

# **Peyman Daneshkar Arasteh (Associate Professor)**

## **Curriculum Vitae**

### **Personal Data**

- 1- Name: *Peyman*
- 2- Surname: *Daneshkar Arasteh*
- 3- Father's name: *Gholamreza*
- 4- Date of birth: *April 9, 1969*
- 5- Place of birth: *Tehran, Iran*
- 6- Nationality: *Iranian*
- 7- Marital status: *Married*
- 8- Number of Children: *2*



### **Address**

#### ***1- Work Place 1:***

Water Sci. & Eng. Dept., School of Eng. & Tech., IK Intl.Univ., Qazvin, Iran

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#### ***2- Work Place 2:***

University of Applied Sciences and Technology, Felestin-Towhid Crossing, Qazvin, Iran

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## **Education**

PhD Irrigation Science and Engineering from Tarbiat Modarres University, Tehran, Iran, 2004.

**Dissertation:** "Development of a Distributed Model for Estimation of Regional Evaporation Using Remote Sensing Techniques (Case Study: Hamun Lakes of Sistan, Iran)".

Supervisor: Dr. M. Tajrishy

MSc Irrigation and Drainage Engineering from Tabriz University, Tabriz, Iran, 1995.

**Thesis:** "Study of Border Irrigation Hydraulics to Develop an Applicable Mathematical Model".

Supervisor: Dr. A.R. Movahed Danesh

BSc Irrigation Engineering from Shiraz University, Shiraz, Iran, 1992.

**Thesis:** "Rock Hydraulics and Infiltration Tests".

Supervisor: Dr. M. Javan

## **Experiences and Jobs**

### **University of Applied Sciences and Technology (UAST), Qazvin, Iran**

06/2016-Present Chancellor of University of Applied Sciences and Technology Qazvin Branch

### **Imam Khomeini International University (IKIU), Qazvin, Iran**

05/2015-Present Associate Professor of Water Sciences and Engineering Department, School of Engineering and Technology, IKIU

09/2011-05/2015 Assistant Professor of Water Engineering Department, School of Engineering and Technology, IKIU

### **University of California, Irvine, USA**

09/2010-09/2011 Visiting Professor of Center of Hydro-climatology & Remote Sensing (CHRS), Civil & Environmental Engineering, Henry Samueli School of Engineering, UC Irvine, Irvine, USA

### **IKIU, Qazvin, Iran**

09/2005-09/2010 Assistant Professor of Water Engineering Department, School of Engineering and Technology, IKIU

01/2008-09/2010 Dean of School of Engineering and Technology, IKIU  
01/2006-01/2008 Deputy of Education and Research of School of Engineering and Technology, IKIU

**Soil Conservation and Watershed Management Research Institute (SCWMRI), Tehran, Iran**

03/1994-09/2005 Research Staff of SCWMRI  
06/2004-09/2005 Deputy of Hydrology and Water Resources Department, SCWMRI  
04/2003-06/2004 Research Staff of Research and Development Department, SCWMRI  
06/2001-04/2003 Head of Mathematical Modeling Department, SCWMRI  
04/1997-06/2001 Research Staff of Water Resources and Flood Management Department, SCWMRI  
03/1994-04/1997 Research Staff of Mathematical Modeling Department, SCWMRI

**Sharif University of Technology, Remote Sensing Research Center, Tehran, Iran**

01/2014-Present Research Member of Remote Sensing Research Center

**Sharif University of Technology, Water and Energy Research Institute, Tehran, Iran**

07/2013-Present Research Member of Water and Energy Research Institute

**UNESCO Chair on Water and Environmental Management for Sustainable Cities, Sharif University of Technology, Tehran, Iran**

01/2013-Present Head of Department of Application of GIS and Remote Sensing

**Sharif University of Technology, Environmental and Water Research Center, Tehran, Iran**

09/1998-Present Research Member of Environmental and Water Research Center

**Jihad Water and Watershed Research Company, Tehran, Iran**

10/1995-08/2000 Coordinator of Water Resources Engineering Department

### **Research Interests**

1. Application of Remote Sensing in Energy Balance Modeling
2. Mathematical Modeling of Surface and Groundwater Flow
3. Drought Researches, Integrated Water Resources Management and Water Productivity
4. Application of Remote Sensing in Agriculture, Hydrology and Water and Natural Resources
5. Application of Remote Sensing in Dust Detection and Climate Change

### **Honors and Awards**

- |      |  |
|------|--|
| 1992 | Top Student within BSc Graduates, Shiraz University                                      |
| 1995 | Top Student within MSc Graduates, Tabriz University                                      |
| 1998 | First Rank in PhD Entering Exam and Qualification Exam, Tarbiat Modarres University      |
| 2000 | Best Paper of Geomatic-79 Conference, Tehran, Iran                                       |
| 2002 | Superior Head of Department within SCWMRI Research Departments                           |
| 2003 | Superior Head of Department within SCWMRI Research Departments                           |
| 2004 | Top Student within PhD Graduates, Tarbiat Modarres University, Tehran                    |
| 2008 | Superior Researcher of School of Engineering and Technology, IK International University |
| 2009 | Superior Researcher of School of Engineering and Technology, IK International University |
| 2010 | Superior Researcher of School of Engineering and Technology, IK International University |
| 2010 | One year fellowship (award) as sabbatical leave, IK International University             |
| 2017 | One year fellowship (award) as sabbatical leave, IK International University             |

### **Certifications and Testimonies**

- |      |  |
|------|--|
| 1999 | Application of Remote Sensing and Geographic Information Systems in Civil Engineering a Short Course, Water and Soil Engineering in the Field of Geomatic and Civil Engineering, K.N. Toosi University-SCWMRC-ITC Joint Program, Tehran, Iran, Aug. 1-Sep. 1, 1999 |
| 2000 | Short Course on Application of Geostatistics in Earth Sciences, Iranian National Cartographic Center, Tehran, Iran, May, 2000  |
| 2001 | Short Course on Application of GIS and RS in Surface Water Evaporation Research and Investigations, Zabol University, Zabol, Iran, March, 2001   |

- 2003 Short Course on Parameter Estimation and Predictive Uncertainty Analysis, ShirazUniversity, Shiraz, Iran, October 18-20, 2003
- 2004 Short Course on Application of Stochastic Models in Hydrology and Water Resources, Shahrekord University, Shahrekord, Iran, September 6-8, 2004
- 2006 Short Course on Application of Remote Sensing in Soil Salinity Mapping, IRNCID, Tehran, Iran, November, 2006
- 2006 Short Course on 3D Image Processing, University of Central Lancashire, Preston, UK, September, 2006
- 2007 Short Course on Application of Satellite Imagery in Climate Change Investigations, IRNCID, Tehran, Iran, February, 2007
- 2008 SWAT Modeling and Application in Integrated Land and Water Resources Management Short Course, Water Engineering Institute, Tehran, Iran, May 12-18, 2008
- 2010 A short Course on Integrated Water Resources Management, Water Engineering Institute, Tehran, Iran, June 1, 2010
- 2010 DRAINMOD Short Course, CSBE-CIGR, Quebec, Canada, June 12-13, 2010
- 2010 Workshop on Urban Flood Management, Water Engineering Institute, Tehran, Iran, August 2-4, 2010
- 2010 Challenges in the Development of Solar Energy: Joint Iranian/US Workshop, UC Irvine, Irvine, USA, November 10-12, 2010
- 2010 Annual International Scientific Research Workshop, November 16, 2010, UCI, Irvine, CA, USA
- 2011 NSF Day, University of San Diego, January 19, 2011, San Diego, CA, USA
- 2011 Enhancing the Future of the California Coast, March 4, 2011, UCI, Irvine, CA, USA
- 2011 Tax Workshop, March 9, 2011, IRS, Irvine, CA, USA
- 2011 How to Write a Winning NSF CAREER Proposal, March 24, 2011, UCI, Irvine, CA, USA
- 2011 Workshop on Evapotranspiration, April 5-7, 2011, NASA-USDA, Silver Spring, MD, USA
- 2011 Global Drought Monitoring Workshop, April 12-13, 2011, NASA, Silver Spring, MD, USA
- 2011 Sea Level Rise and Coastal Flooding, May 3, 2011, Aquatic Academy, Long Beach, CA, USA
- 2011 Water Resources Management 2011, May 24-25, 2011, Wessex Institute of Technology & UC Riverside, Riverside, CA, USA
- 2011 River Basin Management 2011, May 27-29, 2011, Wessex Institute of

Technology & UC Riverside, Riverside, CA, USA

- 2011 Sustainability in Southern California: Sustainability and Water, June 3, 2011, UCI, Irvine, CA, USA
- 2011 NASA Energy and Water cycle Study (NEWS) Workshop, June 13-15, 2011, UCI, Irvine, CA, USA
- 2011 PC HYSPLIT Short Course, June 22-24, 2011, NOAA, Silver Spring, MD, USA
- 2011 ESRI International User Conference and Workshop, Understanding Our World, July 11-15, 2011, UC San Diego, San Diego, CA, USA
- 2011 21<sup>st</sup> International Congress on Irrigation and Drainage, October 15-23, 2011, ICID, Tehran, Iran
- 2011 1<sup>st</sup> National Agro-Climatology and Water Management in Agriculture, ICID, November 22-23, 2011, Tehran, Iran
- 2013 Fondation des Treilles and the U.S.- France Academies of Sciences workshop on: U.S., Iranian, and European Experiences in Assessing and Managing Water Resources, March 4-9, 2013, Tourtour, France
- 2014 The 1<sup>st</sup> National Meeting on RS-based Evapotranspiration Estimation Methods in Iran, November 23-25, 2014, NRSC, Yazd, Iran
- 2016 Professions Workshops on the Role of Dams in Flood Management and Safe Pperation Considerations According to Recent Floods, July 14, 2016, IRCOLD and Water Resources and Energy Development Co., Ministry of Energy, Tehran, Iran.

### **Webinars and Online Courses**

- 2011 Open Text Book and Courses, Feb. 10, 2011, UCI, Irvine, CA, USA
- 2011 Everything you wanted to know about transfer students, Feb. 17, 2011, UCI, Irvine, CA, USA
- 2011 Design of Experiments Using Statgraphics Centurion, April 27, 2011, Statpoint Technologies, New York, NY, USA
- 2011 Regression Analysis Using Statgraphics Centurion, May 12, 2011, Statpoint Technologies, New York, NY, USA
- 2011 Mathematical Modeling with MATLAB Products, May 20, 2011, Mathworks, New York, NY, USA
- 2011 Understanding the Global Drought Monitor Portal, May 25, 2011, University of Reading, UK
- 2011 Analysis of Variance Using StatgraphicsCentrion, July 13, 2011, Statpoint Technology, New York, NY, USA

## **Professional Activities**

### **Professional Societies Memberships**

- 1- European Geosciences Union (EGU)
- 2- Watershed Management Society of Iran (WMSI)
- 3- Iranian Hydraulic Association (IHA)
- 4- Soil Science Society of Iran (SSSI)
- 5- Iranian Water Resources Association (IR-WRA)
- 6- Iranian National Committee on Irrigation and Drainage (IRNCID), Drainage and Environmental Working Group (DEWG)
- 7- Iran Water and Wastewater Standard Council (IWWSC), Water Resources Management Committee (WRM)
- 8- Agricultural and Natural Resources Engineering Regulation Organization, Tehran branch (ANRERO) with the ID NO. 0708202971

### **Editorial**

2004-2010	Referee Board of Journal of Water and Watershed Management (Persian)
2006-Present	Referee Board of Journal of Water and Wastewater (Persian)
2006-2007	Referee Board of Journal of Natural Resources (Persian)
2006-2012	Referee Board of Journal of Applied Sciences
2006-2012	Referee Board of International Journal of Environmental Sciences
2006-2012	Referee Board of Journal of Asian Earth Science
2007-2012	Referee Board of International Journal of Civil Engineering
2008-Present	Referee Board of Journal of Agricultural Research (Persian)
2011-2015	Referee Board of Journal of Water Science Research
2012-2015	Referee Board of Journal of Arid Environment
2012-Present	Referee Board of Iranian Journal of Irrigation and Water Engineering (Persian)
2012-Present	Referee Board of Journal of Agricultural Water Management
2012-Present	Referee Board of Iranian Journal of Soil and Water Research (Persian)
2012-Present	Referee Board of Journal of Soil and Water (Persian)
2012-Present	Referee Board of Journal of Water and Irrigation Management (Persian)
2012-Present	Referee Board of Iranian Journal of Irrigation and Drainage (Persian)

2012-Present	Referee Board of Iran Water Research Journal (Persian)
2012-Present	Referee Board of Journal of Water Research in Agriculture (Persian)
2014-Present	Referee Board of International Journal of Environmental Science and Technology
2014-2015	Referee Board of KSCE Journal of Civil Engineering
2014-2015	Referee Board of International Journal of Sediment Research
2010-Present	Referee Board of Watershed Engineering and Management (Persian)
2010-Present	Referee Board of Iranian Journal of Watershed Management and Science(Persian)
2015-Present	Editorial Board of Watershed Management Research (Persian)
2016-Present	Editorial Board of Iranian Journal of Soil and Water Research (Persian)

### **Professional Committees and Panels**

2016	Scientific Secretariat of Qazvin Province research and technology celebration week
2016-Present	Member of Qazvin Province Water Resources protection Council, Qazvin province Chancellor office.
2015-Present	Delegate of IK International University in the Committee of Planning of 6 <sup>th</sup> National Development Program in Ministry of Energy and Water Working Group of Committee on development of water technologies, Deputy of Science and Technology of President
2014-Present	Member of Water Working Group of Committee on development of water technologies, Deputy of Science and Technology of President
2014-Present	Member of Steering Committee of Qazvin Plain Restoration (Think Tank on Water), Qazvin Province Chancellor Office.
2014-Present	Member of Steering Committee of Urmia Lake Restoration Program, 1 <sup>st</sup> Vice President office.
2010-Present	Member of Reviewers Board of Iran National Academy of Science Foundation (INSF)
2009-2010	Member of Technical Committee of District 22 of TehranMunicipality
2008-2016	Delegate of IK International University in Water Research Committee, Qazvin Water Board
2008-2010	Delegate of IK International University in the Committee of Planning of 5 <sup>th</sup> National Development Program, Agricultural District of Qazvin Province
2007-Present	Member of the Water Resources Management Committee of Water and Wastewater Standard Council, Ministry of Energy
2007-2010	Delegate of IK International University in Land and Territory Management



and Environment Committee, Qazvin Province Chancellor office.

2007-2010	Delegate of IK International University in Employment and Investment Committee, Qazvin Province Chancellor office.
2007-2008	Delegate of IK International University in National Draught Strategy Planning Committee, Ministry of Jihad Agriculture
2005-Present	Member of Drainage and Environment Working Group, Iranian National Committee on Irrigation and Drainage
2004-2005	Member of Assessment Committee of Hydrology and Water Resources Planning, Soil Conservation and Watershed Management Research Institute
2001-2005	Member of Assessment Committee of Flood Management Planning, Soil Conservation and Watershed Management Research Institute
2001	Member of Assessment Committee of Water Resources Engineering and Flood Management Planning, Soil Conservation and Watershed Management Research Institute

#### **University Committees and Panels**

2016	Chief of research and technology week celebration in UAST Qazvin Branch
2016	Responsible person for nominating best national student candidacy for 2016 in UAST
2016-Present	Head of Education Council and Special Issues Commission of UAST Qazvin Branch
2016-Present	Head of Research and Technology Council of UAST Qazvin Branch
2016-Present	Head of Education Assessment and Control Committee of UAST Qazvin Branch
2015-Present	Member of Primitive Investigation Committee for Faculty Members Scientific Violations, Ministry of Science, Research and Technology
2014-Present	Member of Executive Board of Academic Positions-Scientific Qualification
2014-2016	Member of Students Scientific Violations Jury
2012-2014	Member of International Affair Council
2008-Present	Member of Education Planning Council
2007-Present	Member of Higher Education Assessment and Control Committee, Ministry of Science, Research and Technology
2007-2012	Member of Professors' Promotion Committee in Engineering and Technology
2007-2010	Member of Higher Education Council
2007-2010	Member of University Council

2006-2007	Member of Education Executive Council
2006-2007	Member of Research Executive Council

### **Published Peer Reviewed Journal Papers**

- 1- Mehdikhani, H., B. Saghafian, and **P.D. Arasteh**, 2016, A new damage-probability approach for risk analysis of rain-fed agriculture systems under meteorological drought, *KSCE Journal of Civil Engineering*, 20(7):1-9.
- 2- Hashemi Tameh, M.S., H. Mazandaranizadeh, and **P.D. Arasteh**, 2016, A Novel Solution to Define the Optimum Number and Location of New Wells to Improve Groundwater Level Map, *Procedia Engineering*, 154(2): 252-259.
- Ghajarnia, N., **P.D. Arasteh**, S. Araghinejad, and A. Liaghat, 2016, A hybrid Bayesian-SVD based method to detect false alarms in PERSIANN precipitation estimation product using related physical parameters, *Journal of Hydrology*, 538:640-650.
- 3- Khoshnavaz, F. T. Honar, and **P.D. Arasteh**, 2016, Estimation of agricultural water productivity using remote sensing technology (Case study: Qazvin plain irrigation network), *Water and Soil Sciences*, 25(4/1):57-68 (in Persian with English abstract).
- 4- Ramezani Khojeen, A, M.M. KheirkhahZarkesh, **P.D. Arasteh**, A. Moridi, and R. Alimohammadi, 2016, Sensitivity analysis of calculated evapotranspiration using daily energy balance model and comparing with SEBAL model, *Iran Water Resources Research*, 12(1): 18-28 (in Persian with English abstract).
- 5- Bokaie, M., M.M. KheirkhahZarkesh, **P.D. Arasteh**, and A. Hosseini, 2016, Assessment of urban heat island based on the relationship between land surface temperature and land use/land cover in Tehran, *Sustainable Cities and Society*, 23:94-104.
- 6- Kaghazloo, A.S., A. Sotoodehnia, and **P.D. Arasteh**, 2015, Evaluating implemented linear sprinkler irrigation systems in Qazvin Plain, *Water and Irrigation Management*, 5(1): 129-137 (in Persian with English abstract).
- 7- Zadesh Porgoo, R., H. Mazandaranizadeh, and **P.D. Arasteh**, 2015, Optimization of subsurface drain design parameters to reduce environmental hazards for steady state condition, *Journal of Water Research in Agriculture*, 29(1): 117-128 (in Persian with English abstract).
- 8- Ghajarnia, N., A. Liaghat, and **P.D. Arasteh**, 2015, Comparison and evaluation of high resolution precipitation estimation products in Urmia Basin-Iran, *Atmospheric Research*, 158-159: 50-65.
- 9- Sotoodehnia, A., M. Jafari, and **P.D. Arasteh**, 2015, The role of Qazvin central marsh interceptor drain in controlling shallow groundwater salinity, *Iranian Journal of Soil and Water Research*, 45(4): 447-452. (in Persian with English abstract)
- 10- Sotoodehnia, A., E. Noroozpour, and **P.D. Arasteh**, 2015, A laboratory test on the effect of subsurface drain installation depth on nitrate leaching from a loamy sand soil, *Journal of Water Research in Agriculture*, 28(3): 625-634. (in Persian with English abstract)
- 11- Sotoodehnia, A., F. Razi, and **P.D. Arasteh**, 2015, Using SEEP/W numerical model to simulate drain installation depth effects on drain water salinity improvement, *Iranian Journal of Irrigation and Drainage*, 8(1): 187-196. (in Persian with English abstract)

- 12- Ghajarnia, N., A. Liaghat, and **P.D. Arasteh**, 2014, Verifying precipitation data of TAMAB and meteorology institute in Urmia Basin, *Journal of Water and Soil Resources Conservation*, 4(1): 91-109(in Persian with English abstract).
- 13- Gharadaghi, M.H., **P.D. Arasteh**, A. Liaghat, and A. Sotoodehnia, 2014, Ditermination of the optimum time on water table management to decrease nitrogen lossin drained agricultural lands, *Iranian Journal of Soil and Water Research*, 45(3): 293-297. (in Persianwith English abstract)
- 14- Shokouhi, A.R., T. Raziei, and **P.D. Arasteh**, 2014, On the effects of climate change and global warming on water resources of Iran, *International Bulletin of Water Resources & Development*, 2(4): 1-9.
- 15- Doosti, A., A. Sotoodehnia, A. Liaghat, and **P.D. Arasteh**, 2014, Simulation of dry drainage to determine the ratio of the width of non-cropped strip, *Iranian Journal of Soil and Water Research*, 45(1): 47-54. (in Persianwith English abstract)
- 16- Jamshidi, M., **P.D. Arasteh**, and A. Sotoodehnia, 2014, Study of the effects of activated carbon on hydrodynamic properties of a sandy porous media, *Iranian Journal of Soil and Water Research*, 45(1): 11-17. (in Persianwith English abstract)
- 17- Kaviani, A., T. Sohrabi, and **P.D. Arasteh**, 2013, Agricultural water productivity estimation for Qazvin Plain using MODIS and AVHRR images and lysimeter data, *Journal of Iran Water Research*, 7(13): 1-10.(in Persianwith English abstract)
- 18- Kaviani, A., T. Sohrabi, and **P.D. Arasteh**, 2013, Estimation of land surface temperature using NDVI in MODIS and Landsat ETM+ imageries, *Journal of agricultural meteorology*, 1(1): 10-21. (in Persianwith English abstract)
- 19- Razi, F., A. Sotoodehnia, **P. D. Arasteh**, and M. Akram, 2012, A laboratory test on the effects of drain installation depth on drain water salinity (from a clay-loam profile), *Iranian Journal of Soil and Water Research*, 43(3): 281-288 (in Persian with English abstract).
- 20- Kaviani, A., T. Sohrabi, and **P.D. Arasteh**, 2011, Evapotranspiration and water productivity estimation using SEBAL algorithm and comparison with lysimeter data, *Iranian Journal of Irrigation and Drainage*, 2(5): 165-175. (in Persianwith English abstract)
- 21- Zare, A.H., V.M. Bayat, and **P.D. Arasteh**, 2011, Forecasting nitrate concentration in groundwater using artificial neural network and linear regression models, *International Agrophysics*, 25: 187-192.
- 22- Kaviani, A., T. Sohrabi, and **P.D. Arasteh**, 2011, Estimation of productivity of agricultural water in Qazvin plain using images of MODIS and AVHRR, *Ecology, Environment and Conservation*, 17(1): 13-21.
- 23- Rahmati, S.H., J. Prohemmat, **P.D. Arasteh**, and M. Heydarizadeh, 2010, Yield estimation and homogenizingin north-west ungauged sites of Iran by applying Regional Growth Curve, *Irrigation and Water Engineering*, 1(1): 45-56 (in Persian with English abstract).
- 24- **Arasteh, P.D.** and M. Tajrishy, 2008, Modeling of free water surface evaporation using the volume balance method in Chahnimeh Reservoir, Iran, *Journal of Applied Sciences*.
- 25- Shokoohi, A.R. and **P.D. Arasteh**, 2008, Comparison of aquifer hydraulic conductivity estimation methods for using in simulation models, *Journal of Agricultural Engineering Research*, 9(2): 95-112 (in Persian with English abstract).

- 26- Raziei, T., **P.D. Arasteh**, R.A. Akhtari, and B. Saghafian, 2007, Meteorological and climatic drought analysis in Sistan-Baloochestan Province using SPI index and Markov chain model, *Iran Water Resources Research*, 3(1): 25-35 (in Persian with English abstract).
- 27- Raziei, T., **P.D. Arasteh**, and B. Saghafian, 2007, Spatial and temporal pattern of meteorological drought in Sistan-Baloochestan Province, *The Scientific Journal of Agriculture*, 30(1): 85-99 (in Persian with English abstract).
- 28- **Arasteh, P.D.**, M. Tajrishy, and M. Mirlatifi, 2007, Study of wind effects on free water evaporation form Chahnimeh Reservoir-Sistan using the Daltonian method, *Sharif Journal of Science and Technology*, 37: 13-20 (in Persian with English abstract).
- 29- Sarreshtehdari, A., **P.D. Arasteh**, and A.R. Telvari, 2006, Using information technology in management and decision making processes, *Journal of Water and Soil Conservation*, 2(1): 35-41 (in Persian with English abstract).
- 30- **Arasteh, P.D.**, M. Tajrishy, and B. Saghafian, 2005, Determination of surface temperature in Sistan region using remote sensing technology, *Water and Watershed*, 2(2): 13-21 (in Persian with English abstract).
- 31- Raziei, T., **P.D. Arasteh**, B. Saghafian, 2005, Climate variability and change in arid and semi-arid regions of Iran, *Water and Wastewater*, 54: 73-81 (in Persian with English abstract).
- 32- **Arasteh, P.D.**, M. Tajrishy, B. Saghafian and M. Mirlatifi, 2005, Statistical model of free water surface evaporation using the volume balance method in Chahnimeh Reservoir, Sistan-Iran, *Pajouhesh-va-Sazandegi*, 18(3): 2-14 (in Persian with English abstract).
- 33- **Arasteh, P.D.**, M. Tajrishy, M. Mirlatifi, and B. Saghafian, 2004, Necessity of revision on free water surface evaporation estimation models in arid areas with regional advection: Chahnimeh Reservoir as a case study, *Journal of Agricultural Engineering Research*, 5(18): 37-58 (in Persian with English abstract).
- 34- **Arasteh, P.D.** and M.A. Banihashemi, 2004, Possibility of application of kinematic wave model to simulate overland flow on flood spreading plots, *Pajouhesh-va-Sazandegi*, 16(4): 50-56 (in Persian with English abstract).
- 35- **Arasteh, P.D.**, 1995, Simulation of advance phase in furrow irrigation by “ZIFA” model with standard cross section, *Iran Agricultural Research*, 14(2), 237-248.

### **Published Conference Papers and Presentations**

1. Azhari, H.R., **P.D. Arasteh** and A.R. Shokoohi, 2016, Application of multi-criteria decision making methods to assess drought coping scenarios in Lake Urmia, The 2<sup>nd</sup> National Conference of Water Crisis in Iran and in the Middle East, March 12-13, 2016, Shiraz, Iran.
2. **Arasteh, P.D.**, 2015, Groundwater Resources Supply-Demand Trend Analysis, Case Study: Southern Part of Caspian Sea, The Proceedings of the Scientific Conference on Water, Source of Life, October 17-18, 2015, Qazvin, Iran.
3. Bijankhan, M. and **P.D. Arasteh**, 2015, Wastewater treatment using parallel jets, The Proceedings of the Scientific Conference on Water, Source of Life, October 17-18, 2015, Qazvin, Iran.

4. Ghajarnia, N., **P.D. Arasteh**, A.M. Liaghat, S. Araghinejad, 2015, Systematic and random error decomposition of PERSIANN precipitation estimations over Urmia basin, The Proceedings of the Scientific Conference on Water, Source of Life, October 17-18, 2015, Qazvin, Iran.
5. Mazandaranizadeh, H., **P.D. Arasteh**, M.S. Hashemi Tameh, 2015, Offering accurate method for forecasting groundwater level, The Proceedings of the Scientific Conference on Water, Source of Life, October 17-18, 2015, Qazvin, Iran.
6. Mazandaranizadeh, H., **P.D. Arasteh**, and M.S. Hashemi Tameh, 2015, Optimal design of observation well network for groundwater surfaces estimation using genetic algorithm: case study qazvin plain aquifer province, The 42<sup>nd</sup> IAH Congress, Hydrogeology: Back to the Future, September 11-16, Rome, Italy.
7. Mazandaranizadeh, H., M.S. Hashemi Tameh, and **P.D. Arasteh**, 2015, Optimal location of new rainfall gauges for areal annual precipitation, The 42<sup>nd</sup> IAH Congress, Hydrogeology: Back to the Future, September 11-16, Rome, Italy.
8. Mirasheh, M. and **P.D. Arasteh**, 2015, Estimation of crop water requirements in irrigated areas using remote sensing techniques (Case study in Hirmand River Basin, Afghanistan), The 13<sup>th</sup> National Conference on Irrigation & Evaporation Reduction, August 25-27, 2015, Kerman, Iran.
9. Mirasheh, M. and **P.D. Arasteh**, 2015, Estimation of surface and air temperature using remote sensing techniques (Case study in Hirmand River Basin, Afghanistan), the 3<sup>rd</sup> National Conference on Iran Environmental and Agricultural Researches, August 12, 2015, Hamedan, Iran.
10. Sotoodehnia, A., A. Doosti, A. Liaghat, and **P.D. Arasteh**, 2015, Simulation of dry drainage to determine the ratio of the width of non-cropped to cropped strip, The proceedings of World Environmental and Water Resources Congress 2015: Floods, Droughts, and Ecosystems, May 17-21, 2015, ASCE, Austin, Texas, USA.
11. Eslami, A.R., P.D. Arasteh, A.A. Alamolhoda, 2015, The study and enumeration of strategic water technologies using conceptual model, The proceedings of National Irrigation and Drainage Congress, May 13-14, 2015, Mashad, Iran (in Persian).
12. Mahmoodi Anzabi, A., S.S. Ghazizadeh Hashemi, E. Jalilvand, **P.D. Arasteh**, 2015, Evaluation of the efficiency of apparent thermal inertia method in estimation of surface moisture using MODIS images (Case study: AstanehQods farm, Mashad, Iran), Proceedings of the 10<sup>th</sup> International Conference on Civil Engineering, May 5-7, 2015, Tabriz, Iran(in Persian).
13. Mazandaranizadeh, H., **P.D. Arasteh**, M.S. HashemiTameh, 2015, Comparison of interpolated monthly precipitation using Kriging and ANN methods, Proceedings of the 10<sup>th</sup> International Conference on Civil Engineering, May 5-7, 2015, Tabriz, Iran(in Persian).
14. Mazandaranizadeh, H., **P.D. Arasteh**, M.S. HashemiTameh, 2015, Artificial neural network parameters selection to estimate monthly precipitation, Proceedings of the 10<sup>th</sup> International Conference on Civil Engineering, May 5-7, 2015, Tabriz, Iran(in Persian).
15. Mazandaranizadeh, H., **P.D. Arasteh**, M.S. HashemiTameh, 2015, Comparison of kriging and ANN-MLP methods to spatial forecast of annual rainfall in midsize regions, Proceedings of the National Conference on Geology and Exploration of Resources, March 11, 2015, Shiraz, Iran(in Persian).
16. Doosti, A., A. Sotoodehnia, A. Liaghat, and **P.D. Arasteh**, 2014, Dry drainage simulation to determine non-cropped width, Proceedings of the 1<sup>st</sup> Congress on Iran Soil and Water Engineering and Management, May 20-21, 2014, Karaj, Iran(in Persian).

17. Zarabi, M.M., S. AbediSamarein, S. Mafakheri and **P.D. Arasteh**, 2013, Effect of different irrigation dozes on morphological factors and essence percent of *Lavandulaanguustifolia*, Proceedings of the 1<sup>st</sup> National Conference on Medicine Herbals and Sustainable Agriculture, October 10, 2013, Hamedan, Iran(in Persian).
18. **Arasteh, P.D.**, S. Morid, and F. Fatahian, 2013, Trends in hydro-climatic variables and land use of Lake Urmia Basin, Proceedings of the U.S., Iranian, and European Experience in Assessing and Managing Water Resources Meetings, March 4-8, 2013, Fondation des Treilles, Nice, France.
19. **Arasteh, P.D.**, 2011, Global drought monitoring using PERSSIAN and SPI, NASA Workshop on Global Drought Monitoring, April 12-13, Silver Spring, MD, USA.
20. **Arasteh, P.D.**, 2011, Global precipitation trend analysis using PERSSIAN, NASA Workshop on Global Drought Monitoring, April 12-13, Silver Spring, MD, USA.
21. **Arasteh, P.D.**, F. Khoshnavaz, and T. Honar, 2011, Comparison of remotely sensed LAI and PAR with ground measurements in Qazvin Plain, Iran, NASA-USDA workshop on Evapotranspiration, April 5-7, 2011, Silver Spring, MD, USA.
22. **Arasteh, P.D.**, 2010, Soil salinity change detection in irrigated area under Qazvin Plain Irrigation Network using satellite imagery, Proceedings of 17<sup>th</sup> World Congress of the International Commission of Agricultural Engineering (CIGR) and 9<sup>th</sup> International Drainage Symposium, June 14-17, 2010, Quebec, Canada.
23. Azari, A., M. Ehsani, M.J. Adimi, M. Akram, Z. Bakhtyari, M. Parsinezhad, E. Pazira, A.R. Hassanoghli, **P.D. Arasteh**, M.R. Zarnekabi, and A.M. Liaghat, 2010, Khuzestan and subsurface drainage challenges in the future, Proceeding of the 6<sup>th</sup> Workshop on Drainage and Environment, Jan. 6, 2010, Ahwaz, Iran, IRNCID (in Persian).
24. **Arasteh, P.D.**, T. Tajrishy, and M. Emadzadeh, 2010, Estimation of evapotranspiration and water productivity in catchment scale using remote sensing: case study in QarasuBasin, Proceedings of 5<sup>th</sup> National Congress on Civil Engineering, May 4-6, 2010, Mashad, Iran (in Persian).
25. **Arasteh, P.D.**, 2009, Landscape metrics and monitoring vegetation cover change and its effects on formation of heat islands using remote sensing technology, Proceedings of the 8<sup>th</sup> International Congress on Civil Engineering, May 11-13, 2009, Shiraz, Iran (in Persian).
26. Esmaili, O., M. Tajrishy, and **P.D. Arasteh**, 2009, Zonation of dust source potential areas in Iran and Investigation on severity, duration and spatial extent of dust storms using remote sensing technology, Proceedings of the 8<sup>th</sup> International Congress on Civil Engineering, May 11-13, 2009, Shiraz, Iran (in Persian with English abstract).
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28. **Arasteh, P.D.**, 2008, Spatio-temporal trend analysis of precipitation and temperature using remote sensing and zonation of climate change affected area, Proceedings of Workshops on Impacts of Climate Change on Water Resources Management, IRNCID Publ. No. 124: 111-121 (in Persian).
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31. Esmaili, O., M. Tajrishy, and **P.D. Arasteh**, 2006, Evaluation of dust sources in Iran, through remote sensing and synoptical analysis, Proceedings of the AECRIS 2006 Conference, Preston, UK, 136-143.
32. Esmaili, O., M. Tajrishy, and **P.D. Arasteh**, 2006, Results of the 50 year ground-based measurements in comparison to satellite remote sensing of two prominent dust sources located in Iran, Proceedings of the SPIE 2006 Conference on Remote Sensing of Clouds and the Atmosphere XI, Stockholm, Sweden, Vol. 6362, 636209-1 – 636209-12.
33. Raziei, T., **P.D. Arasteh**, and B. Saghafian, 2005, Annual rainfall trend in arid and semi-arid regions of Iran, Proc. of ICID 21th European Regional Conference, Frankfurt (Oder) and Slubice, Germany and Poland.
34. **Arasteh, P.D.** and M. Mianehrow, 2004, Water deficit and drought forecast by a Markov-Chain model: case study in Central Iran, Proc. of the 4th International Iran and Russia Conference in Agriculture and Natural Resources, Shahrekord, Iran, 1165-1171.
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40. Mianehrow, M., **P.D. Arasteh** and A.R. Shokoohi, 2003, Identification and prediction of desertification by time series analysis in central watershed of Iran, Proc. of the 7th International Conference on Development of Dry Lands, ICARDA, Tehran, Iran.
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45. Raziei, T., A.R. Shokoohi, B. Saghafian and **P.D. Arasteh**, 2002, Drought monitoring using SPI index in YazdProvince, Proc. of the 8th International Conference on Understanding Future Dryland Environmental Changes from Past Dynamics, YazdUniversity, Yazd, Iran.
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47. Raziei, T., A.R. Shokoohi, B. Saghafian, **P.D. Arasteh**, and S. Daneshvar, 2002, Derivation of drought severity-duration-frequency curves and development of drought iso-severity maps in southeast of Iran, Proc. of the 1st National Conference on Water Crisis Mitigation Strategies, Zabol, Iran (in Persian with English abstract).
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49. **Arasteh, P.D.**, A.R. Shokoohi, A.M. Hassanvand, and B. Saghafian, 2000, Using GIS and geostatistics in groundwater modeling, Proc. of Geomatic-79 Conference, Tehran, Iran, 43-55 (in Persian with English abstract).
50. **Arasteh, P.D.** and S.R. Vahhadj, 1997, Mathematical modeling of shallow water flow in a flood spreading system, Proc. of the 8th International Conference on Rain Water Catchment Systems, Tehran, Iran, 173-181.
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52. **Arasteh, P.D.**, 1995, Diversion of flood water to irrigate desert lands, Proc. of the 3rd Student Conference, Tabriz, Iran (in Persian).
53. **Arasteh, P.D.**, 1995, Dam break flood routing, Proc. of the 3rd Student Conference, Tabriz, Iran (in Persian).
54. **Arasteh, P.D.**, 1994, Analytical zero inertia model in furrow irrigation: advance phase, Proc. of the 1st Conference on Application of Computer in Agricultural Sciences, Tabriz, Iran, 126-132 (in Persian).

### **Published Books and Contributions**

- 1- Sotoodehnia, A., A. Kabiri, P.D. Arasteh Jr., and **P.D. Arasteh Sr.**, 2011, Essential English for students of water engineering, SAMT Publishing organization, Tehran, Iran.



- 2- **Arasteh, P.D.** and A.R. Shokoohi, 2008, Drainage principles and practices, Tehran Dibagaran Artistic and Cultural Institute, Tehran, Iran (in Persian).
- 3- Shokoohi, A.R. and **P.D. Arasteh**, 2007, Irrigation principles, practices and systems design, Tehran Dibagaran Artistic and Cultural Institute, Tehran, Iran (in Persian).
- 4- **Arasteh, P.D.**, 2005, Minimum Environmental Flow Regimes, In: J.H. Lehr (Ed.), Encyclopedia of Water, Vol. 3, John Wiley and Sons Inc., USA, 166-168.
- 5- **Arasteh, P.D.**, 2005, Large Area Surface Energy Balance Estimation Using Satellite Imagery, In: J.H. Lehr (Ed.), Encyclopedia of Water, Vol. 3, John Wiley and Sons Inc., USA, 560-565.
- 6- **Arasteh, P.D.**, 2005, Water Spreading, In: J.H. Lehr (Ed.), Encyclopedia of Water, Vol. 3, John Wiley and Sons Inc., USA, 708-712.

### **Research and Study Reports**

- 1- **Arasteh, P.D.**, A. Sotoodehnia, A. Kaviani, S. Sotoodehnia, 2016, Application of remote sensing for monitoring leaf area index (LAI) feasibility study, Research Report No. 122908, IKIU, Qazvin, Iran in Persian with English abstract).
- 2- **Arasteh, P.D.**, 2015, Estimation of Kharrood River Basin water production by remotely sensed and satellite image based snow cover, Research Report No. GWZ-87005, Qazvin Water Authority, Ministry of Energy (in Persian with English abstract).
- 3- Eslami, A.R., **P.D. Arasteh**, H. DehghaniSanij, A. DidehvarAsl, M. Rashidi, M. Fateh Rad, and M. Marandi, 2014, National water technologies strategic plan, Sharif University of Technology, Tehran, Iran (in Persian).
- 4- **Arasteh, P.D.**, 2013, Investigation on and estimation of irrigation efficiency in Qazvin Plain Surface Irrigation Network using satellite imagery, Research Report No. GWZ-87004, Qazvin Water Authority, Ministry of Energy (in Persian with English abstract).
- 5- **Arasteh, P.D.**, 2010, Study of artificial recharge vacancies in west Mazandaran Basin, AEM Consulting Engineers, Tehran, Iran (in Persian).
- 6- Heydarizade, M., J. Porhemmat, M.H. Mahdian, S. Rahimi, B. Ghermezcheshmeh, and **P.D. Arasteh**, 2009, Kashkan-Karkheh River Basin water balance and productivity study, Research Report No. 4-100-300000-02-8402-84001, Soil Conservation and Watershed Management Research Institute, Tehran, Iran (in Persian with English abstract).
- 7- **Arasteh, P.D.**, 2009, Application of satellite imagery to soil salinity change detection in center of Qazvin Plain, Kamab Pars Consulting Co., Tehran, Iran and Qazvin Agricultural District, Qazvin, Iran (in Persian).
- 8- **Arasteh, P.D.**, M. Emadzadeh, M. Tajrishy, 2008, Study of water balance and productivity in Sirvan- Dialeh trans-boundary river basin using remote sensing, Environmental and Water Research Center (EWRC), Sharif University of Technology, Tehran, Iran and Water Resources and Energy Development Co., Tehran, Iran, Ministry of Energy (in Persian).
- 9- Esmaili, O., **P.D. Arasteh**, M. Tajrishy, and A. Abrishamchi, 2008, Zonation of dust source potential areas in Iran and Investigation on severity, duration and spatial extent of dust storms using remote sensing, Environmental and Water Research Center (EWRC), Sharif University of Technology, Tehran, Iran and Researchers Supporting Fund (in Persian).

- 10- **Arasteh, P.D.**, 2007, Estimation of minimum environmental water requirements of Hamun Wetlands and Sistan River, Absaran Consulting Co., Tehran, Iran and Sistan Water Authority, Zabol, Iran (in Persian).
- 11- **Arasteh, P.D.**, B. Saghafian, M.H. Mahdian, J. Porhemmat, and A. Sarreshtehdari, 2006, Application of remote sensing in regional total evapotranspiration estimation and spatial distribution (case study: Sistan Plain, Iran), Research Report No. 82-0500335000-08, Soil Conservation and Watershed Management Research Institute, Tehran, Iran (in Persian with English abstract).
- 12- **Arasteh, P.D.**, 2004, Development of a distributed model for estimation of regional evaporation using remote sensing techniques (case study: HamoonLakes of Iran), PhD thesis, TarbiatModarresUniversity, Tehran, Iran (in Persian).
- 13- Tajrishy, M. and **P.D. Arasteh**, 2004, Water balance study and Hamoon surface evapotranspiration using empirical models and satellite remote sensing, Environment and Water research Center, Sharif University of Technology, Tehran, Iran (in Persian).
- 14- **Arasteh, P.D.** and M. Tajrishy, 2004, Quantity and quality assessment on evaporation data in Hamoon region, Hamoon Technical Report No. 3, Environment and Water research Center, Sharif University of Technology, Tehran, Iran (in Persian).
- 15- **Arasteh, P.D.** and M. Tajrishy, 2004, Energy balance components of Chahnimeh Reservoir, Hamoon Technical Report No. 4, Environment and Water research Center, Sharif University of Technology, Tehran, Iran (in Persian).
- 16- TabatabaeeYazdi, J., M.H. Davoudi, A. Gohari, A.R. Majidi, and **P.D. Arasteh**, 2004, Evaluation of groundwater utilization by constructing underground dam, Research Report No. S79-0500035000-03, Soil Conservation and Watershed Management Research Institute, Tehran, Iran (in Persian with English abstract).
- 17- Banihashemi, M.A., **P.D. Arasteh**, B. Saghafian, A.K. Abbassi, A. FatehiMarj, S. Mafi, 2004, Integrated model of flood spreading hydrologic and hydraulic processes, Research Report No. 77-0515300000-04, Soil Conservation and Watershed Management Research Institute, Tehran, Iran (in Persian with English abstract).
- 18- Saghafian, B., **P.D. Arasteh**, and A. FatehiMarj, 2003, Feasibility of using of MODFLOW groundwater flow model for inclusion in flood spreading mathematical model, Research Report No. 77-0510300000-02, Soil Conservation and Watershed Management Research Institute, Tehran, Iran (in Persian with English abstract).
- 19- **Arasteh, P.D.** and M.A. Banihashemi, 2002, Quasi-2D simulation of shallow water flow in a flood spreading system, Research Report No. 77-0510300000-01, S/N 362/81, Soil Conservation and Watershed Management Research Institute, Tehran, Iran (in Persian with English abstract).
- 20- **Arasteh, P.D.**, 1998, Integrated model of flood spreading hydrologic and hydraulic processes: rainfall-runoff lumped model, Research Report No. 161-3, Jihad Water and Watershed Research Company (JWRC), Tehran, Iran, (in Persian with English abstract).
- 21- **Arasteh, P.D.**, 1995, Study of border irrigation hydraulics to develop an applicable mathematical model, MSc thesis, TabrizUniversity, Tabriz, Iran (in Persian with English abstract).

### **Submitted Papers, Articles and Books**

- 1- Ramezani Khojini, A.R., M.M. Kheirkhah Zarkesh, P.D. Arasteh, A. Moridi, R. Alimohammadi, Sensitivity analysis on the estimated evapotranspiration using daily energy balance model and comparison with SEBAL, Iran Water Resources Research (Accepted) (in Persian with English abstract).
- 2- T. Honar, **P.D. Arasteh**, and Khoshnavaz, F., Estimation of agricultural water productivity in Qazvin irrigation and drainage network using remote sensing, Water and Soil Science (Accepted) (in Persian with English abstract).
- 3- Mehdikhani, M., B. Saghafian, and **P.D. Arasteh**, A new damage-probabilistic approach to agricultural drought risk analysis, Natural Hazards (Submitted).
- 4- Bokaie, M., M. KheirkhahZarkesh, and **P.D. Arasteh**, Estimation of Land Surface Temperature to study Urban Heat Island Phenomenon using Landsat TM imagery, Environmental Earth Sciences (Submitted).
- 5- YounezzadehJalili, S., M. Kamali, **P.D. Arasteh**, Analytical study of landuse (irrigated areas and open surface waters) in Lake Urmia Basin using Landsat satellite images, Pazhohesh and Sazandegi, (Submitted).
- 6- Kamali, B., A. Sotoodehnia, **P.D. Arasteh**, M.M. Zarabi, and A.M. Liaqat, Simultaneous impact of planting date and supplemental irrigation on rainfed lentil in Qazvin Plain, Iran, Journal Water Research in Agriculture (Submitted).
- 7- Sotoodehnia, A., M. Dastke, and **P.D. Arasteh**, Hydraulic assessment of operating trickle irrigation systems in Shahryar District, Alborz, Iran, Journal of Water and Soil (Submitted).
- 8- Ghasemi, A., A.H. Zare, and **P.D. Arasteh**, Assessment of Artificial Recharge Projects in Midwest of Iran, Journal of Water Resources Planning and Management (Submitted).
- 9- Soltani, A.R., A.M. Liaqat, A. Sotoodehnia, and **P.D. Arasteh**, An investigation on the effects of planting date on rain-fed spring lentil yield in Qazvin Plain, Iran, ICID Journal (Submitted).
- 10- Gomrokchi, A.Y., M. Mohammad Khani, and **P.D. Arasteh**, Optimization of water distribution in drought conditions over Qazvin irrigation network, Journal of Irrigation and Water Engineering (in Persian with English Abstract).
- 11- **Arasteh, P.D.**, Elementary Numerical Analysis in Water Sciences, IKIU Publication (Submitted).
- 12- **Arasteh, P.D.**, Irrigation impact assessment on soil salinity changes under Qazvin Plain Irrigation Network and adjacent salt marsh using satellite imagery, ICID Journal (Submitted).
- 13- Shokoohi, A.R., and **P.D. Arasteh**, Groundwater modeling and data supply: geostatistics or probabilistic method, Journal of Hydroinformatics (Submitted).
- 14- Tajrishy, M., **P.D. Arasteh**, A. Abrishamchi, Sh. Taheri, and P. Haghghatjoo, Hamoon area evapotranspiration estimation and water balance modeling using empirical models and satellite imagery, Sharif Quarterly Journal of Science and Technology (Accepted for publishing) (in Persian with English abstract).
- 15- **Arasteh, P.D.**, M.H. Mahdian, Reduction of saturated hydraulic conductivity measuring points using top soil texture components, Case study: Sistan Plain, Iran, Agriculture and Natural Resources (Submitted) (in Persian with English abstract).

16- **Arasteh, P.D.** and A.R. Shokoohi, Investigation on long term spatial and temporal trend in precipitation and temperature and their effects on hydrological regime of stream flow in Iran based on satellite data, Iran Journal of Irrigation and Drainage (Submitted)( in Persian with English abstract).

17- Emadzadeh, M., M. Tajrishy, and **P.D. Arasteh**, Estimation of evapotranspiration rate and water productivity in watershed scale using remote sensing: case study in Qarasu Watershed, ASCE Journal of Irrigation and Drainage (Submitted).

### **Research and Consulting Study Projects**

<b>No</b>	<b>Year</b>	<b>Type</b>	<b>Position</b>	<b>Name of Report</b>	<b>Organization</b>
1	1994	Consulting Study Project	Assistant	Design of sprinkler irrigation system in Bilverdi region Tabriz, Iran	Bulut Consulting Engineers
2	1995	Research Project	Leader	Estimation of inflow hydrograph to a flood spreading system	Soil Conservation and Watershed Management Research Institute
3	1998-2002	Research Project	Leader	Quasi-2D simulation of shallow water flow in a flood spreading system	Soil Conservation and Watershed Management Research Institute
4	1998-2004	Research Project	Assistant	Integrated model of flood spreading hydrologic and hydraulic processes	Soil Conservation and Watershed Management Research Institute
5	1999-2000	Research Project	Leader	Simulation of unsteady 2D ground water flow arising from artificial recharging of aquifer by flood spreading system	Soil Conservation and Watershed Management Research Institute
6	1999-2004	Research Project	Assistant	Feasibility of using of MODFLOW groundwater flow model for inclusion in flood spreading mathematical model	Soil Conservation and Watershed Management Research Institute
7	2000-2001	Consulting Study Project	Assistant	Design of water supply project of ImamKhomeiniInternational Airport	Jihad Water and Watershed Research Company
8	2002	Research Project	Leader	Zonation of potentially suitable areas in Qazvin province for water harvesting and development a technique based on event based rainfall-runoff models for quantifying	ImamKhomeiniInternationalUniversity

				the matter	
9	2001-2004	Research Project	Assistant	Evaluation of flow of an underground dam	Soil Conservation and Watershed Management Research Institute
10	2002	Consulting Study Project	Assistant	Comprehensive study of Karun II Dam at Susan Valley	Tehran-Berkley Consulting Co
11	2002-2005	Research Project	Assistant	Investigation of methods and determination of suitable method for meteorological drought forecasting in east and central regions of Iran	Soil Conservation and Watershed Management Research Institute
12	2002-2005	Research Project	Assistant	Evaluation of conjunctive effects of snowmelt and rainfall on peak and volume of flood in some sub-basins of Karun River	Soil Conservation and Watershed Management Research Institute
13	2002-2005	Research Project	Assistant	Investigation of flood spreading impact on quality and quantity of underground water resources	Soil Conservation and Watershed Management Research Institute
14	2002-2004	Research Project	Assistant	Calibration and Evaluation of Green-Ampt infiltration model in Baghan Catchment, Boushehr, Iran	Soil Conservation and Watershed Management Research Institute
15	2003-2006	Research Project	Leader	Application of remote sensing in regional total surface evaporation estimation and spatial distribution, case study: Sistan Plain, Iran	Soil Conservation and Watershed Management Research Institute
16	2004-2007	Research Project	Assistant	Challenge Program (Water for Food) in Karkheh River Basin	ICARDA-AREO joint program
17	2001-2004	Consulting Study Project	Assistant	Sistan water resources management- comprehensive study	Absaran Consulting Co.
18	2003-2005	Consulting Study Project	Assistant	South Baluchistan water resources management- comprehensive study	Absaran Consulting Co.
19	2006-2007	Research Project	Leader	Estimation of minimum environmental water requirements of Hamun	Absaran Consulting Co.

				Wetlands and Sistan River	
20	2007-2008	Research Project	Leader	Study of water balance and productivity in Sirvan-Dialeh trans-boundary river basin using remote sensing	Environmental and Water Research Center (EWRC), Sharif University of Technology
21	2007-2008	Research Project	Assistant	Zonation of dust source potential areas in Iran and Investigation on severity, duration and spatial extent of dust storms using remote sensing	Environmental and Water Research Center (EWRC), Sharif University of Technology
22	2008-2009	Research Project	Leader	Application of satellite imagery to soil salinity change detection in center of Qazvin Plain	Kamab Pars Consulting Co.
23	2009-2010	Research Project	Leader	Investigation on and Estimation of Irrigation Efficiency in Qazvin Plain Surface Irrigation Network Using Satellite Imagery	Qazvin Water Authority
24	2009-2010	Research Project	Leader	Estimation of Kharrood River Basin Water Production by Remotely Sensed and Satellite Image based Snow Cover	Qazvin Water Authority
25	2009-2010	Research Project	Leader	Study of Artificial Recharge Vacancies in West of Mazandaran Basins	AEM Consulting Engineers
26	2014-Present	Research Project	Leader	Determination of Volumetric Potential of Fresh and Salt Water in Surface and groundwater resources, Qazvin Studies Unit	Qazvin Water Authority
27	2015-2016	Research Project	Leader	Feasibility Study of Using Satellite Images to Estimate Leaf Area Index	Imam Khomeini International University

### **Teachings in IKIU**

- 1- Surface Irrigation Hydraulics – Graduate Course
- 2- Advanced Numerical Methods in Water Sciences – Graduate Course
- 3- Application of GIS and Remote Sensing in Water Sciences – Graduate Course

- 4- Infiltration and Seepage – Graduate Course
- 5- Groundwater Modeling and Advanced groundwater hydraulics- Graduate Course
- 6- Groundwater Hydraulics- Undergraduate Course
- 7- Advanced Soil Physics – Graduate Course
- 8- Advanced Soil Water Relation to Plants – Graduate Course
- 9- Irrigation Principles and Fundamentals - Undergraduate Course

### **Invited Lecturer**

- 09/2015-Present    Advanced Hydrogeology and Water Resources Pollution Courses for PhD Students of School of Natural Resources, Hormozgan University, Bandar Abbas, Iran
- 01/2014-Present    Urban Hydrology and Advanced Hydrology Courses for PhD Students of School of Natural Resources, Hormozgan University, Bandar Abbas, Iran
- 09/2014-  
01/2015              Advanced Hydrology Course for PhD Students of International Branch of Hormozgan University, Qeshm Island, Iran
- 09/2014-  
01/2015              Elementary GIS & RS and Advanced GIS & RS Courses for MSc and PhD Students of School of Civil Engineering, Amir Kabir University of Technology (Tehran Polytechnics), Tehran, Iran
- 09/2013-Present    Elementary GIS & RS, Advanced GIS & RS, Advanced Groundwater Hydraulics, Air Pollution Engineering, Environmental Modeling and Climate Change Courses for MSc Students of School of Civil Engineering, Saeb University, Abhar, Iran
- 10/2013-  
11/2013              International Workshop on Application of Irrigation and Drainage for Iraqis Water Ministry staffs, College of Applied Sciences of Water and Power, Ministry of Energy, October 28 ~ November 1, 2013, Tehran, Iran.
- 09/2009-  
07/2010              Elementary GIS & RS and Advanced GIS & RS Courses for MSc and PhD Students of School of Agricultural Engineering, Bu Ali Sina University, Hamadan, Iran
- 09/2008-Present    Elementary GIS & RS and Advanced GIS & RS Courses for MSc and PhD Students of School of Civil Engineering, Sharif University of Technology, Tehran, Iran
- 09/2004-  
07/2008              Fluid Mechanics, Elementary Hydraulics, Irrigation Principles, Soil Water Relation to Plants for Undergraduate Students of School of Agricultural Engineering, Free University of Takestan, Takestan, Iran

### **Supervised-Advised Thesis and Dissertation**

2002	M. Mianehrow	Advisor	Determination of desertification trend in affected regions of Iran by climate indices and mathematical modeling- MSc thesis, Free University Rey Branch, Tehran, Iran
2003	J. Yarahmadi	Advisor	The integration of satellite images, GIS and cropwat model to investigation of water balance in irrigated area- a case study of Salmas and Tassoj PlainIran, MSc thesis, ITC, Enscheda, The Netherlands
2003	S. Jadidpour	Advisor	Estimation of artificial recharge efficiency in Hamadan Province, Iran, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2004	M.R. Rastgooyan	Advisor	Study of the interaction of groundwater and dam reservoir- case study in Tooyserkan Dam, Tooyserkan, Iran, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2005	A.R. Momenalizadeh	Advisor	Tassoj Plain groundwater modeling, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2006	O. Esmaili	Supervisor	Preliminary mapping of prominent dust emission sources located in Iran, through remote sensing technology, MSc thesis, Sharif University of Technology
2007	M. Bagheri	Advisor	Investigation on the effects of drought on spring discharge hydrograph in Alashtar Plain, Lorestan, Iran, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2007	S. Zeea Jahromi	Advisor	Investigation of different alternatives of water exploitation from Jahrom Plain aquifer with MODFLOW mathematical model, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2007	M. Zavareh	Advisor	Study of artificial recharge effects on fresh-saline water interface using groundwater model and GIS- case study in Tassoj Plain, Tabriz, Iran, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2007	M. Emadzadeh	Supervisor	Application of remote sensing to estimate water productivity in catchment scale- case study in Gharesoo Basin, Iran, MSc thesis, Sharif University of Technology
2007-2009	H. Hesadi	Supervisor	Application of satellite remote sensing in regional evapotranspiration estimation- case study in Upper Karkheh River Basin, Iran, PhD dissertation,



Chamran University, Ahwaz, Iran

2009-2013	A. Kaviani	Supervisor	Investigation on downscaling method for modeling agricultural water productivity using satellite imagery, PhD dissertation, Tehran University, Tehran, Iran
2010-2011	F. Khoshnavaz	Supervisor	Estimation of agricultural water productivity using remote sensing techniques-case study in Qazvin Plain, Iran, MSc thesis, University of Shiraz
2009-2010	S.H. Rahmati	Advisor	An investigation on estimating of flood hydrograph in ungauged watersheds of semiarid areas, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2012-2013	M. Zeinalzadeh	Supervisor	Validation of satellite precipitation products in Urmia Lake Basin, Case study: PERSIANN, MSc thesis, IKIU, Qazvin, Iran
2012-2013	Q.H. Sheikh Sofla	Supervisor	Modeling salt-fresh water interface in inland aquifer adjacent to salt marshes, MSc thesis, IKIU, Qazvin, Iran
2012-2013	R. Zavosh	Supervisor	Drainage system design optimization, an economical-environmental approach, MSc thesis, IKIU, Qazvin, Iran
2012-2013	M. Dastkeh	Advisor	Hydraulic assessment of performed micro-irrigation systems in Shahryar District, Alborz, Iran, MSc thesis, IKIU, Qazvin, Iran
2012-2013	M.S. Dibaj	Supervisor	A new approach on RDI to drought monitoring using remote sensing techniques, MSc thesis, IKIU, Qazvin, Iran
2013-2014	A. Shahosseini	Supervisor	Estimation of advection using remotely sensed techniques in Chahnimeh Reservoir, Sistan, Iran, MSc thesis, IKIU, Qazvin, Iran
2012-2013	M. Jamshidi	Supervisor	Numerical-laboratory simulation of Carbon injection on hydrodynamic properties of porous media, MSc thesis, IKIU, Qazvin, Iran
2012-2013	M. Gharadaqi	Supervisor	An investigation on the effects of water table management on Nitrogen Cycle and water resources pollution through a laboratory test, MSc thesis, IKIU, Qazvin, Iran
2013-2014	M.R. Babaee	Supervisor	Study of saline-alkaline soils reclamation using Gypsum and Sulfur by LEACHC model, MSc thesis, IKIU, Qazvin, Iran
2012-2013	B. Kamali	Advisor	Study of effects of planting date and supplement irrigation on rain-fed Lentil productivity, MSc thesis,

IKIU, Qazvin, Iran

2013-2014	A. Doosti	Advisor	Dry drainage modeling to determine no-planting strip width, MSc thesis, IKIU, Qazvin, Iran
2012-2013	R. Morovati	Advisor	Study of spatial distribution of drought in Iran using RDI and gridded data, MSc thesis, IKIU, Qazvin, Iran
2013-2014	E. Noroozpour	Advisor	Study of sub-surface drain depth on Nitrate leaching from a loam-sand soil profile, MSc thesis, IKIU, Qazvin, Iran
2013-2014	H. Mehdikhani	Advisor	Developing a drought risk analysis model, PhD thesis, Free University Science and Research Branch, Tehran, Iran
2013-2014	M. Sahebzadeh	Supervisor	Yield estimation in rice using GRAMI model and low resolution remote sensing data of MODIS, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2013-2014	B.H. Sameni	Supervisor	Groundwater level forecast using ANN with radial base functions and particlesunion algorithm, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2013-2014	N. Nasiri	Advisor	Analysis of relationships between Lake Urmia surface area with meteorological and hydrological drought trends using satellite images, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2013-Present	A. Valipour	Supervisor	Analysis of drought damage on irrigated wheat using remote sensing, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2013-2015	M. Ghanbari	Supervisor	Smoke and green house gases detection in wintertime using MODIS images, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2013-2015	F. Taheri	Supervisor	Tehran urbanization change for the last 3 decades by multi-temporal Landsat-based estimates of impervious surface, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2013-2014	S.M. Bokaei	Supervisor	Study of urban heat island through analysis of LST from satellite imagery, MSc thesis, Free University Science and Research Branch, Tehran, Iran
2013-2014	A. Mirshahi	Advisor	Generation satellite precipitation time series to use in drought monitoring, MSc thesis, Sharif University of Technology, Tehran, Iran

2013-2014	S.M.E. Kolahdoozan	Advisor	Prediction of drought probability using Markov Chain and remotely sensed data, MSc thesis, Sharif University of Technology, Tehran, Iran
2013-2015	N. Ghajarnia	Supervisor	Validation and physically post calibration of PERSIANN precipitation satellite maps-Case study in Lake Urmia Basin, PhD dissertation, University of Tehran, Tehran, Iran
2014-2015	A. Ramezani Khojeen	Supervisor	Determination of agricultural water consumption using energy balance algorithm (Case study: Agricultural area of Sharekord Plain), MSc thesis, Free University Science and Research Branch, Tehran, Iran
2014-2015	Z. Abdollahi	Supervisor	Study of irrigation adequacy and determination of irrigated area of Qazvin Network using satellite imagery and SEBAL algorithm, MSc thesis, IKIU, Qazvin, Iran
2014-2015	A. Bagheri	Supervisor	Investigation of the relationship between cloud temperature and observed rainfall magnitude (Case study: Qazvin Plain), MSc thesis, IKIU, Qazvin, Iran
2014-2015	E. Ezzat Shoar Sanavi	Supervisor	Estimation of orchards evapotranspiration using satellite imagery and SEBAL algorithm, MSc thesis, IKIU, Qazvin, Iran
2014-2015	S. Sotoodehnia	Supervisor	Photomorphometric analysis and using satellite images to estimate crop production (Maize, Sugar beet and Alfalfa), MSc thesis, IKIU, Qazvin, Iran
2014-2015	M. Mirasheh	Supervisor	An investigation of water requirement of irrigated lands in Hirmand Basin-Afghanistan using remotely sensed techniques, MSc thesis, IKIU, Qazvin, Iran
2014-2015	A.S. Kaqazloo	Advisor	Linear move sprinkler irrigation systems hydraulic evaluation in Qazvin Plain (Case study: Magsal agro-industrial company), MSc thesis, IKIU, Qazvin, Iran
2014-2015	M. Arazkhani	Supervisor	Comparison of soil salinity indices in Qazvin Plain using Satellite imagery, MSc thesis, Free University Science and Technology Branch, Tehran, Iran
2015-2016	A. Ghobadi	Supervisor	Reducing parameters of advection aridity model to estimate actual evapotranspiration at basin scale, MSc thesis, Free University Tehran West Branch, Tehran, Iran
2015-2016	P. Bigdeli	Supervisor	Satellite based precipitation data validation for hydrological modeling in basin scale, MSc thesis, Saeb University, Abhar, Iran
2015-	Q. Eftekhari	Supervisor	Comparison between modeling methods of atmospheric CO <sub>2</sub> consumption in agricultural

2016			products (Case study: Central Alborz region), MSc thesis, IKIU, Qazvin, Iran
2015-2016	S. Karimi	Supervisor	Laboratory and numerical modeling of mulch effects on soil moisture, salinity and temperature distribution, MSc thesis, IKIU, Qazvin, Iran
2015-2016	K. Zarakani	Advisor	Determination of optimum values for effective design parameters on border and furrow irrigation with continuous and cut back flow regimes, MSc thesis, IKIU, Qazvin, Iran
2015-2016	F. Haji Rajabi	Advisor	Optimizing the design of drainage systems with economic and environmental approaches using simulated annealing, MSc thesis, IKIU, Qazvin, Iran
2015-Present	P. Talaee	Supervisor	SEBAL algorithm improvement by advection term for arid regions using physically based transport processes, PhD dissertation, TarbiatModarres University, Tehran, Iran
2015-2016	H.R. Azhari	Supervisor	Assessment of drought mitigation scenarios for Lake Urmia Basin through IWRM approach, MSc thesis, IKIU, Qazvin, Iran
2015-Present	M. Riahi	Supervisor	Water recycling position in integrated water resources management, PhD dissertation, Hormozgan University, Bandar Abbas, Iran
2015-Present	S. Mohammadi	Supervisor	Investigation of energy-water nexus in southern shore line of Iran with salinization approach, PhD dissertation, Hormozgan University, Bandar Abbas, Iran
2016-Present	E. Kamali	Supervisor	Groundwater pollution impacts from direct recharge of treated wastewater, PhD dissertation, Hormozgan University, Bandar Abbas, Iran
2016-Present	D. Kabir Samadi	Supervisor	Revising GCM precipitation statistical downscaling methods using satellite precipitation Maps (Case Study: Qazvin Plain, Iran), MSc thesis, IKIU, Qazvin, Iran
2016-Present	S. Nosrat Abadi	Supervisor	Estimation of climate change impacts on Qazvin Plain Irrigation Network Water Delivery, MSc thesis, IKIU, Qazvin, Iran
2016-Present	M.S. Hashemi Tameh	Supervisor	Groundwater preservation and resilience using game theory through a system dynamic approach, PhD dissertation, IKIU, Qazvin, Iran
2016-Present	B. Hamzeh Zadeh	Supervisor	Impact assessment of climate change on environmental services (Case Study: Qazvin Province), MSc thesis, IKIU, Qazvin, Iran

2016- Present	B. Mirgol	Supervisor	Estimation of climate change impacts on dry land farming (Case Study: Qazvin Province), MSc thesis, IKIU, Qazvin, Iran
2016- Present	S. Yousefnejad	Supervisor	Prediction of large climate signals and climate indices of Taleghan Dam Reservoir, MSc thesis, Free University Science and Technology Branch, Tehran, Iran
2016- Present	R. Molaee	Supervisor	Irrigation network environmental assessment report (case study: Zanjan Province), MSc thesis, Saeb University, Abhar, Iran
2016- Present	L. Motamedi	Supervisor	Determination of the suitable satellite based method of top soil moisture content estimation and proper spatial scale (case study in Qazvin Plain), MSc thesis, Free University Science and Technology Branch, Tehran, Iran
2016- Present	M. Mafakheri	Supervisor	Groundwater vulnerability study using multi-criteria decision making methods (Case study in Qazvin Plain Groundwater Basin), MSc thesis, IKIU, Qazvin, Iran
2016- Present	K. Moosavi	Advisor	Presenting an environmental resilience management model in Yazd-Ardakan plain to establish industrial applications, PhD dissertation, Free University Science and Technology Branch, Tehran, Iran
2016- Present	A. Heydari	Advisor	Qazvin plain irrigation network hydraulic evaluation indices, MSc thesis, Buali Sina University, Hamedan, Iran
2016- Present	H. Hashemi	Advisor	Study of bilateral effects of institutional quality and economical growth on desertification in MENA countries using panel data and appropriate management approach, PhD dissertation, Free University Science and Technology Branch, Tehran, Iran
2017- Present	H. KhanAhmadi	Advisor	Trend analysis and assessment of climate effects on area of Iran large wetlands using satellite imagery, MSc Thesis, Free University Science and Technology Branch, Tehran, Iran

## **Familiarized Software**

**GIS:** ILWIS GIS, Arc View, Arc GIS

**RS:** ERDAS

**Programming Languages:** Visual Basic, Visual FORTRAN, C++, C#

**Geostatistics:** GS+, VARIOWIN

**Statistics:** statgraphics, MINITAB

**General Math:** MATHLAB

**Visualization:** Photoshop

**Hydraulic and Hydrologic Modeling:** PMWIN, HEC-GeoHMS, HEC-GeoRAS, Irrigation Softwares, SWAT, WINPEST, HEC Series, TR-20, TR-55, DRAINMOD, TOPMODEL

**Air Quality Modeling:** HYSPLIT4