**CURRICULUM VITAE**

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| * **PERSONAL DATA**

C:\Users\Espinas\Desktop\2017-01-24 13.30.33.jpgName: Moahmmad Ali GhorbaniAcademic Rank: Associate Professor Born: 26 Jan 1974 in Tabriz, IranLanguages: Azeri and Persian (native), English (good)Address: Water Engineering Department, Faculty of Agriculture,  University of Tabriz, Tabriz , Iran Phone: +98-(41)-33392786 Fax: +98-(41)-33345332  E-mail: Ghorbani@tabrizu.ac.ir <https://www.researchgate.net/profile/Mohammad_Ali_Ghorbani2>Martial Status:Married |
| * **EDUCATION**

2000-2006 PhD in Hydrology and Water Resources Engineering, University of Tehran ,Tehran, Iran Dissertaion: Application of Catastrophe theory in rainfall-raunoff modeling1997-2000M.Sc. in Irrigation Structures, University of Tehran ,Tehran, Iran Thesis: Regional flood frequency analysis 1993-1997B.Sc. in Irrigation Engineering, University of Tabriz,Tabriz, Iran  |
| * **HONORS AND AWARDS**

1. First rank in nation-wide MSc. entrance exam.2. M.Sc. Degree, First Class Honor , University of Tehran.20003. Ph.D. Degree, First Class Honor , University of Tehran.2006.4. Prize Winner and Distinguished Researcher of Faculty of Agriculture, Univeristy of Tabriz , 2011.5.Prize Winner and Distinguished Researcher all over Agriculture and Veterinary Medicine Faculties of University of Tabriz, 2011.6.Prize Winner and Distinguished Researcher of Faculty of Agriculture, Univeristy of Tabriz , 2016.7.Prize Winner and Distinguished Researcher all over Agriculture and Veterinary Medicine Faculties  of University of Tabriz, 2016. |
| * **MEMBERSHIP IN SCIENTIFIC SOCIETY**

1) Iranian Hydraulic Association, Member, National, 2005-Present2) Iranian Watershed Management Association, Member, National, 2005-2010.3) European Geosciences Union (EGU) 2006-2012. |
| * **PROFESSIONAL EXPERIIENCE**

Nov. 2004 - Jun. 2010 Assistant Professor University of Tabriz , Tabriz, Iran Jul. 2010 – Present Associate Professor University of Tabriz , Tabriz, Iran  |
| * **RESEARCH INTERESTS**

 Hydrology, Hydrometeorology, Hydrological modeling, Chaos and Catastrophe theory, Artificial intelligence techniques |
| * **INTERNATIONAL JOURNAL PUBLICATIONS**

- G**horbani, M.A**., Shamshirband S., Zare Haghi, D., Azani, A., (2017). “Application of firefly algorithm-based support vector machines for prediction of field capacity and permanent wilting point “.Soil & Tillage Research . *In Press*.1.Delafrouz, H., Ghaheri, A., **Ghorbani, M.A**., (2017) “A novel hybrid neural network based on phase space reconstruction technique for daily river flow prediction ". Soft Comupting .(In press).2.Kashani, M.H., **Ghorbani, M.A.**, Dinpashoh, Y., Shahmorad, S. Kundzewicz, Z.W., (2017) " Comparative study of different wavelets for developing parsimonious Volterra model for rainfall- runoff simulation " . Water Resources. (In press).**3.Ghorbani, M.A.**, Asadi, H., Makarynskyy, O., Makarynska D., Mundher Yaseen Z., (2017). “Augmented chaos-multiple linear regression approach for prediction of wave parameters” . Engineering Science and Technology, an International Journal.4.Jafarzadeh, A.A., Pal, M., Servati, M., FazeliFard, M.H., **Ghorbani, M.A.**,(2016) "Comparative analysis of support vector machine and artificial neural network models for soil caution exchange capacity prediction " International Journal of Environmental Science and Technology,13(1).5.Kashani, M.H., **Ghorbani, M.A.,** Dinpashoh, Y., Shahmorad, S., (2016)" Integration of Volterra model with artificial neural networks for rainfall-runoff simulation in forested catchment of northern Iran ".Journal of Hydrology, 540.6.Shahabi, M., Jafarzadeh, A. A., R. Neyshabouri, M., **Ghorbani , M. A.,** Kamran, K.V.,(2016)" Spatial modeling of soil salinity using multiple linear regression, ordinary kriging and artificial neural network methods ".Taylor & Francis. Archives of Agronomy and Soil Science.151-160.**7.Ghorbani, M. A.,** AhmadZadeh, H., Isazadeh, M., Terzi, O.,(2016)"A comparative study of artificial neural network (MLP, RBF) and support vector machine models for river flow prediction " Environmental Earth Sciences,75.**8.Ghorbani, M. A.,** Khatibi, R., FazeliFard, M. H., Naghipour, L., Makarynskyy, O., (2016)"Short-term wind speed predictions with machine learning techniques" Meteorology and Atmospheric Physics, 128.**9.Ghorbani, M. A.,** Khatibi, R., Goel, A., FazeliFard, M. H., Azani, A.,(2016)"Modeling river discharge time series using support vector machine and artificial neural networks " Environmental Earth Sciences,75.**10.Ghorbani, M.A.,** Asadi, H., Makarynskyy, O., Makarynska, D., Yaseen, Z.M.,(2016)" Augmented chaos-multiple linear regression approach for prediction of wave parameters " Engineering Science and Technology, an International Journal.11.Kashani, M.H., Daneshfaraz, R., **Ghorbani, M.A.,** Najafi, M.R., Kisi, O., (2015) "Comparison of different methods for developing a stage-discharge curve of the Kizilirmak River", Journal Flood Risk Management, 8, 71-86.  **12.Ghorbani, M.A.,** Singh, V.P., Sivakumar, B., Kashani, M.H., Atre, A.A., Asadi, H.,(2015)" Probability distribution functions for unit hydrographs with optimization using genetic algorithm " Applied Water Science.**13.Ghorbani, M.A.,** Aalami, M.T., Naghipour, L., (2015)" Use of artificial neural networks for electrical conductivity modeling in Asi river " Applied Water Science.14.Nemati, S., Fazelifard, M.H., Terzi, O., **Ghorbani, M.A.,** (2015)" Estimation of dissolved oxygen using data-driven techniques in the Tai Po River, Hong Kong " Environmental Earth Sciences,74.15.Jani, J., **Ghorbani, M.A.,** Shamsai, A., (2014)"Dynamics of Monthly Rainfall In Ramsar", Journal of Applied Science and Agriculture,9(4), 1371-1378. 16.Kashani, M. H., **Ghorbani, M. A.,** Dinpashoh, Y., Shahmorad, S., (2014)" Comparison of Volterra Model and Artificial Neural Networks for Rainfall-Runoff Simulation "Natural Resources Research, 23(3).17.Khatibi, R., **Ghorbani, M.A.,** Naghipour, L., Jothiprakash, L., Fathima, T.A., Fazelifard, M.H,. (2014)"Inter-Comparison of time series models of lake levels predicted by several modeling strategies", Journal of Hydrology, 511, 530-545. 18.Khatibi, R., Salmasi, F,. **Ghorbani, M.A.,** Asadi, H., (2014)"Modeling Energy Dissipation Over Stepped- gabion Weirs by Artificial Intelligence", Water Resource Manage, 28, 1807-1821. 19.Abbaspour, A., Farsadizadeh, D., **Ghorbani, M.A.,** (2013) "Estimation of hydraulic jump on corrugated bed using artificial neural networks and genetic programming", Water Science and Engineering, 6(2), 189-198.**20.Ghorbani, M.A.,** Khatibi, R., Hosseini, B,. Bilgili, M., (2013)"Relative importance of meters affecting wind speed prediction using artificial neural networks", theory Appl Climatol, 114,107-114. 21.Hosseini, S.H., Jafari, J., **Ghorbani, M.A.,**(2013) "Sensitivity of the FAO-Penman Montecito Reference Evapotranspiration Equation to Change in Climatic Variables in the North-Western Iran", Research in Civil and Environmental Engineering, 1, 28-40. **22.Ghorbani, M.A.,** Hasanpour, M., Zeynali, S., (2013)"Development of synthetic unit hydrograph using probability models ", Research in Civil and Environmental Engineering, 1, 54-66.  23.Aghvami, E., Abbaspour, A., **Ghorbani, M.A.,** Salmasi, F., (2013) "Estimate of Channels Seepage Using Seep/w and Evolutionary Polynomial Regression (EPR) modeling (Case Study: Qazvin and Isfahan Channels) Journal of Civil Engineering and Urbanism, 3(4), 211-215.  24.Khatibi, R., Naghipour, L., **Ghorbani, M.A.,** Smith, M.S., Karimi, V., Farhoudi, R., Delafrouz, H., Arvanaaghi, H.,(2013)" Developing a Predictive tro pospheric ozone model for Tabriz " Atmospheric Environment,68.**25.Ghorbani, M.A.,** Hosseini, H., Fazelifard, M.H., Abbasi H.,(2013)"Sediment load estimation by MLR,ANN.NF and sediment Rating Curve (SRC) in Rio Chama River", Journal of Civil Engineering and Urbanism, 3(4), 136-141. 26.Khatibi, R., Naghipour, L., **Ghorbani, M.A.,** Aalami, M.T.,(2013)"Predictability of relative humidity by two artificial intelligence techniques using nosisybdata from two Californian gauging stations", Neural Comput & Applic , 23,2241-2252.  27.Domenico, M.D,. **Ghorbani, M.A.,** Makaraynskyy, O,. Makarynska, D,. Asadi, H,.(2013)"Chaos and reproduction in sea level", Applied Mathematical Modeling, 37,3687-3697.  28.Delfrouz H, Ghaheri, A., **Ghorbani, M.A.,** (2013)"Need to criteria for the evolution of performance and categorize models in hydrology", Research in Civil and Environmental Engineering, 1, 67-78.  29.Alami, M. T., **Ghorbani, M.A.,** Malekani, L,. (2013)" Chaotic Analysis and Prediction of River Flow" Journal of Hydraulic Structures, 1(1).**30.Ghorbani, M.A.,** Pourzangbar, A., (2012) "Determination of the Most Important parameters on Scour at Coastal Structures", Journal of Civil Engineering and Urbanism, 2(2) ,68-72.  **31.Ghorbani, M.A.,** Daneshfaraz, R., Aravangi, H., pourzangbar, A., (2012)"Local Prediction in River Discharge Time Series", Online Journal of Civil Engineering and Urbanism, 2(2) ,51-55.  **32.Ghorbani, M.A.,** Jabbari, H., Asadi, H., Yousefi, P., (2012)"Application of Chaos Theory and Genetic Programming in Runoff Time Series", International Journal of Structural and Civil Engineering, 1(2). 33.Khatibi, R., Sivakumar, B., **Ghorbani, M.A.,** Kisi, O,. Kocak, K., Farsadizadeh, D., (2012) "Investigating Chaos in river stage and discharge series" Journal of Hydrology, 414-415 ,108-117.  34.Salmasi, F., Khatibi, R., **Ghorbani, M.A.,** (2012)"A study of friction factor formulation in pipes using artificial intelligence techniques and explicit equations "Accepted in to journal of Environmental Engineering, Tubitak. **35.Ghorbani, M.A.** Singh, V.P., Daneshfaraz, R., Kashani, M.H., (2012)"Modeling Pan Evaporation Using Genetic Programming" Journal of Statistics: Advances in Theory and Applications,8(1).36.Salmasi, F., Khatibi, R., **Ghorbani, M.A.,**(2012)" A study of friction factor formulation in pipes using artificial intelligence techniques and explicit equations " Turkish Journal of Engineering and Environmental Sciences (Tubitak),36.37.Khatibi, R., **Ghorbani, M.A.,** Kashani, M., Kisi, O., (2011)"Comparison of three artificial intelligence techniques for discharge routing" journal of Hydrology, 403, 201-212.  38.Kavehkar, S,. **Ghorbani, M.A.,** Khakhlov, V., Ashrafzadeh, A., Darbandi, S., (2011)"Exploiting Two Intelligent Models to Predict Water Level:A field study of Urmia Lake, Iran", World Academy of Science, Engineering and Technology 75 .  39.Khatibi, R,. **Ghorbani, M.A.,** Aalami, M.T., Kocak, K., Makarynskyy, O., Makarynska, D., Aalinezhad, M., (2011)"Dynamics of hourly sea Level at Hillarys Boat Harbour, Western Australia: a chaos theory perspective: Ocean Dynamics , 61,1797-1807.40.Shiri, J., Dierickx, W., Pour-Ali Baba, A., Nemati, S., **Ghorbani, M.A.,**(2011) " Estimation daily pan evaporation from climatic data of the State of Illinois USA using adaptive neuro-fuzzy inference system (ANFIS) and artificial neural network (ANN)" Hydrology Research,42.6.**41.Ghorbani, M.A.,** Kisi, O., Alinezhad, M., (2010)"A probe into the chaotic nature of daily streamflow time series by correlation dimension and lyapunov methods, 34, 4050-4057.  **42.Ghorbani, M.A.,** Khatibi, R., Sivakumar, B., Cobb, L.,(2010)"Study of discontinuities in hydrological data using catastrophe theory", Hydrological Sciences Journal des Sciences Hydrologiques, 55(7).**43.Ghorbani, M.A.,** (2010)"Flood Frequency Analysis using Mathematical" Accepted in to Journal of Environmental Engineering, Tubitak.44.Domenico, M. De., **Ghorbani M.A,** (2010)“Chaos and scaling in daily river flow”, Physic A. **45.Ghorbani, M.A.,** Makarynskyy, O., and Makarynska, D., (2010)"Genetic Programming for Sea Level Predictions in an Island Environment", International Journal of Ocean and Climate Systems, 1(1).**46.Ghorbani, M.A.,** Toomanaian, M,. Najafi, M., Cobb, L., Van, H.,(2005) "Possibility of Cusp Catastrophe in Rainfall-Runoff Processes", International Journal of Engineering Science,16(4).* **NATIONAL PAPERS: (in Persian)**

1.Sabri, M., Neyishabouri, MR., **Ghorbani, M.A.,** Shahbazi, F., Valizadeh, K., (2016)" Estimation of soil quality indices and its uncertainty using Bootstrap-based Artificial Neural Networks (BANNs)". Journal of Soil and Water Knowledge,26(1/2),173-181.2.Delafrouz,H., Ghaheri, A., **Ghorbani, M.A.,** Fazelifard, M.H.,(2016)" Using Nonlinear Dynamic Systems Parameter for Hydrologic Classification of Catchments", Journal of Watershed Management Research,13(7),42-49.**3.Ghorbani, M.A.,** Azani, A., Naghipour, L.,(2016)"Comparison of the Performance of Support Vector Machine with other Intelligent Techniques to Simulate Rainfall-Runoff Process" Journal of Watershed Management Research, 13(7),92-103.4.Isazadeh, M., Ahmadzadeh, H., **Ghorbani, M. A.,** (2016)" Assessment of kernel functions performance in river flow estimation using support vector machine " J. of Water and Soil Conservation,23(3),69-89.5.Gharibdost, M., **Ghorbani, M.A.,** Forozande Shahraki, E., (2016)" Estimating impact of climate change on rainfall-runoff Sofi Chay ".Journal of Water Resources Engineering, 9,17-29.6.Amirian, F., Jafarzadeh, A., Shahbazi, F., **Ghorbani, M.A.,** Servati, M.,(2016)" Application of the Fuzzy Sets Theory and FAO Method on Suitability and Clustering of Land Units in Marand region for Sunflower and Canola Products " Journal of Soil and Water Knowledge,26(1/1),273-290..**7.Ghorbani, M.A.,** Pourbabk, S., Jabari Khamaneh, H., Asadi, E, FazeliFard, M.H., (2016)" The temperature classification of stations by using fuzzy clustering and neural network Kohonen "Journal of Geography and Planning, 55(20),45-63.8.Khalegi, S., Rostaee, SH., Khorshiddost, A.M., Rezaee Mogadam, M.H., **Ghorbani, M.A.,** Salmasi, F., (2015) "Check the role of man in river channel morphology changes Lighvanghai" Journal of geographic space, 55(16), 109-133. .9.Sanikhani,H., Dinpashoh, Y., **Ghorbani, M. A.,** Zargham, M., (2015) " River Flow Prediction Using the Nearest Neighbor Probabilistic Ensemble Method"Journal of water and soil, 29(4),919-932. 10.Hanifezadeh asl, SH., **Ghorbani, M. A.,** Jabarikhamane, H., (2015) "Determination of quantitative and qualitative parameters of hot mineral springs tourist town Sareyn using Mann-Kendall". Journal of Geography and Development. 41(4).65-86..11.Dehghani, R., **Ghorbani, M. A.,** TeshnehlabAmir, T., Rikhtehgar Gheasi, A., Asadi, E., (2015)"Comparison and Evalution of Bayesian Neural Network, Gene gramming, Support Vector Machine and Multiple expression proLinear Regression in River Discharge Estimation (Case Study: Sufi Chay Basin)" Journal of Irrigation and Water,20(5),66-85.12.Jahanbakhsh asl, S., **Ghorbani, M. A.,** Abtahi, V. Tadayoni, M., Valaee, A., (2015)"Study of temporal and spatial distribution of rainfall city of Tabriz using cluster analysis" Journal of geographic space,50(15),59-81.13.Hosseini,S.H., **Ghorbani, M.A.,** Massah Bavani, A.R.,(2015)"Raifall-Runoff Modelling under the Climate Change Condition in Order toProject Future Streamflows of Sufichay Watershed" Journal of Watershed Management Research,11(6),1-14..12.Hasanpour Kashani, M., **Ghorbani, M.A.,** Dinpazhouh, Y., Shahmorad, S., (2015)"Rainfall-Runoff Simulation in the Navrood River basin using Truncated Volterra Model and ArtificialNeural Networks" Journal of Watershed Management Research,12(6),1-10.13.Gharibdost, M., **Ghorbani, M.A.,** Fazelifard, M.H., Asadi, H., (2015)" Analysis of power spectrum (Spectrum) to assess the scale of monthly precipitation of 33 rain gauges" Journal of Iran Water,9(1),49-58.**14.Ghorbani, M.A.,** Dehghani, R., (2015), "Application of Bayesian Neural Networks, Support Vector Machines and Gene Expression Programming Analysis of Rainfall - Runoff Monthly (Case Study: Kakarza River)"Journal of Science and Engineering Irrigation,39(2),125-138.15.Sanikhani, H., Dinpashoh, Y., **Ghorbani, M.A.,** (2015)" Baranduz-Chay River Flow Modeling Using the K-Nearest Neighbor and Intelligent Methods"" Journal of Soil and Water Knowledge,25(1),219-233.16.Soofirahimi, M., Fakheri fard, A., Dinpashoh, Y., Asadi, E., **Ghorbani, M.A.,** (2015)" Regional Analysis of the Maximum Annual River Flow Data in East Azarbaijan Province Rivers Using the L-moments Method " Journal of Soil and Water Knowledge,25(3),253-265.17.Jahedi Sfanjani, N., **Ghorbani, M.A.,** (2015)" The trend analysis of rainfall and discharge stations Bigelow and Sami Nagorno-hand basin", Journal of Geography and Planning, 52(19), 43-63.**18.Ghorbani, M.A.,** Azani, A., Mahmoudi Vanolya, S.,(2015)" Rainfall-Runoff Modeling Using Hybrid Intelligent Models ", Journal of Iran-Water Resources Research,11(2),146-150.**19.Ghorbani, M.A.,** Hosseini, S.H., Kashani, M.H., Abbasi, H., (2015)" Evaluation of Alavian Reservoir Operation Performance under the Condition of Future Climate Change " Journal of Civil and Environmental Engineering,45(2),59-72.20.Jani, R., **Ghorbani, M.A.,** Shamsaee, R., (2015)" Anzali monthly precipitation analysis using chaos theory in climate change " Iran Water Research Journal,9(1),29-39.21.Alami, M.T., Malekani, L., **Ghorbani, M.A.,** (2015) " Rainfall-runoff modeling Lighvanghai using cell Automatic model " Journal of quantitative geomorphology,4(3),60-73.22.Alizadeh, N., **Ghorbani, M.A.,** Darbandi,S., (2015)" SofiChay residual simulate river sediment deposition during floods " Journal of Science and Technology of Agriculture and Natural Resources, Soil and Water Science, 71(19),323-334.23.Fathian, F., **Ghorbani, M.A.,** Dehgan,Z., (2014)"Investigation and Comparison of Hurst Exponent Estimation Methods in Trend and Seasonality Analysis of Hydro-Climatic Variables in Urmia Lake Bain (Case Study: Aji Chai Sub-basin)" Journal of water and soil,28(1),219-229.24.Mohajeri, F., Sagibiyan, M., **Ghorbani, M.A.,** Darbandi,S., Asadi, E., (2014)," The effect of regional precipitation and runoff basin point Balkhlouchay " Journal of geographic space,48(14),129-149.  . 25.Zareamini, F., **Ghorbani, M.A.,** Darbandi,S., (2014)" Assessment of Genetic Programming in estimating soil temperature" Journal of geographic space,47(14),19-38.  26.Hosseinpour, A., **Ghorbani, M.A.,** Darbandi, S.,(2014)" Evaluation of heuristic methods to calculate the suspended sediment discharge Ahar-chai " Journal of geographic space,46(14),89-108.  **27.Ghorbani, M.A.,** Hasanzadeh, Y., Asadi, H., Yousefi, P., (2014)" Capability of transfer function model to estimate the size of the UH " Journal of Iran Water, 14(8),39-45.28.Servati, M., Jafarzadeh, A.A., **Ghorbani, M.A.,** Shahbazi, F., Davatgar, N., (2014)," Land Suitability Evaluation for Alfalfa in Khajeh Region Using the Parametric Square Root method and Fuzzy Set Theory " Journal of Soil and Water Knowledge,24(2),93-105.  **29.Ghorbani, M.A.,** Asadi, H., Jabbari Khamneh, H., Farsadizadeh, D.,(2014)" Derivation of Instantaneous Unit Hydrograph (IUH) using the Shannon Entropy Theory" Journal of Watershed Management Research,10(5),30-42.30.Mokarian, R., Fakheri Fard, A., Asadi, H., **Ghorbani, M.A.,** (2014)" Rainfall-Runoff Simulation Using Grey System Theory (Case Study: Lighvan Watershed)" Journal of Soil and Water Knowledge,24(2),121-133.  31.Servati, M., Jafarzadeh, A.A., **Ghorbani, M.A.,** Shahbazi, F., Davatgar, N., (2014)," Comparison of the FAO and Albero Models in Prediction of Irrigated Wheat Production Potentials in the Khajeh region " Journal of Soil and Water Knowledge,24(3),1-14.  32.Shafaei, M., Fakheri Fard, A., Darbandi,S., **Ghorbani, M.A.,** (2014)" Comparing Filtering of Wavelet Decomposed Waves with Moving Averages (Case Study: Vanyar Station in Ajichay Basin)" Journal of Soil and Water Knowledge, 24(3),191-203.33.Zahiri, A.R., Eghbali, P., **Ghorbani M.A,** (2013)“ Flow discharge modeling in flooded rivers by using genetic programming", J. of Water and Soil Conservation, 19(4),67-83. 34.Ghobadian, R., **Ghorbani, M.A.,** Khalaj, M., (2013)" Comparison of Performance of Dynamic Wave and Gen Expression Programming Methods to River flood routing", Journal of Water and Soil,27(3),592-602.35.Shafaei, M., Fakhei fard, A., darbandi, S., **Ghorbani, M.A.,** (2013)" Prediction Daily Flow of Vanyar Station Using ANN and WaveletHybrid Procedure" Journal of Irrigation and Water, 14(4),113-128.36.Kavekar, SH., **Ghorbani, M.A.,** Ashraf zadeh, A., Darbandi,S., (2013)" Simulation of water level fluctuations with the use of GEP ", Iran. J. Health & Environ,43(3),26-30.**37.Ghorbani, M.A.,** Naghipour, L.,, Karimi, V., Farhoudi, V., (2013)" Sensitivity Analysis of the Effective Input Parameters upon the Ozone Concentration using Artificial Neural Networks" Journal of Iran. J. Health & Environ, 6(1),11-22.38.Lotflahiyagin, M.A., Leshteh neshaee, M.A., **Ghorbani, M.A.,** Biklariyan, M., (2013)" Modeling and forecasting significant wave height Caspian Sea Chaos Theory" Journal of Civil and Environmental Engineering,45(1),97-105.39.Kazemizariopn, M., Nazemi, A.M., Sadredini, S.A., **Ghorbani, M.A.,** (2013)" Modeling of time and space changes of soil salinity downstream lands Hajylrchay Dam in East Azerbaijan province using geostatistical model combining SaltMod " Journal of Iran Water, 12(7),21-31.40.Hajikazemiyan, H., Zarghami, M., Badamchizade, M.A., **Ghorbani, M.A.,** (2012)" Tabriz Urban Water Management with an emphasis on reliability through improved algorithms, particle collection" Journal of Civil and Environmental Engineering, 42(3),39-49.41.Moradizadeh Kermani, F., **Ghorbani, M.A.,** Dinpaghoh, Y., Farsadizadeh, D., (2012)" Predicting Model of River Streamflow Based on Chaotic Phase Space Reconstruction" Journal of Soil and Water Knowledge,22(4),1-16.42.Shojaee, P., Farsadizadeh, D., Hosseinzadeh dalir, A., Salmasi, F., **Ghorbani, M.A.,**(2012) "Application of Submerged Vanes at Cylindrical Bridge Pier as a Scour Countermeasure" Journal of Soil and Water Knowledge,21(1),91-108. 43.Hosseini, S.H., Hosseinzade Dalir, A., Farsadi zadeh, D., Arvanagi, H., **Ghorbani, M.A.,** (2012)" Application control vanes scour around bridge piers rectangular with rounded nose " Journal of Soil and Water knowledge, 22(3),87-101.44.Gezel Sofalo, M., Dinpaghoh, Y., **Ghorbani, M.A.,** Fakherifard, A., (2012)" The trend analysis flow rivers of East Azarbaijan province" Journal of Irrigation, 35(1),71-8".  45.Rostami, M., Fakherifard, A., **Ghorbani, M.A.,** Darbandi, S., Dinpaghoh, Y., (2012) "The application of wavelet analysis to predict river flow" Journal of Irrigation, 35(2), 73-81.46.Khalili, K., Fakherifard, A., Dinpajooh, Y., **Ghorbani, M.A.,** (2011) " Nonlinearity Testing of StreamFlowProcesses by BDS Test (Casestudy: Shaharchi River in Urmia) " Journal of Soil and Water, 21(2),25-37.  **47.Ghorbani, M.A.,** Fakherifard, A., Toloee, S., Nemati, S., (2011)" Determining Homogeneous Regions of Spatial Distribution of Suspended Load in Aji-Chai River Basin", Journal of Soil and Water knowledge, 21(2),15-24.  48.Ahmadin, A., Fakherifard, A**., Ghorbani, M.A.,** (2011)" Comparsion of Hybrid and Nash Models for Derivation ofInstantaneous Unit Hydrograph (Case Study: Lighvan Watershed) " Journal of Soil and Water knowledge,21(1),29-42.49.Soltani, A,. Olyaie, E., **Ghorbani, M.A.,** (2011)" Stage -Discharge Relationship Modeling in Rivers Using Intelligent Systems "Journal of Soil and Water Knowledge,20(4),15-31. 50.Gaheri, A., **Ghorbani, M.A.**, Delafroz, H., Malekani, L., (2011)" River flow evaluation using chaos theory " Iran Water Research Journal, 10(6), 17-186 .51.Soltani, A., **Ghorbani, M.A.,** Fakherifard, A., Darbandi, S., Farsadizadeh, D., (2011)" Genetic Programming and Its Application in Rainfall-Runoff Modeling" Journal of Soil and Water Knowledge,20(4),61-71.52.Hosseini, S.H,. Hosseinzadeh dalir, A., Farsadizadeh, D., Arvanagi,H., **Ghorbani, M.A.,** (2011)" The use of vanes in reducing scour around bridge piers rectangular with rounded nose " Journal of Civil Engineering and Surveying, 45(3),301-310.  53.Asadi, E., Fakherifard, A., **Ghorbani, M.A.,** (2011)"Development of Conceptual Rainfall- Runoff Model for Quick and Slow Runoff Simulation (Case Study: Navrood Basin, Iran)" Journal of Soil and Water Knowledge,22(1),61-75.54.Daneshvar Vosogi, F., Dinpaghoh, Y., Alami, M.T., Fakherifard, A., **Ghorbani, M.A.,** (2011)" Analysis of groundwater quality trend using Mann-Kendall Wiki " Journal of Civil and Environmental Engineering, 40(3),13-23.55.Fazaeli, H., Alami, M.T., **Ghorbani, M.A.,** Shakeri, M.S., (2011)," Control the swelling phenomenon of genetic programming in rainfall-runoff simulations "Journal of Civil and Environmental Engineering, 41(1),49-57.  **56.Ghorbani, M.A.,** Alami, M.T., Yousefi, P., Asadi, H., Zeinali, S.,(2011)" Performance of chaos theory in predicting suspended sediment (Case Study: Lighvan River)" Journal of Civil and Environmental Engineering, 41(1),58-66.57.Oladghaffari, A., Fakherifard, A., Nazemi, AH., **Ghorbani, M.A.,** (2010)" Hydraulic Flood Routing Using Dynamic Wave Method and Comparison with Linear and Nonlinear Hydrologic Muskingum Routing Methods(Case Study: Lighvan-Chai) " Journal of Soil and Water Knowledge,20(3),48-60.  58.Asadi, E., Fakherifard, A., **Ghorbani, M.A.,** (2010)"Tank Model Application to Derive Unit Hydrographs of Quick and Slow Runoff for Rainfall- Runoff Process (Case Study: Navrood Basin, Iran)" Journal of Soil and Water Knowledge,21(3),23-35.59.Farsadizadeh, D., Hosseinzadehdalir, A., **Ghorbani, M.A.,** Samadiyanfard, S.,(2010)"Estimation of Flow Velocity Distribution in Smooth-Bed Open Channels with a Smooth Bed Using Entropy Theory and Genetic Programming" Journal of Soil and Water Knowledge,21(3),61-74.60.Toloee, S., ., Hosseinzadehdalir, A., **Ghorbani, M.A.,** Fakherifard, A., Salmasi, F.,(2010) "Spatial and Temporal Estimation of Suspended Sediment Load in Aji-chay River Using Geostatistics and Artificial Neural Network" Journal of Soil and Water Knowledge,21(4),93-104.61.DannadehMehr, A., Oliyaee, E., **Ghorbani, M.A.,** (2010)"Suspended sediment load prediction based on river disarge and genetic programming" Watershed Management Researches Journal, 88, 44-54. |
| * **CONFERENCE PAPERS**

 More than 60 papers  |
| * **TEACHING**

Advance topic in Hydrology for PhD students 2010- PresentOptimization in Soil science PhD students 2014-2015Geostatistics for PhD students 2014-2015Engineering Hydrology for M.Sc students 2008-PresentAdanced technologies for M.Sc students 2007-PresentSurface Water Hydrology for B.Sc. students 2002-2004Computer Programming for B.Sc. students 2005-2010Hydrometeorology for B.Sc. students 2005-2010. |
| * **SUPERVISING OF PhD & M.Sc. STUDENTS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Title of the Thesis** | **Name of the Candidate** | **Date of Submission** | **Degree** |
| * Forecasting monthly rainfall using integrated support vector machine with firefly algorithm coupled with phase-space reconstruction
 | Hakime Asadi | 2017 | Ph.D |
| * Classification of annual evaporation of Iran Meteorological stations using cluster and Fuzzy cluster analysis, and Kohonen artificial neural networks.
 | Reza Mokarian(Department of Water Sciences & Engineering, Science and Research Branch, Islamic Azad University, Tehran, Iran.) | 2016 | Ph.D |
| * Evaporation modeling using hybrid Artificial Intelligent methods
 | Mehdi Akbari | 2017 | Ph.D |
| * Multi Model data fusion for groundwater modeling
 | Sahab Kavekar | 2017 | Ph.D |
| * Application of Mutual information and Gamma test for Input selection of Support Vector Machine Regression Model in Sofichay River flow Estimation
 | Fateme Akhoni Pourhosseini | 2016 | M.Sc. |
| * Evaluation of Satellite-based Precipitation Estimation Using Gauge Observations over Urmia Lake Basin
 | Erfan Jahangir | 2016 | M.Sc. |
| * Evaluation of climate change impacts on inflow to Urmia Lake Using SWAT Model (Case study: Aji Chay Watershed)
 | Haniyeh Samadluyi | 2016 | M.Sc. |
| * Impact of climate change on Lalyan reservoir inflow rate
 | Mohsen Ahmadi | 2016 | M.Sc. |
| * Estimation of Zarineh Roud River Discharge using Hybrid Artificial intelligence Models
 | Mohammad Isazadeh | 2015 | M.Sc. |
| * Suiable site selection for sub surface dams construction using GIS/RS
 | Hassan Khodaei | 2015 | M.Sc. |
| * Prediction of river flow with using the nearest neighbor algorithm based on probabilistic indicator complexity and collective approach
 | Hadi Sanikhani | 2015 | Ph.D |
| * Efficiency of Nakagami Distribution Function for Deriving Unit Hydrograph in sufi-chay Basin
 | Fateme Sohrabi  | 2014 | M.Sc. |
| * Rainfall-Runoff Simulation Using Support Vector Machine in Soufichay River Basin
 | Atefeh Azani | 2014 | M.Sc. |
| * Optimization of Spatial Distribution for Rain Guage using ARC-GIS (Case study : Maharloo- Bakhtegan Basin)
 | H.Momen Roomiani | 2014 | M.Sc. |
| * Comparasion parametric,MicroLEIS,Fuzzy Set the Theory and Analytical Hierarchy Process for land suitability evalution of some crops in KhajehRegion
 | Moslem Servati Khajeh | 2013 | Ph.D |
| * Analysis of rainfall-runoff process using chaos theory under climate change condition
 | Rasoul Jani | 2013 | Ph.D |
| * Classification of annual temperature and precipitation of Iran Meteorological stations using Fuzzy cluster analysis
 | Sorour Pourbabak | 2013 | M.Sc. |
| * Disaggregation of Lighvan Watershe's Rainfall Using Microcanonical Cascade Model
 | Mohammad Hasn Fazelifard | 2012 | M.Sc. |
| * Spatio-temporal estimation of groundwater table fluctuations using geostatistics and intelliigent models
 | Abouzar Salehi | 2012 | M.Sc. |
| * Impact of climate change on Rainfall-Runoff Processes of Sofichaii River Watershed Using Hidden Markov Model
 | Leila Naghipour | 2012 | M.Sc. |
| * The Evaluation of Morphologic Changes of River in Drainage Basins in Response to landuse changes (Case study: Lighvan Chay Catchment)
 | Somayeh Khaleghi | 2014 | Ph.D |
| * Temporal Disaggregation of Rainfall and Derivation of Instantaneous Unit H ydrograph using Entropy Theory
 | Hakimeh Asadi | 2012 | M.Sc. |
| * Water resources planning and management using Weap model (Case study: Marand Study Area)
 | Saeed Teymouri | 2011 | M.Sc. |
| * Estimation of Rivers Flow using Chaos Theory and Genetic Programming at Different Time Scales
 | Farnoosh Moradizadeh Kermani | 2010 | M.Sc. |
| * Rainfall-runoff modeling using genetic programming and stochastic differential equations in the Lighvan watershed
 | Ali Soltani | 2010 | M.Sc. |
| * Application if Grey system Theory for flood forecasting in the Lighvan River Basin
 | R.Mokarian | 2010 | M.Sc. |
| * River flow forecasting usinng Wavelet analysis and comparison with time series model (Case study: Lighvan Chay river)
 | Maryam Rostami | 2010 | M.Sc. |
| * Spatial and temporal estimation of suspended sediment load in Ajichai river watershed using Artificial Neural Network and Kriging and Cokriging models.
 | Samira Tolouei | 2008 | M.Sc. |
| * Wate Quality Analysis Simulation in Urmia Lale Shaharchay River Using the WASP Model
 | Majid Asadi Lour | 2007 | M.Sc. |

 |
| * **REVIEWING**

Journal of Hydrology, Theoretical and Applied Climatology, Water Resouces Management, Soft Computng, Neural Computing & Applications, KSCE Journal of Civil Engineering, Environmental Earth Sciences, International Journal of Sediment Research , [Atmospheric Pollution Research](http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&cad=rja&uact=8&ved=0CCIQFjAAahUKEwieyr2iw9zGAhWFchQKHUHAAZE&url=http%3A%2F%2Fwww.atmospolres.com%2F&ei=7P-lVZ6kAoXlUcGAh4gJ&usg=AFQjCNHyA2a91gR1Zt9SdYvXGkxTV2TZ4Q),[Computers & Geosciences .](http://www.google.com/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&cad=rja&uact=8&ved=0CB0QFjAAahUKEwi8_ITXw9zGAhXMwBQKHUrdBuU&url=http%3A%2F%2Fwww.journals.elsevier.com%2Fcomputers-and-geosciences%2F&ei=WgCmVbznD8yBU8q6m6gO&usg=AFQjCNHtWzfMRGKShOI2EESAGl0hVIkUnw&bvm=bv.97653015,d.bGg) |
| * **BOOK CHAPTERS**

**Ghorbani M.A**., Khatibi R., Asadi H., Yousefi P., “Inter-Compariosn of an Evolutionary Programming Model of Suspended Sediment Time-Series with Other Local Models”.2012. InTech publisher.Chapter 12. : 255-284. |
| * **REFEREES**

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| * **SKILLS & QUALIFICATIONS**

**Teamwork:** I have successfully undertaken various team projects within both academic and non-academic environments.**Computer Skills:** Matlab, *Mathematica*, Microsoft Office , Fortran, Spss, Minitab, Geostatistics**Operating Systems:** Windows |
| * **BOOKS:(in Persian)**
* *Mathematica* for water Engineering
* Application of Water Engineering Softwares
 |
| * **RESEARCH ACTIVITY**
* Four projects with East Azerbaijan Regional Water Authority, Lorestan State Regional Water Authority, Zanja State Regional Water Authority, Ardebil State Regional Water Authority.
* Two projects with University of Tabriz, Tabriz, Iran.
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