

## Curriculum Vitae

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**Date of Birth:** ۱۹۸۳.۰۴.۲۱

**Place of Birth:** Sabzevar, Khorasan Razavi Province, Iran

**Marital Status:** Married

**Language:** Persian, English



### Research Interests

My general research interest is in the fields of hydrology and water resources, with specific interest in the areas of hydrologic modeling, climate change, hydro-climatology, water resources management, Impacts of Land-Use change on water resources, Hydrogeology.

### Education

- **Ph.D.** graduate in Natural Resources Engineering-Combating Desertification, Faculty of Natural Resources and Earth Science, Department of Desert Engineering, Kashan University, Kashan, Iran, ۲۰۱۲- ۲۰۱۷.

**PhD Thesis:** The impacts of land-use change and climatic parameters on hydrologic indicators in arid and semi-arid regions (A case study: Mashhad Plain Basin).

- **Sabbatical**, Department of Civil, Environmental, Architectural Engineering and Mathematics, University of Brescia, Italy. Cooperating with Prof. Roberto Ranzi and his colleagues for ۹ month starting from April ۲۱<sup>st</sup>, ۲۰۱۶ until September ۲۱<sup>st</sup>, ۲۰۱۶.

- **M.Sc.** in Watershed Management Engineering, Department of Natural Resources, Mazandaran University, Sari, Iran, ۲۰۰۷-۲۰۱۰.

**M.Sc. Thesis:** Streamflow simulation using IHACRES hydrological model (Case Study: Kasilian catchment, Mazandaran Province, Iran).

- **B.Sc.** in Watershed Management Engineering, Department of Natural Resources, Gorgan University, Gorgan, Iran, ۲۰۰۳ - ۲۰۰۷.  
**B.Sc. Thesis:** Investigation on dominant discharge changes trend in Gorganroud watershed, Golestan Province, Iran.

### **Workshop & Summer School**

- **Kashan University, Iran, ۲۰۱۲. Title:** Groundwater modeling using three dimensional groundwater Model (MODFLOW).
- **Sari Agricultural Sciences and Natural Resources University, Iran, ۲۰۰۹. Title:** Climate Change and Dendrochronology.
- **University of Ljubljana, Slovenia, starting from ۲۷ June ۲۰۱۶ until ۱۷ July ۲۰۱۶.**  
**Subject of Summer School:** Environmental Protection and Natural Disasters.

### **Selected Articles in Journals**

- Soleimani Sardo, **Zarei, M.** ۲۰۱۹. M and Drought Monitoring Using MODIS Data and Its Comparison with SPI Meteorological Index in Short Periods (Case Study: Jaz\_Murian basin). **Iranian Journal of Watershed Management.** ۱۰(۲۰): ۲۰۰-۲۶۱.
- Ebrahimi Khusfi, Z and **Zarei, M.** ۲۰۲۰. Relationships between Meteorological Drought and Vegetation Degradation Using Satellite and Climatic Data in a Semi-Arid Environment in Markazi Province, Iran. **Journal of Rangeland Sciences.** ۱۰(۲): ۲۰۴-۲۱۶.
- Ebrahimi Khusfi, Z., Ghazavi, R and **Zarei, M.** ۲۰۲۰. The Effect of Climate Changes on the Wetland Moisture Variations and Its Correlation with Sand-Dust Events in a Semiarid Environment, Northwestern Iran. **Journal of the Indian Society of Remote Sensing.** <https://doi.org/10.1007/s12024-020-01203-7>
- Alavinia, S.H and **Zarei, M.** ۲۰۲۱. Analysis of spatial changes of extreme precipitation and temperature in Iran over a ۵۰-year period. **International Journal of Climatology.** <https://doi.org/10.1002/joc.6840>
- Alavinia, S.H and **Zarei, M.** ۲۰۲۰. Climate change trends analysis using by extreme indices of long term rainfall and temperature in South East of Iran. **Iranian Journal of Regional Planning.**
- **Zarei, M.**, R.Ghazavi, A.A. Vali, and K. Abdollahi, ۲۰۱۷. Impact of Land use Change on Precipitation and Temperature Trends in an Arid Environments. **Biological Forum – An International Journal,** ۹(۱): ۲۱۸-۲۲۹.

- **Zarei, M.**, R.Ghazavi, A.A. Vali, and K. Abdollahi, ۲۰۱۶. Estimating Groundwater Recharge, Evapotranspiration and Surface Runoff using Land-use data: A Case Study in Northeast Iran. **Biological Forum – An International Journal**, ۸(۲): ۱۸۱-۱۸۷.
- Soleimani, M., A. Talebi, and **M. Zarei**, ۲۰۱۶. The effects of drought on the quality of surface water resources, Kshkan watershed. **Journal of watershed management Research**, ۶ (۱۲): ۱۰۴-۱۶۰ (In Persian).
- Vardian, F., K. Shahedi, M. Habibnejad and **M. Zarei**, ۲۰۱۰. Evaluation of IHACRES rainfall-runoff model to simulate daily and monthly streamflow in Navroud Catchment. **Iranian Water Research Journal (IWRJ)**, ۸(۱۰): ۲۲۹-۲۳۳ (In Persian).
- Ghanbarpour, M.R., M. Amiri, **M. Zarei**, and Z. Davari, ۲۰۱۴. Comparison of stream flow predicted in a forest watershed using different modelling procedures: ARMA, ANN, SWRRB, and IHACRES models. **International Journal of River Basin Management**, ۱۰:۳, ۲۸۱-۲۹۲, DOI: ۱۰.۱۰۸۰/۱۰۷۱۰۱۲۴.۲۰۱۲.۶۹۹۸۹۳.
- **Zarei, M.**, A. Azmoodeh, H. Amirnejad, A. Pirnia, ۲۰۱۳. Investigation of Effective Factors on Utilizes Non-Comm:union: in the Watershed Management Projects (Case Study: Berenjestanak Catchment). **Economics of Natural Resources**. (In Persian).
- Ghanbarpour, M.R., S. Salimi, M.M. Saravi and **M. Zarei**, ۲۰۱۱, Calibration of River Hydraulic Model combined with GIS analysis using ground-based observation data. **Research Journal of Applied Sciences, Engineering and Technology** ۳(۰): ۴۰۶-۴۶۷.
- **Zarei, M.**, M. Habibnejad, K. Shahedi and M.R., Ghanbarpour, ۲۰۱۱, Calibration and Evaluation of IHACRES Hydrological Model for Daily Flow Simulation. **Journal of Water and Soil**, ۲۰(۱): ۱۰۴-۱۱۴ (In Persian).
- Shahedi, K., and **M. Zarei**, ۲۰۱۱. Assessment of potential evapotranspiration estimation methods in Mazandaran Province. **Journal of Irrigation and Water Engineering**, ۱(۳): ۱۲-۲۱, ISSN ۲۲۰۱-۷۳۰۹ (In Persian).
- Habibnejad, M., K. Soleimani, **M. Zarei** and A. Azmoodeh, ۲۰۱۰. Investigation of Dominant Discharge Changes Trend in Gorganrod Watershed. **Journal of Environmental Hydrology**, Vol. ۱۸. ISSN ۱۰۰۸-۳۹۱۲.
- **Zarei, M.**, M.R. Ghanbarpour, M. Habibnejad and K. Shahedi, ۲۰۰۹. Streamflow Simulation using IHACRES Rainfall-Runoff Model (Case Study: Kasilian Catchment), **Iranian Journal of Watershed Management Science & Engineering**, ۳(۸): ۱۱-۲۰ (In Persian).

## Selected Articles of Conferences

- Shahedi, K., F. Vardian, M. Habibnejad, M.H. Miryaghobzadeh, and M. Zarei, ۲۰۱۶. Rounoff simulation in some catchments in Iran using IHACRES rainfall-runoff model. ERB۲۰۱۶, Sep. ۲۰۱۶, Bucharest, Romania.
- Ghanbarpour, M.R., Sh. Salimi, M.M. Saravi, **M. Zarei** and X. Chen, ۲۰۱۱. A Floodplain Analysis using HEC-RAS and GIS: Implications for Sustainable Urban Development. National Hydrologic Warning Council Conference, San Diego, May ۱۲.
- **Zarei, M.**, M. Habibnejad., K, Shahedi and M.R., Ghanbarpour, ۲۰۱۰. Investigation an effective rainfall to produce streamflow in Kasilian Catchment. ۲<sup>nd</sup> International Conference on Climate Change & Dendrochronology in Caspian Ecosystems, May ۱۲-۱۴, Sari, Iran.
- Rahnama, H., A. Azmoodeh, **M. Zarei** and M.R. Ghanbarpour, ۲۰۱۰. Conflict in Natural resources and Lands Management Case Study (Alborz Dam). ۲<sup>nd</sup> International Conference Climate Change & Dendrochronology in Caspian Ecosystems, May ۱۲-۱۴, Sari, Iran.
- **Zarei, M.**, and M.R. Ghanbarpour, ۲۰۰۹. Determination of groundwater utilization minimum and maximum times (Case Study: Mashhad Plain). National Conference on Drought, Isfahan, Iran.
- Azmoodeh, A., M. Habibnejad, **M., Zarei** and H. Tahbandi, ۲۰۰۹. Assessment of infraction water storage ponds and approach of contrast whit drought in North of Iran. ۱<sup>st</sup> International Conference of Water Crisis, Zabol University, Iran.
- **Zarei, M.**, A. Azmoodeh and M.R. Ghanbarpour, ۲۰۰۸. Investigation of Wet and Drought Trend in Haraz Watershed, Iran. ۱<sup>st</sup> International Conference on Climate Change & Dendrochronology in Caspian Ecosystems, May ۱۴-۱۵, Sari, Iran.
- **Zarei, M.**, A. Azmoodeh and M.R. Ghanbarpour, ۲۰۰۸. Investigation of Precipitation Random Pattern According to Time Series Analysis Method. ۱<sup>st</sup> International Conference on Climate Change & Dendrochronology in Caspian Ecosystems, May ۱۴-۱۵, Sari, Iran.