neuro-fuzzy model with an optimal input combination for dissolved oxygen estimation." Frontiers in Environmental Science (2022): 1210. <u>https://doi.org/10.3389/fenvs.2022.929707</u>
- Mahmoudi, Neda, Arash Majidi, Mehdi Jamei, Mohammadnabi Jalali, Saman Maroufpoor (Corresponding author), Jalal Shiri, and Zaher Mundher Yaseen. "Mutating fuzzy logic model with various rigorous meta-heuristic algorithms for soil moisture content estimation." Agricultural Water Management 261 (2022): 107342. <u>https://doi.org/10.1016/j.agwat.2021.107342</u>
- Zhou, Jincheng, Dan Wang, Sayna Nezhad kheirollah, Saman Maroufpoor (Corresponding author), and Shahab S. Band. "Sensitivity analysis of wheat yield based on growing degree days in different growth stages: Application of machine learning approach enhanced by grey systems theory." Computers and Electronics in Agriculture 210 (2023): 107876. <u>https://doi.org/10.1016/j.compag.2023.107876</u>
- Jamei, Mehdi, **Saman Maroufpoor**, Younes Aminpour, Masoud Karbasi, Anurag Malik, and Bakhtiar Karimi. "Developing hybrid data-intelligent method using Boruta-random forest optimizer for simulation of nitrate distribution pattern." Agricultural Water Management 270 (2022): 107715. <u>https://doi.org/10.1016/j.agwat.2022.107715</u>
- Jamei, Mehdi, Ahmed Elbeltagi, Saman Maroufpoor, Masoud Karbasi, Mozhdeh Jamei, Mohammadnabi Jalali, and Negin Najafzadeh. "Combined Terrestrial Evapotranspiration Index prediction using a hybrid artificial intelligence paradigm integrated with relief algorithm-based feature selection." Computers and Electronics in Agriculture 193 (2022): 106687. <u>https://doi.org/10.1016/j.compag.2022.106687</u>
- Mokhtar, Ali, Ahmed Elbeltagi, **Saman Maroufpoor**, Nasrin Azad, Hongming He, Karam Alsafadi, Yeboah Gyasi-Agyei, and Wenming He. "Estimation of the rice water footprint based on machine learning algorithms." Computers and Electronics in Agriculture 191 (2021): 106501. <u>https://doi.org/10.1016/j.compag.2021.106501</u>
- Babaee, Maryam, **Saman Maroufpoor**, Mohammadnabi Jalali, Manizhe Zarei, and Ahmed Elbeltagi. "Artificial intelligence approach to estimating rice yield." Irrigation and Drainage 70, no. 4 (2021): 732-742. <u>https://doi.org/10.1002/ird.2566</u>
- Elbeltagi, Ahmed, Jinsong Deng, Ke Wang, Anurag Malik, and **Saman Maroufpoor**. "Modeling long-term dynamics of crop evapotranspiration using deep learning in a semiarid environment." Agricultural Water Management 241 (2020): 106334. <u>https://doi.org/10.1016/j.agwat.2020.106334</u>

- Seyedzadeh, Amin, Saman Maroufpoor, Eisa Maroufpoor, Jalal Shiri, Omid Bozorg-Haddad, and Farnoosh Gavazi. "Artificial intelligence approach to estimate discharge of drip tape irrigation based on temperature and pressure." Agricultural Water Management 228 (2020): 105905. <u>https://doi.org/10.1016/j.agwat.2019.105905</u>
- **Maroufpoor, Saman**, and Jalal Shiri. "Reply to discussion of 'Study of the spatial distribution of groundwater quality using soft computing and geostatistical models' by Reza Barati." ISH Journal of Hydraulic Engineering 26, no. 3 (2020): 246-246. https://doi.org/10.1080/09715010.2018.1474389
- Yavari, Shahla, **Saman Maroufpoor**, and Jalal Shiri. "Modeling soil erosion by datadriven methods using limited input variables." Hydrology Research 49, no. 5 (2018): 1349-1362. <u>https://doi.org/10.2166/nh.2017.041</u>