

# Amirhossein Nazemi B.Sc., M.Sc., Ph.D.

Professor, Department of Water Engineering



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## Education

Certificate Degree	Field of Specialization	Name of Institution Attended	Date Received
Ph.D.	Groundwater	University of Manchester (UMIST), UK	1998
M.Sc.	Water Resources	University of Tabriz, Iran	1988
B.Sc.	Irrigation	University of Tabriz, Iran	1985

## Specialization

Groundwater & Porous Media
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## Thesis Titles

PhD: Modelling of Partially Saturated Soil
MSc: Optimization of Open Channel System

## Teaching Areas

Title of Course	Level	Dates		Name of Institution
		From	To	

Transport Phenomena in Soil	Ph.D.	1998		University of Tabriz
Advanced Water and Soil Physics	Ph.D.	1998		“
Advanced Drainage	M.Sc.	1998		“
Advanced Groundwater	M.Sc.	2000		“
Flow in Porous Media	M.Sc.	2000		“
Technical English	B.S.	2010		“

### Administrative Responsibilities

Job Title	Place of Work	Date		Name of Institution
		From	To	
Head	Department of Water Engineering	2010	2014	University of Tabriz
Director	Office of Graduate Studies	2005	2009	“
Deputy	Faculty of Agriculture	2000	2004	“

### Academic Positions

Title of Position	Field of Specialization	Date		Name of Institution
		From	To	
Professor	Irrigation and Drainage	2011		University of Tabriz
Associate Professor	Irrigation and Drainage	2006	2011	“
Assistant Professor	Irrigation and Drainage	1998	2006	“
Lecturer	Water Resources Engineering	1988	1993	“

### Ph.D. Thesis Supervision

No	Full Name of Student	Year	Title of thesis
	Saeed Noorabadi	2017	Laboratory and Numerical Study of Management and Control Of Seawater Intrusion into Coastal Aquifers
	Farshid Taran	2016	Laboratory Study and Simulation of Solute Transport in soil under Irrigation or Rainfall
	Yaser Yekani Motlagh	2016	Simulation of Surface and Subsurface Water Flows in Trickle Irrigation by Using Navier-Stokes and Richard's Equation
	Habib Sayyadi	2015	Effects of Deflector Plate Condition on the Dynamics of Water Flow and Spray Characteristics of Center Pivot Irrigation Sprinklers
	Jalal Shiri	2014	Modeling Reference Evapotranspiration: Comparative Analysis between Artificial Intelligence Physical- Empirical Models
	Saeed samadian	2014	Simulation of Point Source Time- Depended Soil Moisture Profile using Pore- Network Modeling
	Fatemeh Salahshoor	2014	Water Flow and Salt Transport in Cracking Clay Soils and their Effects on Rice Yield
	Abolfazl Majnooni	2012	Modeling Water Flow and Uptake in Spring Canola Field Emphasizing of Root Growth Dynamics
	Shahram Shahmohammadi Kalalagh	2012	Simulation of Heavy Metals Transport in Unsaturated Porous Media with Fractional Advection-Dispersion Equation (FADE)
	Ahad Molavi	2011	Soil Moisture Pattern under Continuous and Intermittent Flow in Drip Irrigation
	Sina Besharat	2010	Investigation of Water flow in soil with Root Water Uptake Based on Field Studies and Solution of Governing Equations
	Reza Dalir-Hassannia	2010	Dynamic Model for Water Distribution Pattern of Center Pivot Irrigation

	<b>Majid Raof</b>	<b>2010</b>	<b>Infiltration and Soil Hydraulic Properties in Sloping Lands</b>
	<b>Behrouz Safi</b>	<b>2008</b>	<b>Lateral Optimum Spacing and Subsurface Drip Irrigation Management for Onion Production</b>
	<b>Hamid Zare Abyaneh</b>	<b>2006</b>	<b>Dynamics of Mass Flow in Layered and Non Layered Soils</b>
	<b>Ali Ashraf Sadraddini</b>	<b>2005</b>	<b>Optimization of Surge Irrigation Using Tabu Search Method</b>

## M.Sc. Thesis Supervision

<b>No</b>	<b>Full Name of Student</b>	<b>Year</b>	<b>Title of thesis</b>
	<b>Mehdi Ghasemi</b>	<b>2016</b>	<b>Zoning and Investigating Groundwater Quality Variations of Tabriz Plain and Its Assessment Based on Cropping Pattern</b>
	<b>Yasin Aali Annab</b>	<b>2016</b>	<b>Numerical Simulatio of Water Movement and Heat Transfer in Unsaturated Soil</b>
	<b>Sajad Faghfour</b>	<b>2016</b>	<b>Investigating Spatiotemporal Variations of Global Solar Radiation Using Geographical Information System (GIS)</b>
	<b>Fatemeh Gholipour</b>	<b>2015</b>	<b>Study and Simulation of Salt Distribution in Wetting Bulbs of Drip Irrigation</b>
	<b>Mahsa Taheri</b>	<b>2015</b>	<b>Pollutant Transport Through Saturated Porous Media Under Discharge and Recharge Conditions</b>
	<b>Mostafa Sadeghzadeh Sadat</b>	<b>2014</b>	<b>Impacts of Surface Water Quality on Groundwater Quality (Case Study: Tabriz Plain)</b>
	<b>Solmaz Aghajani</b>	<b>2014</b>	<b>Numerical and Experimental Investigation of the Salt Transport and Leaching Efficiency in Soil Columns with Consideration of Root Growth and Uptake</b>
	<b>Ali Rashid Niaghi</b>	<b>2014</b>	<b>Temporal and Spatial Estimation of Biomass and Evapotranspiration Using the Satellite (Case Study: East Azarbaijan Province, Iran)</b>
	<b>Mohammadreza Kouchebaghi</b>	<b>2014</b>	<b>Statistical Analysis of Wind Velocity and its Effect on Reference Crop Evaporation in Tabriz</b>
	<b>Keivan Farajzadeh</b>	<b>2014</b>	<b>Simulation of Pulse Drip Irrigation and Determination of Wetted Depth and Diameter and the Most Appropriate On-Off Time Ratio</b>
	<b>Seyed Saber Sharifi</b>	<b>2013</b>	<b>Soil Moisture Irrigation Scheduling</b>
	<b>Zahra Mahmoodi Fard Germi</b>	<b>2013</b>	<b>Assessment and Analysis of Changes in Groundwater Level, Salinity and Alkalinity Using Geographic Information System (GIS) (Case study: Ardabil Plain Aquifer)</b>
	<b>Susan Valiahary</b>	<b>2013</b>	<b>Technical Performance Assessment of Trickle Irrigation Systems of Sattarkhan Dam Irrigation Network</b>
	<b>Sanam Etaei</b>	<b>2013</b>	<b>Estimating Quantitative and Qualitative Parameters of River Water Using Artificial Intelligence Techniques (Case Study: The Sowfi Chay River)</b>
	<b>Zahra Norouzi</b>	<b>2013</b>	<b>Experimental and Numerical Investigation of Soil Water Distribution Under Subsurface Drip Irrigation in Level and Sloping Layered Soils</b>
	<b>Sayyadollah Pouryousef</b>	<b>2013.</b>	<b>Impact of Climate Change on Performance of Pressurized Irrigation Networks (case Study: Sattarkhan Dam, Iran)</b>
	<b>Hossein Aghamohammadpour Gharebagh</b>	<b>2013</b>	<b>Analyzing Simineh Rood River Pollution by ARC GIS Software</b>
	<b>Amir Ghorbani</b>	<b>2013</b>	<b>Evaluation of the accuracy of Predicting Models for Soil Wetting Pattern Under Point Source Micro Irrigation</b>
	<b>Saber Jabbari</b>	<b>2012</b>	<b>Study of Quantitative and Qualitative Changes of Groundwater due to Pumping from Coastal Aquifers Using Mathematical Model (Case Study: Bonab Coastal Aquifer)</b>
	<b>Sepideh Karimi</b>	<b>2012</b>	<b>Evaluation Equilibrium and Non- Equilibrium Transport of Bromide in Undisturbed and Disturbed Soils by Mathematical Models</b>
	<b>Nina Beighzali</b>	<b>2012</b>	<b>Integrated Spatial Multi Criteria Making (SMCDM) Methods with Geographical Information System (GIS) in Locating Artificial Recharging (case Study: Shabestar Floodplain)</b>

	JavadJafari	2012	Simulation of Water Quality and Quantity of Outflow from Drains Using System Dynamics
	Farshid Taran	2012	Analysis of Contaminant Transport in Homogeneous and Heterogeneous Porous Media
	Ali Afruzi	2012	Analytical Solution of Seepage from Poned Fields into Drainage Ditches
	Saeed Noorabadi	2012	Simulation and analysis of Soil Water Variation in Furrow Irrigation
	Honeyeh Kazemi	2012	Empirical and Numerical Investigation of Soil Water Distributions Under Subsurface Drip Irrigation
	Abdullah Ranjbar	2012	Effects of Sprinkler Types, Pressure Regulators, Meteorological Parameters and Field Topography on Water Application Uniformity of the Center Pivot Irrigation System
	Mohammad Bazzaneh	2012	Determination the Optimum Arrangement and Spacing of Impact Sprinklers in Sprinkle Irrigation System under Various Wind Conditions
	Amin Rostami	2012	Investigation of Infiltration under Spray Sprinklers of Center Pivot Irrigation
	Moharram babaei	2012	Hydrological Simulation of Sofi Chay Watershed Using HSPF Model
	Reza Karamad Sani	2012	Numerical Simulation of Flow in a Cyclone Filter for Drip Irrigation
	Bakhshali Asghari	2012	Evaluation of Environmental Impacts of Moghan Irrigation and Drainage Network Operation
	Hamid Khoshtaleh	2011	Determining Hydraulic Parameters of Soils of Karkaj Region Using the Vacuum Gauge and Pressure Plate
	HamedKiafar	2010	Optimum Allocation of Water in Cropping Season Using Genetic Algorithm in Irrigation and Drainage Network of Soufichay
	YaserYekani Motlagh	2010	Numerical Simulation of Flow at Junction of Lateral Pipe of Drainage System
	Meysam Taheri Bad Mahmood	2010	Estimation of Appropriate Flow Rate, Distance and Layout of Drippers Using Hydrus 2D/3D
	Mina Kazemi Zaryon	2010	Modeling Variations of Salinity and Some Chemical Characteristics of Unsaturated Soils
	Mojtaba Keshavarzi Hasanabad	2010	Effect of Soil Texture and Organic Matter on Accuracy of Time Domain Reflectometry Equation for Measurement of Soil Moisture Content
	Farzad Fotoohi	2009	Study of Land Leveling Methods in Paddy Fields with Different Topographies
	Shaghayegh Molahoseini	2009	Optimization of Tube Well Drainage Systems by Mathematical Programming
	Mohammad Reza Nikpoor	2009	Water Hammer Simulation Using Physical Model and CFD Numerical Model
	FarhadAslani	2009	Estimation of Appropriate Depth and Spacing of Subsurface Drains Based on Drain Water Quality
	Mehdi Bari Burachalo	2009	Analysis of Seawater Intrusion on Costal Aquifers and Groundwater Quality Variations (a case study on Salmas coastal aquifer)
	Solmaz Seraj Rezaei	2008	Study of Interaction Between River and Aquifer (Case Study: Ghalehchay River)
	Jalal Shiri	2008	Study of the Entrance Resistance Effects on the Performance of Drainage Systems
	Nader Karimi	2008	Estimation of Cucumber Water Requirement and Yield in Greenhouse under Deficit Irrigation
	Behnam Najafi	2007	Prediction of Groundwater Flow to Drains
	Khadijeh Tabatabaee	2005	Optimization of Urban Water Supply (Marand Town Pilot)
	Shahram Shahmohammadi Kalalagh	2004	Analytical Investigation of Mass Transport in Porous Media
	Abbas Tadayon Nejad	2003	Simulation of Surge Irrigation Using Kinematic Wave Model for Karkaj Farms of Tabriz University
	Sabereh Darbandi	2002	Physical – Mechanical Analysis of Unsaturated Soil
	Mojtaba Jalilzadeh	2000	Optimization of Groundwater Utilization

## Selected Journal Publications

Shiri, J., Marti, Pau., Nazemi, AH., Sadraddini, AA., Kisi, O., Landeras, G. and Fakheri Fard, A. 2015. Local vs. external training of neuro- fuzzy and neural networks models for estimating reference evapotranspiration assessed through K-fold testing. *Hydrology Research*, No. 46(1): 72-88.

Shiri, J., Sadraddini, AA., Nazemi, AH., Marti, Pau., Fakheri-Fard, A., Kisi, O. and Landeras, G. 2015. Independent testing for assessing the calibration of Hargreaves- Samani equation: New heuristic alternatives for Iran. *Computers and Electronics in Agriculture*. Vol 117: 70- 80.

Shiri, J., Nazemi, AH., Sadraddini, A.A., Landeras, G., Kisi, O., Fakheri Fard, A., Marti P. 2014. Comparison of heuristic and empirical approaches for estimating reference evapotranspiration from limited inputs in Iran. *Computers and Electronics in Agriculture* 108: 230-241.

Sayyadi, H., Nazemi, AH. Sadraddini, A.A., and Delirhasannia, R. 2014 Characterising droplets and precipitation profiles of a fixed spray- plate sprinkler. *Biosystem Engineering*, No: 119.

Shiri, J., Nazemi, AH. Sadraddini, AA., Landras, G., and Kisi, O. 2013. Global cross-station assessment of neuro-fuzzy for estimating daily reference evapotranspiration. *J Hydrology*, 480: 46-57

Shiri, J., Sadraddini, AA., Nazemi, AH. Kisi, O. and Marti, Pau. 2013. Evaluation of different data management scenarios for estimating daily reference evaporation. *Hydrology Research Journal*. On line 18 February 2013- ISSN Print:0029-1277.

Nazemi, A.H., Sadraddini, A.A., Majnooni- Heris, A., Tuzel, I. H. 2013 Effects of water stress on the yield and water use efficiency of canola. *J. Ege Univ. Faculty of Agriculture*, Vol 1(1): 127-121.

Sadraddini, A.A., Nazemi, A.H., Majnooni- Heris, A. 2013. Quantifying the effects of advection phenomenon on canola evapotranspiration in East Azarbijan region, IRAN. *J. Ege Univ. Faculty of Agriculture*, Vol 1(1): 145-139

Shiri, J., Sadraddini, AA., Nazemi, AH. Kisi, O., Landeras, G., Fakheri-Fard, A., and Marti, Pau., 2013. Generalizability of Gene Programming-based approaches for estimating daily reference evapotranspiration in coastal stations of Iran, *Journal of Hydrology*, No 508: 11-1.

Nazemi, A.H. and Majnooni-Heris, A. 2012. A mathematical model for the interactions between non-identical rough spheres, liquid bridge and liquid paper. 369: 402-410.

Yekani Motlag, Y., Nazemi, A.H., Sadraddini, A.A., Abbaspour, A., Yekani Motlag, Y. 2012. Numerical investigation of the effects of combining sewer junction characteristics on the hydraulic parameters of flow in fully surcharged condition. *Water and Environmental Journal*, No: 347:1-12.

Molavi, A., Sadraddini, AA., Nazemi, AH., Fakheri-Fard, A., 2012. Estimating wetting front coordinates under surface trickle irrigation. *Turkish Journal of Agriculture and Forestry*, 36

Samadianfard, S., Sadraddini, AA., Nazemi, AH., Provenzano, G., and Kisi, O., 2012. Estimating soil wetting pattern for drip irrigation using genetic programming. *Spanish Journal of Agricultural Research*, 10(4).

Majnooni-Heris, A., Sadraddini.A.A., Nazemi, A.H., Shakiba M.R. Neyshaburi, M.R., and Tuzel, I.H., 2012. Determination of single and dual crop coefficient and ratio of transpiration to evapotranspiration for canola. *Annals of Biological Research*, 3(4): 1885-1894

Molavi, A. Nazemi, AH. Sadraddini, AA.Fakheri-Fard, A. 2011. Measuring and estimating coordinates of wetted bulb front in soil under point surface emission. *Journal of Food, Agriculture & Environment*, Vol 9(1): 505-509

Delirhasannha, R., Sadraddini.A.A., Nazemi, A.H., Farsadizadeh, D. and Playan, E. 2010. Dynamic model for water application using centre pivot irrigation. *Biosystems Engineering*, 105: 476-485

Besharat, S., Nazemi, A. H., and Sadraddini, A.A. 2010. Parametric modeling of root length density and root water uptake in unsaturated soil. *Turkish Journal of agriculture and Forestry*, 34:1-11

Raouf, M., Sadraddini.A.A., Nazemi, A.H. and Maroofi, S. 2009. Estimating saturated and Unsaturated hydraulic conductivity and sorptivity coefficient in transient state in sloping lands. *International Journal of Food, Agriculture & Environment (JFAE)* Vol. 7(3&4)

Molenkamp, F. and Nazemi, A.H. 2003. Micromechanical considerations of unsaturated pyramidal packing. *Geotechnique*, 53, 2: 195-206.

Molenkamp, F. and Nazemi, A.H. 2003. Interactions between two rough spheres, water bridge and water vapour. *Geotechnique*, 53, 2: 255-264.

## Selected Conference Presentations

Keshavarzi, M., Rezavirdinejad, V., Nazemi, A. H., Sadraddini, A.A. and Ababaie, B. 2012. Experimental study of the performance of some models in time domain reflection measuring soil moisture estimation. 8<sup>th</sup> International soil Science Congress on Land Degradation and Challenges in Sustainable Soil Management. May 15- 17. Izmir, Turkey.

Keshavarzi, M., Ojaghrou, H., Nazemi, A. H., Sadraddini, A.A. and Ababaie, B. 2012. Effect of soil texture and organic matter on the accuracy of time domain reflectometry method for estimating soil moisture content. 8<sup>th</sup> International soil Science Congress on Land Degradation and Challenges in Sustainable Soil Management. May 15- 17. Izmir, Turkey.

Sadraddini, A.A., Nazemi, A.H., Majnooni- Heris, A. 2012. Quantifying the effects of advection phenomenon on canola evapotranspiration in East Azarbijan region, IRAN. 23th International Scientific Expert Agriculture and Food Industry, 26-29 Sept. Izmir, TURKEY.

Nazemi, A.H., Sadraddini, A.A., Majnooni- Heris, A., Tuzel, I. H. 2012. Effects of water stress on the yield and water use efficiency of canola. 23th International Scientific Expert Agriculture and Food Industry, 26-29 Sept. Izmir, TURKEY.

Shiri, J., Sadraddini, A.A. and Nazemi, A. H. 2010. Suspended Sediment Modeling Using Adaptive Fuzzy Inference System. 8<sup>th</sup> International River Engineering Conference, Shahid Chamran University, 26-28 Jan. Ahwaz.

Besharat, S., Nazemi, A. H., and Sadraddini, A.A. 2010. Water Flow in Vadose Zone with Root Uptake: from Measurements and Models to Optimal Irrigation Notification. Conference of International Research on Food, security, Natural Resources, Management and Rural Development, September 14-16, Zurich, Switzerland.

Besharat, S., Nazemi, A. H., and Sadraddini, A.A. 2009. Modeling Soil Water Movement with Effect of Root Water Uptake in unsaturated Soil. Conference of International Research on Food, security, Natural Resources, Management and Rural Development, October 6-8, Hamburg, Germany.

Raof, M., Sadraddini, A.A. and Nazemi, A. H. 2009. Estimating Saturated and Unsaturated Hydraulic Conductivity in Steady State Conditions in Sloping lands. International Agricultural Engineering Conference, December 7-10, Bangkok, Thailand.

Besharat, S., Nazemi, A. H., and Sadraddini, A.A. 2008. Numerical solution of water flow in soil with root uptake. International Groundwater Symposium, June 18-20, Istanbul, Turkey.

Besharat, S., Nazemi, A. H., and Sadraddini, A.A. 2008. Simulating Soil Moisture by Integrating Root Water Uptake into Water Flow Model. Conference of International Research on Food, security, Natural Resources, Management and Rural Development, October 7-9, Torpanteg, Germany.

Nazemi, A.H., Hosseinzadeh Dalir, A. and Sadraddini, A.A. 2006. Water Resources Management: The Case of the Middle East. International Symposium on Drylands Ecology and Human Security (ISDEHS), Dubai, December 4-7.

Nazemi, A.H., Sadraddini, A.A., and Hosseinzadeh Dalir, A. 2006. Sustainable Agricultural Management of Dry Regions. International Symposium on Drylands Ecology and Human Security (ISDEHS), Dubai, December 4-7.