# Dr. Majid Delavar

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# **ACADEMIC BACKGROUND:**

• Ph.D., Water Resources Eng., University of Tarbiat Modares, Tehran-Iran, September, 2007-2012.

Thesis title: "Real time and Risk-Based Decision Making for Water Allocation During Droughts"

- MSc., Water Structures Eng., University of Tarbiat Modares, Tehran-Iran, 2002-2005.
   Thesis title: "Assessment of Urmia Like level change and coastal risk analysis"
- BSc., Water Eng. University of Bu Ali Sina, Hamedan-Iran, 1998-2002.

#### **RESEARCH INTERESTS:**

- Impact of Climate change on Water Resources and Agricultural Systems
- Hydrological Forecasts and Flood Risk Assessment
- Optimization of Water Resources Allocation
- Integrated River Basin simulation
- Integrated Water Resources Management

### **EXPERIENCE:**

- Uncertainty analysis in climate change impact assessments and adaptation, Tarbiat modres university, 2015-present.
- Ensemble Drought Prediction in Urmia lake basin, Drought Risk Management Plan for Lake Urmia Basin, Iran, Tarbiat modares University, 2013-2014.
- Development of an Optimization model for water resources allocation during drought in Urmia lake basin, Iran, Drought Risk Management Plan for Lake Urmia Basin, Iran, Tarbiat modares University, 2012-2013.
- Assessment of best agricultural management practices on inflow to the Urmia lake using SWAT model, , Tarbiat modares University, 2011-2013
- Development of integrated water resources management decision support systems, DSS work group of Iran water master plan, Water Research institute, 2009-present.

- Integrated Water Resources Management Research Project, Water Research Institute, Tehran-Iran, 2009-2010.
- Development of Zayandeh Rud Drought early warning system, Tarbiat Modarres University. 2008-2010.
- Development of drought indices calculation Software (DIC), Institute of Meteorology and Atmospheric Science, Tehran-Iran, 2009.
- Application of SWAT model for water quantity and quality simulation, Workshop of SWAT model, Water Engineering Research Center, Tarbiat Modarres University, 2008.
- Integrated Water Resources Management. Workshop of IWRM, Tarbiat Modarres University, 2010.
- Assessment of methods of drought forecasting in Iran, Atmospheric Science and Meteorological Research Institute, Tehran-Iran, 2007-2008.
- Assessment of snow cover and its relationship to large-scale climate signals in South West of Iran, Institute of Meteorology and Atmospheric Science, Tehran-Iran, 2008.
- Forecasting of river discharge using large-scale climate signals (case study: Karun Basin-Iran) Institute of Meteorology and Atmospheric Science, Tehran-Iran, 2008.
- Assessment of Monetary policy and financial impact on agricultural employment (applications of artificial neural network models and time series) ,Zabol University, Zabol-Iran, 2006-2007.
- Assessment of drought indicators performance in semi-arid and arid areas, Zabol University, Zabol-Iran, 2005-2006.
- Development of drought early warning system to optimize water allocation (Case study: Karun basin-Iran) (MSc. Thesis Advisor), University of Mashhad, Mashhad-Iran, 2010-2011.

### **PUBLICATIONS:**

- Delavar M., Morid S., Shafeeifar M., 2009, Urmia Lake level risk assessment and impact of climate change on it, Iran's agriculture science research journal.
- Delavar M., Fattahi E., 2009, Long-term rainfall forecasts using artificial neural networks (Case Study:South West of Iran), Research and Construction Journal.
- Delavar M., Morid S., Shafeeifar M., 2010, Development of Urmia Lake level fluctuation model considering uncertainty in water balance components, journal of hydraulic.
- Delavar M., Fattahi E., Noohi K., 2010, assessment and forecasting of snow surface using black box models, Geographical Research journal.

- Delavar M., Morid S., Shafeeifar M., 2006, Simulation and uncertainty analysis of Urmia Lake level fluctuations. 4th International Conference of Civil Engineering, University of Tarbiat Modares, Tehran-Iran.
- Fatthi E., Rahimzade F., Delavar M., 2006, assessment of Synoptic patterns that influencing frostbite in Iran . Applied and scientific congress of frostbite, Yazd, Iran.
- Delavar M., Morid S., 2007, Simulation and Analyses of Uncertainty and Sensitivity of the Changes of the Urmia Lake Level to Water Budget Components Using ANNs and ANFIS, Geophysical Research Abstracts, Vol. 9, 05507, 2007.
- Delavar M., Morid S., Nikbakht H.,2009, Development appropriate algorithms for a distributed snowmelt model in terms of lack of data. Third Conference of Iran Water Resources.
- Nabavi M., Delavar M., 2010, Assessment of Hydrological parameters impact on watershed runoff using SWAT model. 8th International Conference of Civil Engineering - University of Shiraz.
- Delavar M., Fattahi E., Noohi K., 2010, forecasting of Snow pack using meteorological signals (Case Study: Karun Basin- Iran), Third Conference of Iran Water Resources.
- Sabbaghzadeh H., Riahi M., Delavar M., 2009, Plans for the Localization of Implementing Water Quality and Quantity Monitoring Systems by Remote Sensing, IAHR Conference 2009.
- Samani J.M.V., Delavar M., 2010, Application of Analytical Network Process (ANP) for Prioritize Shrimp Culture Sites, Iran Water Resources Research Journal.
- Delavar M., Moghadasi M., Morid S., 2012, A real time model for optimal water Allocation During Drought, Irrigation and Drainage (ASCE).
- Morid R., Delavar M., 2014, Assessment of climate change impacts on environmental flows using hydrological indicators, Iran Water Resources Research Journal.
- Mansuri B., Ahmadadeh H., Morid S., Delavar M., 2015, Assessment of Climate Change Impacts on Water Resources in Zarrinehrud Basin Using SWAT Model, Journal of Water and soil.
- Rezaei M., Delvar M., Morid S., 2015, Climate change Impacts on hydro climatic Variables, Case study: Siminehrood Basin, Iran, Iran Meteorological Journal.
- Moghaddasi, M., Morid, S., Delavar, M. and Arabpour, F., 2015. Managing of the
  agriculture water consumption to meet the environmental flows of the Lake Urmia
  during the droughts. Drought: Research and Science-Policy Interfacing, p.445.

- Hajihoseini, H., Hajihoseini, M., Morid, S. and Delavar, M., 2015. Hydrological Simulation of the Upper Hirmand Transboundary Catchment Using SWAT Model. JWSS-Isfahan University of Technology, 19(72), pp.255-268.
- Ahmadzadeh, H., Morid, S., Delavar, M. and Srinivasan, R., 2015. Using the SWAT model to assess the impacts of changing irrigation from surface to pressurized systems on water productivity and water saving in the Zarrineh Rud catchment. Agricultural Water Management.
- Zaman, M.R., Morid, S. and Delavar, M., 2016. Evaluating climate adaptation strategies on agricultural production in the Siminehrud catchment and inflow into Lake Urmia, Iran using SWAT within an OECD framework. Agricultural Systems, 147, pp.98-110.
- Morid, R., Delavar, M., Eagderi, S. and Kumar, L., 2016. Assessment of climate change impacts on river hydrology and habitat suitability of Oxynoemacheilus bergianus. Case study: Kordan River, Iran. Hydrobiologia, 771(1), pp.83-100.
- Heydari, F., Saghafian, B. and Delavar, M., 2016. Coupled Quantity-Quality Simulation-Optimization Model for Conjunctive Surface-Groundwater Use. Water Resources Management, pp.1-17.
- Hajihoseini, H, Hajihoseini, M., Morid, S., Delavar, M., Boije, M., 2016. Hydrological Assessment of the 1973 Treaty on the Transboundary Helmand River, Using the SWAT Model and a Global Climate Database, Water Resources Management, 30 (13), 4681-4694.
- E. Forootan, Safari A., Mostafaie M., Schumacher M, Delavar M., Awange L.J. 2016.
   Large-Scale Total Water Storage and Water Flux Changes over the Arid and Semiarid Parts of the Middle East from GRACE and Reanalysis Products, Surv Geophys , DOI 10.1007/s10712-016-9403-1 (Accepted).
- Imani S., Delavar M., Niksokhan M.H. (2016), Identification of Nutrients Critical Source Areas with SWAT Model under Limited Data Condition, Water resources (Accepted).

## **HONORS/AWARDS:**

- Member of the Iranian Elite Foundation from 2009.
- Top PhD. Thesis Award, Fourth Festival of Iranian Water Engineering and Management, 2012.