

# Hamed Ketabchi



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## PERSONAL INFORMATION

**Sure name:** Ketabchi  
**Given Name:** Hamed  
**Date of Birth:** January 1983

**Office:** Room A105, Department of Water Engineering and Management, Tarbiat Modares University, Tehran, Iran

**Office Tel:** +98-21-48292316  
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[Modares webpage](#)

[Google Scholar](#)

[ResearchGate](#)

[LinkedIn](#)

[Scopus](#)

[ORCID](#)

## EDUCATION

**Ph.D.** Civil Engineering, Civil Engineering Department, Sharif University of Technology, Tehran (2008-2014)

Ph.D. Thesis title: An efficient simulation-optimization model for coastal groundwater management

Ph. D. Courses (21 credits) with GPA 17.76 (out of 20)

Ph. D. Thesis score: Excellent

**M.Sc.**, Water Resources Engineering, Civil Engineering Department, Sharif University of Technology, Tehran (2006-2008)

M.Sc. Thesis title: Optimal management of coastal aquifers for control of saltwater intrusion using ant colony optimization

M.Sc. Courses (27 credits) with GPA 18.00 (out of 20)

**B.Sc.**, Civil Engineering, Iran University of Science and Technology, Tehran (2001-2005)

B.Sc. Courses (144 credits) with GPA 17.29 (out of 20)

## PUBLICATIONS

### International Journals

Citations: 1072

h-index: 15 (June 2022)

- Zaghiyan, M.R., **Ketabchi, H.**, Investigating the relationship between the river flow and dissolved solids concentration, *ICE's Water Management*, 175, 2, 89-97, 2022 (IF: 1.054)
- **Ketabchi, H.**, Jahangir, M.S., Influence of aquifer heterogeneity on sea level rise-induced seawater intrusion: A probabilistic approach, *Journal of Contaminant Hydrology*, 231, 103753, 2021 (IF: 3.188)
- Saghi-Jadid, M., **Ketabchi, H.**, Result-based management approach for aquifer restoration problems using a combined numerical simulation - parallel evolutionary optimization model, *Journal of Hydrology*, 125709, 2021 (IF: 5.722)
- Mehdizadeh, S.S., **Ketabchi, H.**, Ghoroghi, M., Hasanzadeh, A.K., Experimental and numerical assessment of saltwater recession in coastal aquifers by constructing check dams, *Journal of Contaminant Hydrology*, 231, 103637, 1-11, 2020 (IF: 3.188)
- Mostafaei-Avandari, M., **Ketabchi, H.**, Coastal groundwater management by an uncertainty-based parallel decision model, *ASCE Journal of Water Resources Planning and Management*, 146, 6, 04020036, 1-15, 2020 (IF: 3.054)
- **Ketabchi, H.**, Jahangir, M.S., Probabilistic numerical assessment of seawater intrusion overshoot in heterogeneous coastal aquifers, *Stochastic Environmental Research and Risk Assessment*, 33, 1951-1968, 2019 (IF:3.379)
- Ghadimi, S., **Ketabchi, H.**, Possibility of cooperative management in groundwater resources using an evolutionary hydro-economic simulation-optimization model, *Journal of Hydrology*, 578, 124094, 1-18, 2019 (IF: 5.722)
- Rajabi. M.M., **Ketabchi, H.**, Uncertainty-based simulation-optimization using Gaussian process emulation: Application to coastal groundwater management, *Journal of Hydrology*, 555, 518-534, 2017 (IF: 5.722)
- **Ketabchi, H.**, Mahmoodzadeh, D., Ataie-Ashtiani, B., Simmons, C.T., Sea-level rise impacts on seawater intrusion in coastal aquifers: Review and integration, *Journal of Hydrology*, 535, 235-255, 2016 (IF: 5.722)
- **Ketabchi, H.**, Mahmoodzadeh, D., Ataie-Ashtiani, B., Groundwater travel time computation for two-layer islands, *Hydrogeology Journal*, 24, 4, 1045-1055, 2016 (IF: 3.178)
- **Ketabchi, H.**, Ataie-Ashtiani, B., Assessment of a parallel evolutionary optimization approach for efficient management of coastal aquifers, *Environmental Modelling & Software*, 74, 21-38, 2015 (IF: 5.288)
- **Ketabchi, H.**, Ataie-Ashtiani, B., Review: Coastal groundwater optimization - advances, challenges, and practical solutions, *Hydrogeology Journal*, 23, 1129-1154, 2015 (The Theme Issue "Optimization for Groundwater Characterization and Management") (IF: 3.178)

- **Ketabchi, H.**, Ataie-Ashtiani, B., Evolutionary algorithms for the optimal management of coastal groundwater: A comparative study toward future challenges, *Journal of Hydrology*, 520, 193-213, 2015 (IF: 5.722)
- **Ketabchi, H.**, Mahmoodzadeh, D., Ataie-Ashtiani, B., Werner, A.D., Simmons, C.T., Sea-level rise impact on fresh groundwater lens in two-layer small islands, *Hydrological Processes*, 28, 5938-5953, 2014 (IF: 3.565)
- Mahmoodzadeh, D., **Ketabchi, H.**, Ataie-Ashtiani, B., Simmons, C.T., Conceptualization of a fresh groundwater lens influenced by climate change: A modeling study of an arid-region island in the Persian Gulf, Iran, *Journal of Hydrology*, 519, 399-413, 2014 (IF: 5.722)
- Ataie-Ashtiani, B., **Ketabchi, H.**, Rajabi. M.M., Optimal management of freshwater lens in a small island using surrogate models and evolutionary algorithms, *Journal of Hydrologic Engineering*, ASCE, 19, 2, 339-354, 2014 (IF: 2.064)
- Ataie-Ashtiani, B., Rajabi. M.M., **Ketabchi, H.**, Inverse modeling for freshwater lens in small islands: Kish Island, Persian Gulf, *Hydrological Processes*, 27, 2759-2773, 2013 (IF: 3.565)
- Ataie-Ashtiani, B., **Ketabchi, H.**, Elitist continuous ant colony optimization algorithm for optimal management of coastal aquifers, *Water Resources Management*, 25, 165-190, 2011 (IF: 3.517)
- Ghodousi, P., Afshar, M.H., **Ketabchi, H.**, Rasa, E., Study of early-age creep and shrinkage of pozzolanic concrete: A comparative study, *Scientia Iranica, Transaction A: Civil Engineering*, 16, 2, 126-137, 2009 (IF: 1.435)
- Rasa, E., **Ketabchi, H.**, Afshar, M.H., Predicting density and compressive strength of concrete cement paste containing silica fume using artificial neural networks, *Scientia Iranica, Transaction A: Civil Engineering*, 16, 1, 33-42, 2009 (IF: 1.435)
- Afshar, M.H., **Ketabchi, H.**, Rasa, E., Elitist continuous ant colony optimization algorithm: Application to reservoir operation problems, *International Journal of Civil Engineering*, 4, 4, 274-285, 2006 (IF: 2.081)

### ISC Journals in Persian

- Babaei, M., Mahmoodzadeh, D., Ketabchi, H., Saadi, T., Estimation of water balance components and analysis of variations using modeling and remote sensing approaches (Hashtgerd study area, Alborz province), *Iran-Water Resources Research*, 18 (1), 1-20, 2022
- Khanmohammadi, F., **Ketabchi, H.**, Decision model based on sustainability indicators for groundwater resources management (application to the case study of Namdan plain located in Fars province), *Iranian Journal of Soil and Water Research* 52 (12), 2951-2965, 2022
- Gharadaghi, M., **Ketabchi, H.**, Mohammad-Vali-Samani, J., Vulnerability of Lahijan-Chaboksar aquifer using comparative assessment of three indices of GALDIT, SINTACS, and AVI, *Hydrogeology* 6, 2, 109-129, 2022
- Mahmoodzadeh, D., **Ketabchi, H.**, Groundwater budget estimation of an over-exploited aquifer located in the arid climate of Iran (Part one: comparative and adaptive analysis

between 1972 and 2019), Iranian Journal of Soil and Water Research 52 (6), 1527-1542, 2021

- **Ketabchi, H.**, Mahmoodzadeh, D., Jalilvand, E., Groundwater budget estimation of an over-exploited aquifer located in the arid climate of Iran (Part two: calculation of different water budget components), Iranian Journal of Soil and Water Research, 52 (6), 1543-1556, 2021
- **Ketabchi, H.**, Mahmoodzadeh, D., Elahi, H.R., Investigation on urban groundwater flow and construction of subsurface concrete cutoff walls interaction using a numerical modeling approach (case study: Karbala city, Iraq), Iran-Water Resources Research, 16 (2), 243-258, 2020
- Babaei, M., **Ketabchi, H.**, Estimation of groundwater recharge rate using a distributed model case study of Rafsanjan aquifer, Kerman province), Iranian Journal of Soil and Water Research, 51 (6), 1457-1468, 2020
- Karami-Moghaddam, E., **Ketabchi, H.**, Global sensitivity analysis of a coastal groundwater simulation model using five methods (Lahijan-Chaboksar aquifer), Iranian Journal of Soil and Water Research, 51 (3), 603-615, 2020
- Shahbazi, A., Safari, F., **Ketabchi, H.**, Modeling of management measures taken to control groundwater level depletion (Hashtgerd plain, Alborz province), Iran-Water Resources Research, 16 (1), 116-134, 2020
- Kolahzari-Moghadam, F., **Ketabchi, H.**, Feasibility of applying a simulation-optimization model for assessment of decisions based on water-energy-food NEXUS considering the environmental damages, Iranian Journal of Ecohydrology, 7 (2), 313-329, 2020
- Safari, F., Shahbazi, A., **Ketabchi, H.**, Quality analysis and nitrate map of groundwater resources in Alborz province (Hashtgerd Plain), Journal of Water and Soil Conservation, 26 (5), 113-130, 2020
- Kazemi, H., **Ketabchi, H.**, Mohammad-Vali-Samani, J., Numerical simulation of Lahijan-Chaboksar coastal aquifer: Investigating the possible future scenarios, Iranian Journal of Soil and Water Research, 50 (9), 1-16, 2019
- Mostafaei-Avandari, M., **Ketabchi, H.**, Optimal extraction from coastal groundwater resources using parallel processing based simulation - optimization decision model (Case study of Ajabshir coastal aquifer, Iran), Iran-Water Resources Research, 15 (3), 33-48, 2019
- Shaban, E., **Ketabchi, H.**, Simulation of sulfur cycle using CE-QUAL-W2 model (Case study of Seymareh dam reservoir, Iran), Iran Water Research Journal, 13 (2), 151-161, 2019
- Saghi-Jadid, M., **Ketabchi, H.**, Restoration management of groundwater resources using the combined model of numerical simulation-evolutionary ant colony optimization, Iran-Water Resources Research, 15 (2), 119-133, 2019
- Ghadimi, S., **Ketabchi, H.**, Impact assessment of different management strategies implementation on the aquifer using numerical simulation (Case study: Namdan aquifer, Fars Province, Iran), Journal of Water and Soil Conservation, 25 (6), 1-23, 2018

- **Ketabchi, H.**, Nik-Khah, R., Morid, S., Numerical simulation of Namdan aquifer in the Fars province of Iran: Assessment of green water management impacts on the aquifer restoration, *Iran-Water Resources Research*, 14 (2), 128-141, 2018
- Farhoudi-Hafadaran, R., **Ketabchi, H.**, Numerical simulation of Urmia Lake and Ajabshir coastal aquifer interaction, *Iran-Water Resources Research*, 14 (1), 45-58, 2018
- Mahmoodzadeh, D., **Ketabchi, H.**, Feasibility of groundwater resources cooperative management considering the environmental damages using ant colony optimization, *Modares Civil Engineering Journal*, 17 (6), 205-219, 2018
- **Ketabchi, H.**, Mahmoodzadeh, D., Farhoudi-Hafadaran, R., Estimation of wetland-aquifer exchanges (Case study of Kaniborazan wetland), *Iranian Journal of Eco-hydrology*, 4 (3), 699-709, 2017
- Mahmoodzadeh, D., **Ketabchi, H.**, Ataie-Ashtiani, B., Effects of sea level rise and recharge rate variations on seawater Intrusion in confined aquifer, *Journal of Hydraulics*, 10 (4), 2016
- Mahmoodzadeh, D., **Ketabchi, H.**, Ataie-Ashtiani, B., Optimized management of groundwater resources in Kish Island: A sensitivity analysis of optimal strategies in response to environmental changes, *Journal of Water & Wastewater (Ab va Fazilab)*, 27 (2), 61-70, 2016
- **Ketabchi, H.**, Ataie-Ashtiani, B., Development of combined ant colony optimization algorithm and numerical simulation for optimal management of coastal aquifers, *Iran-Water Resources Research*, 7 (1), 1-12, 2011
- Rajabi, M.M., **Ketabchi, H.**, Ataie-Ashtiani, B., Numerical modeling of the freshwater lens in small islands (case study of Kish Island), *Journal of Hydraulics*, 6 (2), 45-56, 2011

### Selected International Conferences

- Osia, S.A., **Ketabchi, H.**, Investigating the polluting factors of urban water supply with nitrate: The case study of Tehran water supply system, 18th Iranian Hydraulic Conference, Faculty of Civil Engineering, University of Tehran, Tehran, Iran, 2020 (Accepted for Oral Presentation)
- **Ketabchi, H.**, Optimal Decision Models for Coastal Groundwater Management, Sino-Iranian Workshop on Water Environment, Xiamen, China, 2018 (Joint Program between Institute of Urban Environment, Chinese Academy of Sciences & Tarbiat Modares University, Iran National Science Foundation) (Accepted for Oral Presentation)
- **Ketabchi, H.**, Sea-Level Rise Impacts on Heterogeneous Coastal Aquifers: A Numerical Study on Salt Water Intrusion Behavior, 25th Saltwater Intrusion Meeting (SWIM), Gdańsk, Poland, 2018 (Accepted for Posters)
- Rajabi, M.M., **Ketabchi, H.**, Ataie-Ashtiani, B., An uncertainty-based decision model for managing coastal groundwater resources, 12th International Conference on Coasts, Ports and Marine Structures, Tehran, Iran, 2016 (Accepted for Oral Presentation)

- Rajabi, M.M., **Ketabchi, H.**, Ataie-Ashtiani, B., Managing groundwater resources within the framework of integrated coastal zone management, 11th International Conference on Coasts, Ports and Marine Structures, Tehran, Iran, 2014 (Accepted for Oral Presentation)
- **Ketabchi, H.**, Ataie-Ashtiani, B., Rajabi, M.M., Conceptual approach for seawater intrusion modeling in small islands, 6th International Perspective on Water Resources & the Environment conference (IPWE 2013), Izmir, Turkey, 2013 (Accepted for Oral Presentation)
- Rajabi, M.M., Ataie-Ashtiani, B., **Ketabchi, H.**, Recharge and aquifer response in small islands: A numerical approach, 34th IAHR World Congress, Brisbane, Australia, 2011 (Accepted for Oral Presentation)
- Rajabi, M.M., Ataie-Ashtiani, B., **Ketabchi, H.**, Inverse modeling for seawater intrusion in a freshwater lens: Parameter evaluation, model calibration and sensitivity analysis, case study of Kish Island, World Environmental & Water Resources Congress, (ASCE EWRI 2010), Rhode Island, USA, 2010 (Accepted for Oral Presentation)
- Rajabi, M.M., Ataie-Ashtiani, B., **Ketabchi, H.**, Recharge and aquifer response in small islands: A numerical approach (case study of Kish Island), 7th International Symposium on Managed Aquifer Recharge, (ISMAR – 2010), AbuDabi, United Arab Emirates (UAE), 2010 (Accepted for Oral Presentation)
- **Ketabchi, H.**, Ataie-Ashtiani, B., Combined use of ant colony optimization and numerical simulation algorithms in the improvement of the coastal groundwater exploitation schemes, The 7th International Conference on Calibration and Reliability in Groundwater Modeling, Wuhan, China, 2009 (Accepted for Oral Presentation)
- Afshar, M.H., **Ketabchi, H.**, Rasa, E., Elitist continuous ant colony algorithm to multim minima function optimization, The IASTED International Conference on Computational Intelligence, San Francisco, USA, 2006 (Accepted for Oral Presentation)
- Afshar, M.H., Rasa, E., **Ketabchi, H.**, An automatically mutated elitist compact genetic algorithm, The IASTED International Conference on Computational Intelligence, San Francisco, USA, 2006 (Accepted for Oral Presentation)

## Reports

- Valipour, E., **Ketabchi, H.**, Interactions between science and policy contexts in the groundwater resources sustainability, Islamic Parliament Research Center of The Islamic Republic Of Iran, Head of Research and production, Department of Water and Environment, Iran, 2021
- **Ketabchi, H.**, Mahmoodzadeh, D., Ghadimi, S., Saghi-Jadid, M., A review of groundwater resources balance in Iran: Methods and suggestions, Islamic Parliament Research Center of The Islamic Republic Of Iran, Head of Research and production, Department of Water and Environment, Iran, 2018

## Books

- Ataie-Ashtiani, B., **Ketabchi, H.**, Groundwater hydraulics and contamination, Sharif University Publication, PP.1030, 2014 (In Persian)

- **Ketabchi, H.**, Saghi-Jadid, M., Result Based Management (Approach to Water Resources and Environmental Management), Talab Publication (WetlandPress), PP. 130, 2018 (In Persian)

## INTERESTS

- Hydrogeology (Groundwater modeling - Groundwater contamination - Density dependent flows - Seawater intrusion)
- Hydro-informatics and Soft Computation (Evolutionary optimization - Surrogate modeling - Parallel computing - Uncertainty analyses)
- Groundwater resources management
- Climate change impacts
- Water quality modeling and management
- Environmental engineering issues

## AWARDS

First Rank student in High School Entrance exam (National), 1997

First Rank student in High School students, 1997-1998 with GPA 19.53 (out of 20)

Distinguished student in Mathematics and Computer Sciences Olympiad, 1998, 1999

First Rank student in pre-university students, 1999 with GPA 19.54 (out of 20)

First Rank student in B.Sc. among the students of Civil Engineering Department, Iran University of Science and Technology, Tehran, Iran, with GPA 17.29 (out of 20)

First Rank student in M.Sc. among the students of Civil Engineering Department, Sharif University of Technology, Tehran, Iran, with GPA 18.00 (out of 20)

Award of the distinguished student of Civil Engineering College in education, in academic years 2001-02 (1<sup>st</sup> Rank), 2002-03(1<sup>st</sup> Rank), and 2003-04(1<sup>st</sup> Rank)

Award of the Distinguished Student of Civil Engineering College in research, in academic years 2003-04 and 2004-05 among undergraduate students

Award of the active member of Students Scientific Association of Iran University of Science and Technology

Award of 1<sup>st</sup> place in Concrete Competitions of Concrete Day, in the field of Concrete Water Absorption, October 2003, Tehran, Iran

3<sup>rd</sup> Rank in Concrete Cube Competitions of Concrete Day, in the field of Concrete Cube Competition, October 2003, Tehran, Iran

Placing 4<sup>th</sup> and 7<sup>th</sup> in 2004 Concrete Projects (Paper) Competition of American Concrete Institute (ACI), held in San Francisco, CA

The Best Paper Award for the best paper presented in Hydraulic conference, Tarbiat Modares University, 2010



The Best Paper Award for the best paper presented in Hydraulic conference, Tehran University, 2013

The Best Ph.D. Research, Tavakoli award, Department of Civil Engineering, Sharif University of Technology, Tehran, Iran., 2014

Distinguished Reviewer of Iran-Water Resources Research Journal, 2016 and 2020

## Members

- Member of reviewers for (2011-present)
  - Best Book of Islamic Republic of Iran, Engineering part (2014-2015)
  - Urmia Lake Restoration Program Reports
  - MSRT – BMBF (Iran-Germany) Joint Mobility-2018 Proposals
  - Nature Geoscience
  - Science of the total Environment
  - Journal of Contaminant Hydrology
  - Ain Shams Engineering Journal
  - Environmental Science and Pollution Research
  - Transport in Porous Media
  - Hydrological Processes
  - Hydrogeology Journal
  - Journal of Hydrologic Engineering (ASCE)
  - Journal of Hydrology
  - International Journal of Operational Research
  - Water Management
  - Scientia Iranica
  - Environmental Modelling & Software
  - Computers and Geosciences
  - Advances in Water Resources
  - Journal of Environmental Management
  - Iranian Journal of Water and Soil Research
  - Iran-Water Resources Research Journal
  - Journal of Hydraulics
  - Journal of Water & Wastewater (Ab va Fazilab)
  - Modares Civil Engineering Journal
  - Journal of Water and Irrigation Management
  - Water Engineering Journal
  - Civil Engineering Sharif Journal
  - Water and Sustainable Development Journal
- Member of Society of Iranian Value Engineering (2017-present)
- Member of Iranian Hydraulic Association (2013-present)
- Member of Iranian River Engineering Association (2020-present)
- Head of Groundwater Specialized Group (Iranian Water Resources Association) (2021-present)
- Associate Editor for Groundwater resources Special Issue (Iran-Water Resources Research-IWRR) (2022)

- Member of Tehran Engineering & Technical Consulting Organization (Surface water and River Reclamation Commission) (2019-present)
- Member of reviewers for Best Book of Islamic Republic of Iran, Engineering part (2014-2015)

## SKILLS

**Computer Programming:** FORTRAN, MATLAB, PASCAL.

**Software:** AUTOCAD, SAP, ETABS, SEWERCAD, WATERCAD, CE-QUAL-W2, SWAT, GIS Software, GMS, MINITAB, SPSS, SUTRA, MODFLOW, CHEMGLO, TECPLOT, WINSURF, GID, GMSH.

**Language:** able to read, write, and communicate in Farsi, Turkish, and English.

## EXPERIENCE

### Academic

- Faculty member (Associate Professor), Tarbiat Modares University, Water Resources Engineering Department (2015-present)
- Supervisor/advisor of graduate students (2013-present)
  - Saman Nourian (2022-present), M.Sc. "-", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
  - Sina Hashemi (2022-present), M.Sc. "-", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
  - Fatemeh Shaker-Soureh (2021-present), Ph.D. "-", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
  - Mohammad Mahdi Rasouli (2021-present), M.Sc. "Simulation of quantitative and qualitative interaction between groundwater resources and wetland: Investigation on methods and application to a real case study", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi, Advisor: Davood Mahmoodzadeh
  - Mohammad Ghaffari (2021-present), M.Sc. "Simulation of groundwater resources recharge behavior affected by human activities: Methods and applied real case study", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi, Advisor: Davood Mahmoodzadeh
  - Ali Heydari-Habash (2021-present), M.Sc. "Designing a simulation game of groundwater systems for the purpose of training and capacity building of actors", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Ali Bagheri, Advisor: Hamed Ketabchi
  - Arezoo Mohataram (2021-present), M.Sc. "Downscaling groundwater storage derived from GRACE satellite using statistical and machine learning methods", Department of Water Engineering and Management, Tarbiat Modares University, Supervisors: Hossain Shafiezhadeh-Moghaddam and Hamed Ketabchi
  - Sahar Eghbalian (2020-present), Ph.D. "Investigating the relationship and interaction between irrigation management and groundwater resources status using a combined modeling approach", Department of Water Engineering and Management, Tarbiat Modares University, Supervisors: Hamed Ketabchi and Fariborz Abbasi
  - Shiva Rajaeian (2020-2022), M.Sc. "Optimal decision-making based on water accounting indicators using modeling of pollutant transport in groundwater system", Department of Civil and Environmental Engineering, Amir Kabir University of Technology, Supervisors: Taghi Ebadi and Hamed Ketabchi

- Farshad Hesamfar (2020-2022), M.Sc. "Equity-based optimal management of groundwater pollutant using a decision-making approach based on combined simulation-optimization", Department of Civil and Environmental Engineering, Amir Kabir University of Technology, Supervisors: Taghi Ebadi and Hamed Ketabchi
- Seyyed Mostafa Vafeghi (2020-present), M.Sc. "Conceptualization of surface water – groundwater resources interaction using a modeling-based approach", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi, Advisors: Ramiz Namvar-Golian and Davood Mahmoodzadeh
- Hossain Sadeghi-Jahani (2020-present), M.Sc. "Spatio-temporal environmental sustainability analysis of groundwater resources using a combined approach of field and remote sensing information", Department of Water Engineering and Management, Tarbiat Modares University, Supervisors: Hamed Ketabchi and Hossain Shafiezhadeh-Moghaddam
- Elmira Valipour (2019-present), Ph.D. "Equity-based allocation of groundwater resources using a simulation – optimization model", Department of Water Engineering and Management, Tarbiat Modares University, Supervisors: Hamed Ketabchi and Reza Safari-Shaly, Advisor: Saeed Morid
- Farzaneh Khan-Mohammadi (2019-2021), M.Sc. "Decision model based on sustainability indicators for groundwater management: Application to a real case study", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
- Faraz Kolahzari-Moghaddam (2018-2021), M.Sc. "Decision model based on water-energy-food NEXUS for groundwater resources management", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
- Mohammad Babaei (2018-2020), M.Sc. "Simulation model based on accurate recharge component of groundwater balance (Case study of Rafsanjan aquifer, Kerman province, Iran)", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
- Maedeh Gharadaghi (2017-2019), M.Sc. "Comparative assessment of the vulnerability methods of coastal aquifers to seawater intrusion and their improvement using fuzzy optimization approach", Department of Water Engineering and Management, Tarbiat Modares University, Supervisors: Jamal Mohammad-Vali-Samani and Hamed Ketabchi
- Esmael Karami-Moghaddam (2017-2019), M.Sc. "Global sensitivity analysis of coastal groundwater simulation models (case study of a coastal aquifer located in the Guilan Province, Iran)", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
- Mohammad Mostafaei-Avandari (2017-2019), M.Sc. "Development of uncertainty-based decision model for optimal coastal groundwater management (case study of Ajabshir coastal aquifer, Iran)", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
- Farshid Safari (2017-2019), M.Sc. "Quantitative and qualitative groundwater modeling in Alborz province (case study of Hashtgerd plain)", Environmental Sciences Research Institute, Shahid Beheshti University, Supervisor: Afsaneh Shahbazi, Advisor: Hamed Ketabchi
- Hadiseh Kazemi (2016-2018), M.Sc. "Quantitative and Qualitative simulation of coastal aquifer under different management strategies (Case study of Lahijan-Chaboksar's coastal aquifer, Guilan province, Iran)", Department of Water Engineering and Management, Tarbiat Modares University, Supervisors: Jamal Mohammad-Vali-Samani and Hamed Ketabchi
- Sahand Ghadimi (2016-2018), M.Sc. "Evolutionary hydroeconomic – optimization model for cooperative management of groundwater resources (Case study of Namdan plain, Fars Province, Iran)", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
- Mahdi Saghi-Jadid (2016-2018), M.Sc. Thesis: "Result-based management of groundwater resources using simulation – optimization model (Case study of Namdan plain, Fars Province, Iran)", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
- Roohangiz Nik-Khah (2015-2017), M.Sc. "Assessment of joint green and blue water management using SWAT and MODFLOW models", Department of Water Engineering

and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi, Advisor: Saeed Morid

- Eskandar Shaban (2015-2017), M.Sc. "Simulation of Sulfur cycle in deep water systems", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
  - Reza Farhoudi-Hafdaran (2015-2017), M.Sc. "Investigation of Urmia Lake saltwater and an adjacent coastal aquifer interaction", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
  - Maryam Bardeji (2014-2016), M.Sc. "Assessment and conceptualization of the environmental effects on coastal groundwater systems behavior", Department of Water Engineering and Management, Tarbiat Modares University, Supervisor: Hamed Ketabchi
  - Davood Mahmoodzadeh (2011-2013), M.Sc. "Sea-level rise effects on seawater intrusion in coastal aquifers", Civil Engineering Department, Sharif University of Technology, Supervisors: Behzad Ataie-Ashtiani and Hamed Ketabchi
- Teacher (Advanced Engineering Hydrology, Engineering Hydrology), Sharif University of Technology, (for M.Sc. and B.Sc. Students) (2015)
  - Teacher (Advanced Groundwater Engineering), Amir Kabir University of Technology, (for M.Sc. and Ph.D. Students) (2015-2016, 2018-2019, 2019-2020)
  - Teacher, (Environmental Engineering, Water Conveyance Structures, System Engineering, Groundwater Engineering), University of Science and Culture, Tehran, (for B.Sc. Students) (2013- present)
  - Teacher, (Groundwater Engineering, Fluid Mechanics, Open Channel Hydraulics, Engineering Hydrology, System Engineering, Engineering Ethics, Numeical Analysis, Differential Equations, Mathematics), Alaodoleh Semnani Institute of Higher Education, (for B.Sc. Students) (2006-2013)
  - Academic and research vice-president, Alaodoleh Semnani Institute of Higher Education, (2009-2013)

### Professional

- Project manager, Research and assessment on Iran's aquifer restoration plan effectiveness: Presentation of improvement scheme for a pilot area and study, adaption, and use of similar international plans (Hashtgerd study area), (Client: Regional Water Company of Alborz), Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2022-present)
- Project manager, Sustainable Groundwater Management Act (SGMA) and its efficiency: Lessons for Iran, (Client: Iran Chamber of Commerce, Industries, Mines and Agriculture), Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2022-present)
- Project manager, Investigation and analysis of the effects of implementing modern irrigation projects on the water table of aquifers, (Client: Iran Water Resources Management Company) Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2021-present)
- Project manager, Identification and control of human effective factors on the groundwater recharge according to the restoration of the country's aquifers, (Client:

Iran Water Resources Management Company), Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2021-present)

- Project manager, Development of methodology and assessment of surface water and groundwater resources interaction, (Client: Regional Water Company of Isfahan), Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2020-present)
- Project manager, Feasibility study of water accounting system development in Garmsiri region, (Client: Iran Water & Power Resources Development Company - IWPCO), Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2019-2020)
- Project manager, Identification of uncertainties and errors in estimation of water balance components and providing the appropriate solutions, (Client: Regional Water Company of Alborz), Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2019-present)
- Project manager, Numerical modeling of groundwater system (quantity and quality) for development project of Imam Hossain (PBUH) Holy Shrine, Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2017-2019)
- Project manager, Study for accurate groundwater resources balance of Rafsanjan Plain, (Client: Iranian Water Policy Research Institute), Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2017-2019)
- Project manager, National plan and strategies for climate change adaption (groundwater modeling section), (Client: Ministry of Energy), Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2016-2018)
- Project manager, Water quality monitoring guideline (Client: MG Co.), Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2016-2017)
- Project manager of Groundwater Engineering Section, Determination of environmental water demand for wetlands and rivers of Urmia Lake watershed (Estimation of wetland-aquifer exchanges - Urmia Lake watershed wetlands), Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2015-2017)
- Project manager, Environmental studies for Salalah flood protection dam scheme, Oman (Client: MG Co.), Research Institute of Water Engineering and Management (RIWEM), Tarbiat Modares University (2015-2016)
- Technical consultant, MG Co., The section of Water, Soil, and Environmental studies (2014-present)

Some projects:

- Salalah flood protection dam scheme, Oman
- Uma Oya multi-purpose development project, Sri Lanka
- National water quality management plan development, Iran

- Monitoring and evaluation for ICZM program, Iran
- Environmental and societal regulatory study for phase 11 of South Pars gas field (Total S.A., France, and Pöyry Consulting Engineering Co., Switzerland), Iran
- Garmsiri Project, water and soil quality studies, Iran
  
- Technical consultant, Aspire Zone, Qatar hydrogeological study and groundwater resource development: Dewatering pumping well field and groundwater transmission pipeline, Aali Saz and Hyder Consulting Engineering Companies (2013-2014)
- Project expert, Study of optimum usage of groundwater resources in Kish Island), Kish Free Zone Organization, Sharif University of Technology (Project Director: Behzad Ataie-Ashtiani) (2007-2012)
- Technical Reviewer of research proposals and projects, in Iran Water Resources Management Company, Practical Research Section (2014-present)

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