

Omolbani Mohammadrezapour

Niko apartment, Golshahr street, between Golshahr 3 and 5, Gorgan, Iran

RG: <https://www.researchgate.net/profile/Omolbani-Mohammadrezapour>

Email: omohammadrezapour@gmail.com

Tel: +98(911) 380-6033

• Personal information:

First name; Omolbani Mohammadrezapour

Address: Associated professor in Gorgan University of Agricultural Sciences and Natural resources. .

Telephone: 00989113806033

E-mail: omohammadrezapour@gmail.com mohammadrezapour@yahoo.com,

Mohammadrezapour@gau.ac.ir

Nationality: Iran

Date of birth: 16/9/1980

Gender: female

■ Education

2007-
2011

Ph.D. in Agricultural Engineering-Water Resources Engineering

Faculty of Engineering, Department Of Water Engineering, University of Putra Malaysia, Malaysia.

2002-
2004

M.Sc. in Agricultural Engineering-Hydraulic Structur Engineering

Faculty of Agriculyural, Department Of Water Engineering, University of Mazandaran, Sari, Iran

1998-
2001

B.Sc. in Agriculture Engineering- water

Faculty of Agriculture, Department of Water Engineering, University of Mazandaran, Sari, Iran

Teaching Experiences as a Lecturer

Technical skills from 2012 until 2020 in University of Zabol and Gorgan Univerity of Agricultural Sciences and Natural resources from April 2020 until now : Surface Hydrology, System Dynamic Analysis, water resource engineering, Optimization in water resource, Groundwater pollution, Soil Mechanics, Fluid Mechanics, Technical drawing

Supervisor:

Supervised of 2 Ph.D. students, Co- supervisor of 3 Ph.D. student and 15 master students.

■ Research Interests

- **Water Resources Management:** Applied New Simulation-Optimization Algorithms, Data-Mining and etc.
- **Hydrology (Runoff and Evaporation Simulation/Prediction):** Machine Learning (Support Vector Machine, Genetic Programming, Artificial Neural Network) and etc.
- **Climate Change:** Climate change effect on crop, runoff and water resources and Resilience, Uncertainly and Sustainability study.
- Virtual water trade and water footprint
- Water accounting
- And anything new.

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■ International Publications

- 2022 “Runoff Simulation under Future Climate Change Conditions: Performance Comparison of Data-Mining algorithms and conceptual models.” *Water Resources Management*. Link: <https://doi.org/10.1007/s11269-022-0068-6>.
Authors: Icen Yoosefdoost, Abbas Khashei-Siuki, Hossein Tabari and Omolbani Mohammadrezapour
- 2022 “Evaluation of SCS model for Flood characteristic prediction in an ungauged catchment considering effects of excess rainfall and base flow separation”
Earth Syst. Sci. (2022) 131:11. link: <https://doi.org/10.1007/s12040-021-01756-2>
Authors: Erfan Bahrami, Meysam Salarijazi, Omolbani Mohammadrezapour, Parviz Haghghatjou
- 2022 “Comparison of parameter estimation methods of the two-parameter Weibull distribution”
Sustainable Water Resources Management (2022) 8:112. Link: <https://doi.org/10.1007/s40899-022-00709-x>
Authors: Parviz Haghghatjou, Omolbani Mohammadrezapour, Seyed Hassan Mirhashem
-
- 2021 “Effect of utilization of treated wastewater and seawater with Clinoptilolite Zeolite on yield and yield components of sorghum.” *Agricultural Water Management*, link: <https://doi.org/10.1016/j.agwat.2020.106117> - ScienceDirect
Authors: Fakhroddin GhassemiSahebi, Omolbani Mohammadrezapour, Masoomeh Delbari, Abbas KhasheiSiuki, Henk Ritzema, Ali Cherati
-
- 2020 “Fuzzy c-means and K-means clustering with genetic algorithm for identification of homogeneous regions of Groundwater quality.” *Neural Computing and Applications* volume 32, pages3763–3775 (2020).
<https://link.springer.com/article/10.1007/s00521-018-3768-7>
Authors: Mohammadrezapour. O., Ozgur Kisi, Fariba Pourahmad.
-
- 2019 “Cuckoo Optimization Algorithm in Optimal Water Allocation and Crop Planning under Various Weather Conditions (Case Study: Qazvin Plain, Iran).” *Neural Computing and Applications*, August, 1–14. Link:
Authors: Omolbani Mohammadrezapour, Icen Yoosefdoost, and Mahboube Ebrahimi
- 2019 “Effect of Base Flow and Rainfall Excess Separation on Runoff Hydrograph Estimation Using Gamma Model.” DOI:10.1007/s12205-019-0591-3
Authors: Erfan Bahrami, Omolbani Mohammadrezapour, Meysam Salarijazi, Parviz Haghghatjou.
-
- 2018 “Comparison of SVM, ANFIS and GEP in modeling monthly potential evapotranspiration in an arid region (Case study:Sistan and Baluchestan Province, Iran).”
Authors: Mohammadrezapour,O., Jamshid Piri and Ozgur Kisi
- 2018 “Evolutionary support vector machine for evapotranspiration estimation (case study: Haji Abad region, Hormozgan province).” doi:10.5004/dwt.2018.22249.
Authors: Mohammadrezapoura, O., Abolfath Moradi, Ozgur Kisi, Salman Sharifazari
-
- 2017 “Using Fe Magnetic Nanoparticles for Reducing Evaporation from Water Surface in Small Scale. *Journal of Desalination and Water Treatment*.” Link: <http://dx.doi.org/10.5004/dwt.2017.20178>
Authors: Mohammadrezaro, O. Nahid Zarindast, Noshin Mir, Amir Ahmad Dehghani.
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- 2014 "Analysis and Evaluation of Tabu Search Algorithm In Water Resources Management." Indian Journal of Scientific Research. Vol, 8 (10): 1830-1838.
- Authors: Arash Yoosefdoost, Icen Yoosefdoost, Omolbani Mohammadrezapour, Nahid Zarindast, and Kyvan Davari.
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- 2012 "Comparision of ant colony optimization and genetic algorithm models for identifying the relation between flow discharge and suspended sediment load (Gorgan River - Iran) ". Scientific Research and Essays Vol. 7(42), p. 3584-3604, 31 October, 2012 Available online at <http://www.academicjournals.org/SRE> DOI: 10.5897/SRE11.264
- Authors: Omolbani Mohamad Reza Pour1 *, Lee Teang Shui2 and Amir Ahmad Dehghani
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- 2010 " Review of Ant Colony Optimization Model for Suspended Sediment Estimation." Australian Journal of Basic and Applied Sciences. 4(7): 2099-2108.
- Authors: Mohammadrezapour, O., Lee Teang shui, Amir Ahmad Dehghani.
- 2010 "Review of Artificial Neural Network Model for Suspended Sediment Estimation. " Australian Journal of Basic and Applied Sciences, 4(8): 3347-3353.
- Authors: Mohammadrezapour, O., Lee Teang shui, Amir Ahmad Dehghani.
- 2010 "Review of Genetic Algorithm Model for Suspended Sediment Estimation. " Australian Journal of Basic and Applied Sciences, 4(8): 3354-3359, 2010.
- Authors: Mohammadrezapour, O., Lee Teang shui, Amir Ahmad Dehghani.
- 2010 "Review of Genetic Programming Model for Suspended Sediment Estimation", Australian Journal of Basic and Applied Sciences ". Australian Journal of Basic and Applied Sciences, 4(11): 5663-5667, 2010. ISSN 1911-8178.
- Authors: Mohammadrezapour, O., Lee Teang shui, Amir Ahmad Dehghani
- **Publications in Progress**
- 2022 "Optimization of Crop Cultivation Area Using Grasshopper Algorithm under Virtual Water Perspectives; Golestan Province, Iran. " Revised in Journal of Sustainable Water Resources Management (SWAM)
-
- 2022 "Reservoir Operation Management with New Multi-Objective (MOEPO) and Metaheuristic (EPO) Algorithms." Water (MDPI).
-

Publications in Persian Journals:

- Mohammadrezapour. O., Z Mosavi Rasteger (2022). Comparison of Linear Programming Model and Particle Swarm Optimization Algorithm in Optimization of Reservoir Rule Curves used Hedging Policy, Journal of water and Soil science. (in Persian).
- Icen Yoosefdoost, Abbas Khashei-Siuki, Hossein Tabari and Omolbani Mohammadrezapour (2022). Evaluating Performance of Four Statistical Downscaling Models (SDSM) of Precipitation and Temperature Data under the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) Scenarios. Journal of

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- climate research. Vol 12 (45). Link: https://clima.irimo.ir/article_132205.html
- E. Mohamadi, S.A. Haghayeghi Moghadam, O. mohammadrezapour, P. Haghightaju (2021). Estimation of Virtual Water Content of Red Meat in Light and Heavy Livestock in Khorasan Razavi province. Iranian Journal of Irrigation and Drainage. 4(15).967-979.
 - E. Mohamadi , O. Mohammadrezapour, S. A. Haghayeghi-Moghadam and P. Haghightaju (2021). Estimation o the Virtual Water Content of Some Livestock Products (Milk and Meat) in Khorasan Razavi Provinc. Irrigation and Drainage Structures Engineering Research/Vol.22/No.84/ Autumn 2021/P:105-120. (In Persian).
 - Atefe Afshar ,Parviz Haghightaju ,Fateme Karandish, omolbani mohammadrezapour,Shapour Kouhestani. The Effect of Deficit Irrigation on Yield and Water Use Efficiency of Several Main Crops in Jiroft. (2020). Iranian Journal of Soil and Water Recourses. (In Persian).
 - Ehsan Mohammadi , Masoomeh Delbari , Behrouz abolpour , Peyman Afrasiab , Omolbani Mohammadrezapour (2020). Investigating the Vague Factors in Water Allocation in Irrigation District of Sistan Dam. Journal of Irrigation and water engineering. Vol 10 (39).
 - Omolbani Mohammadrezapour, Meysam Amiri , Mahboube Ebrahimi, Amin Amiri Rakan. (2019). Regional Drought Assessment based on Principle Component Analysis and GIS in Golestan Province. Journal of water and Irrigation Engineering. Vol (9):35. (In Persian)
 - F. Ghassemi Sahebi, O. Mohammadrezapour , M. Delbari, A. KhasheiSiuki, and A. Cherati (2019) Effect of Using Unconventional Waters and Zeolite on Yield and Water Use Efficiency of Sorghum in Mazandaran. Journal of Water Research in Agriculture (Soil and Water Sci.) Vol. 33, No.2.
 - E Moinaldini , O Mohamad Reza Pour , MJ Zeynali. (2018). Application of Imperialist Competitive Algorithm in Optimizations of Pipe Diameters for Urban Water Network (Case study: Shahrdari town, Kerman). Journal of water and soil science. Vol 28(2).link: https://water-soil.tabrizu.ac.ir/article_7822.html?lang=en.
 - F. GhassemiSahebi , O. Mohammadrezapour , M. Delbari , A. KhasheiSiuki , and A. Cherati (2018). Investigation of Sorghum Yield Qualitative Changes under Using Unconventional Waters and Soil Natural Modifier. Iranian Journal of Irrigation and Drainage No. 2, Vol. 13, Agu.-Sept. 2019, p. 801-81.
 - O. Mohammadrezapour and M. J. Zeynali (2018). Comparison of Meta- Heuristic Algorithms in the Optimal Operation of Multi – Reservoir (A Case Study: Golestan and Voshmgir Dams). J. Water and Soil Sci. (Sci. & Technol. Agric. & Natur. Resour.) Vol. 22, No. 1, Spiring 2018, Isf. Univ. Technol., Isf., Iran.
 - Erfan Bahrami , Omolbani Mohammadrezapour, Maryam Safavi gerdini , Morteza Mohamadi sedigh , Meysam Salarijazi (2018). Geostatistical Assessment of spatial and temporal variations of ground water quality parameters in Qorveh and Dehgolan South Plain. Journal of Irrigation and water engineering. Vol 9(33).
 - Parviz Haghightaju , Zahra Muhammad Zadeh Shahroudi and Omolbanin Mohammad Reza Pour (2017) Comparison of gene expression programming (GEP) and neuro-fuzzy methods for estimation of pan evaporation (case study: south Khorasan province). Journal of water and soil resources conservation. Vol 6(4).

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- Mousavi Rastegar Zohrehsadat, Mohammadrezapour Omolbani*, Bozorg Haddad Omid, Ebrahimi Mahboubeh (2017) A Comparison Of Hedging Policy Using Metaheuristic Algorithm And Standard Operation Policy In Optimal Operation Of Voshmgir Reservoir Conditions Dam In Drought. Iranian Journal of soil and water research, Vol 48(2). <https://www.sid.ir/en/journal/ViewPaper.aspx?ID=650646>
 - Icen Yoosefdoost, and Omolbani Mohammadrezapour , Applying Genetic Algorithms in Determining Optimal Cropping Pattern in Different Weather Conditions in Qazvin Plain.” (2016). Journal of Water Research in Agriculture 30.3 (3): 317–31.
 - Malmir, m., Mohammadrezapour, O., Sharif Azari, S. (2016) The effect of climate change on stream flow used Statistical downscaling of HADCM3 model and Artificial Neural Networks. J. of Water and Soil Conservation, Vol. 23(3).
 - M.J. Zeynali , O. Mohamad Reza Pour and F. Frooghi (2016). Comparison of imperialist competitive algorithm (ICA) and ant colony algorithm (ACO) for optimizing exploitation of Doroudzan reservoir with application of chain constraints approach. J. of Water and Soil Conservation, Vol. 22(6).
 - lakzianpour, H., Mohammadrezapour, O., Malmir, M (2016). Evaluation of Effects of Climate Change on Nazloochoaei River Runoff in Catchment Area of Uremia Lake. Geography and Development Iranian Journal . (In Persian).
 - E Moinaldini , O Mohamad Reza Pour , MJ Zeynali. (2016). Optimization of water network distribution using fast messy genetic and firefly algorithms in Relopt Model (Case study: Shahrdari Town, Kerman). J. of Water and Soil Conservation, Vol. 23(4).
 - Malmir, m., Mohammadrezapour, O., Sharif Azari, S. (2015) Evaluation of Climate Change Impacts on Agricultural Water Allocation in Qara Su Watershed, Using WEAP. Irrigation & Water Engineering. (In Persian).
 - Omolbani mohammad reza pour , Parviz Nour jou , Mohammad Javad Zeynali (2015) Compression of Genetic Algorithm and Particle Swarm Algorithm models for Optimizing Coefficients of Sediment Rating Curve in estimation of Suspended Sediment in Sistan River ;;Case Study Kohak station. Journal of Irrigation and water engineering. Vol6 (22).
 - Dehghan, Z., Delbari, M., Mohammadrezapour, O. (2015) Planning water resources allocation under management scenarios in the Gorgan river basin. Water and Soil Science. (In Persian).
 - Masoud Mohammad Ebrahim, Mohammadrezapour, O., Akbarzadeh seghaleh, H. (2015). Evaluating SEBES Model to Estimate Actual Evapotranspiration using MODIS Sensor Data in Regional Scale (Case Study: Sistan Plain).Journal of Eco-Hydrology. 10.22059/ije.2017.63243. (in Persian)
 - Sadeghi Marasht, M., Haghightajuo, P., Mohamadrezapour, O., Jafari Bibalan, B. (2015). An Estimation of Transferable Volume of Water from Haraz Basin to the East Mazandaran and Golestan Provinces Using RIBASIM Model. International Bulletin of Water Resources & Development. Vol3. No. 3. Pp: 58-67.
 - M.J. Zeynali , O. Mohamad Reza Pour , F. Frooghi (2015) Using Firefly Algorithm for Optimizing Operation of Doroudzan Reservoir. Journal of Irrigation and Water Engineering. Vol6(21).
 - Omolani Mohammad Reza Pour , Mohamad Javad Zeynali (2015)Application of an

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Max-Min Ant System Algorithm for Optimal Operation of Multi – Reservoirs (Case study: Golestan and Voshmgir Reservoir Dams). International Journal of Agriculture and Crop Sciences. Available online at www.ijagcs.com. IJACS/2015/8-1/27-33.

- MJ Zeynali, O Mohammad Reza Pour , F Frooghi (2015). Evaluation of Particle Swarm, Genetic and Continuous Ant Colony Algorithms In Optimal Operation of Doroodzan Dam Reservoir. Journal of water and soil Science. Vol 25 (3).
- Zaynab Pournoori, Omolbani Mohammadrezapour , Reza Dehghani , Fatemeh Kar Andish (2014). An Application of ANFIS for Estimating River Flows: A Case Study of Marboreh River, Lorestan Province, Iran. Journal of International Bulletin of Water Resources & Development. Vol. (II)– No. (04)- S.N. (07)- Autumn 2014 13th Article– P. 142-150.

■ Book

2020

- “META-HEURISTIC ALGORITHMS AND IT'S APPLICATION IN WATER RESOURCES MANAGEMANT,(2019). published in Birjand university.

Authors: Mohammad Javad Zeynali, Abolfazl Akbarpour, Omolbani Mohammadrezapour

Patent

2016

Production of material containing magnetic nanoparticles to reduce Reservoir water evaporation

Projects:

- Omolbani Mohammadrezapour, Mahsa Malmir (2017). Assessing the impact of climate change on optimal water allocation scenarios in the Qarasu river basin with the WEAP model. Kermanshah Regional Water Company
- Omolbani Mohammadrezapour, Meysam Salarigazi (2022) Modeling the design of underground drainage system with the aim of achieving the lowest operating costs in sustainable conditions. Agricultural Jihad Organization.

Technical Experience and Skills

- Agriculture and Water Management Software: WEAP, Hec-HMS, NeuroSolutions , NETWAT, CropWat, , GeneXproTools, GIS
- Hydrologic& Hydraulics and Network Modeling: WaterGEMS
- Programming: python
- Statistical Software& Climate Change down scaler models: LARS, SDSM
- Machine learning & Optimization Algorithms: GeneXproTools, SVM and ANN& PSO, GA, EPO, SPO, COA, MOGP, MOEPO, MOSPO
- Other : Microsoft Office Word/PowerPoint/Excel

■ References

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[Tel: +98\(911\) 380-6033](tel:+98(911)380-6033)

Prof. Amir Ahmad Dehghani

Professor, Department of Water Engineering, Faculty of water and soil, Gorgan University of Agricultural sciences and natural Resources, Gorgan, Iran.

Email: a.dehghani@gau.ac.ir, amirahmad.dehghani@gmail.com

Tel: +9113778297

Prof. Ozgur Kisi

Professor, Faculty of Natural Sciences and Engineering, Ilia State University, Tbilisi, Georgia & Guest Professor at Technical University of Lübeck, Germany.

Email: ozgur.kisi@iliauni.edu.ge

Assocait Prof. Parviz haghightJou

Professor (Associate) Department of Water Engineering, Faculty of water and soil, University of Zabol, Zabol, Iran.

Email: phjou40@gmail.com

Tel: +9155425136

Prof . Lee Teang Shui

Professor, Faculty of Engineering, University of Putra Malaysia.

Email: tslee@eng.upm.edu.my