

IN THE NAME OF GOD  
**Curculium Vita**

**Personal information**



**Associate professor**

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**Address:** Dept. of Irrigation engineering, Faculty of Agriculture, Tarbiat Modarres University, P.O box: 14115-336. Tehran, Iran.

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**Scientific experiences**

**Educations:**

**B.Sc.** Tehran University 1985. Tehran. Iran

**M.Sc.** International Institute for Hydraulic and Environmental Engineering (I.H.E). 1989. Delft, Netherlands.

**Ph.D** Tarbiat Modarres University (T.M.U),1997. Tehran. Iran.

**Journal Papers:**

Ghorbani Dashtaki, S. Homae, M. Mahdian, M.H. **Kouchakzadeh, M.** 2009. Site-Dependence Performance of Infiltration Models. Water Resources Management. 23:2777-2790 DOI 10.1007/s11269-009-9408-3

Samani, J.M.V. Samani, H.M.V. Halaghi, M.M. and **Kouchakzadeh, M.** jan. 2010. One-dimensional Numerical Model of Cohesive Sediment Transport in Open Channel Flow. Journal of Agricultural Science and Technology. 12(1):61-69. Tehran.Iran.

Khashei-Siuki, A. **Kouchakzadeh, M.** and Ghahraman, B. 2011. Predicting Dryland Wheat Yield from Meteorological Data Using Expert System, Khorasan Province, Iran. J. Agr. Sci. Tech. 627-640:13.Tehran. Iran.

Alikhasi,M. **Kouchakzadeh,M.** and Baniani, E. 2012. The Effect of Treated Municipal Wastewater Irrigation in Non-Agricultural Soil on Cotton Plant. J. Agr. Sci. Tech.14: 1357-1364 . Shiraz. Iran.

Khashei-siuki, A. Tadayoni navaei,. Ghahraman, B. and **Kouchakzadeh, M.** EMPSACO: An Improved hybrid optimization Algorithm Based on Particle Swarm, Ant Colony and Elitist Mutation Algorithms.2013. IJST, Transactions of Civil Engineering,. 37, ( C+): 491-501. Shiraz. Iran.

Hosseinzadeh Talae, P. **Kouchakzadeh, M.** Shifteh Some'e B. Homogeneity analysis of precipitation series in Iran.2013. Theor Appl Climatol DOI 10.1007/s00704-013-1074-y

Motahari,M. Ejlali,F. Alizadeh,M.J. **Kouchakzadeh,M.** 2014. Application of Unsteady Approach in Determination of Design Parameters of Underground Drainage System (Case Study: Experimental Farm of Human Resources and Agricultural Development Center, Mazandaran, Iran). International Journal of Hydraulic Engineering.3(2):61-67,DOI: 10.5923/j.ijhe.20140302.02.

Alikhasi, M., **Kouchakzadeh, M.**, Tavakoli, A., Tahmasebi, R. and Mokhtassi-Bidgoli, A. 2014. Evaluation of rainwater harvesting system and supplemental irrigation effect on yield and yield components in barley. Eco. Env. & Cons. 20 (3) :887-897 - Copyright@ EM International - ISSN 0971-765X.

Samani,J.M.V. Homae, M. **Kouchakzadeh, M.** and Fathi, P. 2007. Simultaneous prediction of saturated hydraulic conductivity and drainable porosity using inverse problem technique. Article In Journal of Irrigation and Drainage Engineering April 2007

Samani, J.M.V. Homae, M. **Kouchakzadeh, M.** A simple method for simultaneous prediction of saturated hydraulic conductivity and effective porosity, Journal of agricultural engineering research, summer 2005, volume 6, number 23, p.158

## **And 31 more journal papers in PERSIAN**

### **Conference Papers:**

Shahabifar, M., Chaichi, M., **Kouchakzadeh, M.** 2009. Estimation of regional reference evapotranspiration from land surface temperature and co-kriging method at Tehran province, Iran. World environmental and water resources congress, Kansa city, Missouri, USA, May 2009, 4338-4346

**Kouchakzadeh, M.** Banihashemi, M.A. 1997. An unsaturated flow model for evaluation of flood spreading projects. proceedings of the 8th international conference on rainwater catchment systems April 1997 Tehran, Iran, 225-231.

Rahimi khoob A, **Kouchakzadeh, M.**, Mohammad Vali Samani, J.2009. Comparison of split-window Algorithms for estimating land surface temperature using AVHRR data in Oroomieh lake basin. international seminar on satellite technology applications in communications and remote sensing, 9-15 October Tehran, Iran.

Assari,M. **Kouchakzadeh,M.** Shahabifar,M. Mirlatifi,M.2007. Evaluation of Evaporation-Measuring Equipments for Estimating Evapotranspiration within a Greenhouse. International Agricultural Engineering Conference, 3-6 december 2007, Bangkok, Thailand(IAEC Ref. 452)

Shahabifar,M. Assari,M. **Kouchakzadeh, M.** Mirlatifi, M.2007. Investigating the Precision of Common Methods in Standard Grass Reference Crop Evapotranspiration Prediction by Lysemeteric Data in Greenhouse”, International Agricultural Engineering Conference, 3-6 december 2007, Bangkok, Thailand(IAEC Ref. 453)

Kamali Pashakolaie, , M.I. **Kouchakzadeh,M.** Shahabifar,M. Eftekhari, K. 2007. Irrigation Scheduling Using GIS and Geo-Statistics: A Case Study in ABHAR-Khoramdareh Plain of Iran . International Agricultural Engineering Conference, 3-6 december 2007, Bangkok, Thailand(IAEC Ref. 450)

Kamali Pashakolaie,M.I. Assari, M. **Kouchakzadeh, M.** 2007. Regional Analysis for Agricultural Pollution of Ground Water Using GIS and Geo-Statistics. International Agricultural Engineering Conference, 3-6 december 2007, Bangkok, Thailand(IAEC Ref. 451)

Khashei Siuki, A. **Kouchakzadeh, M.** and Shahabifar, M. 2007. Effects of Natural Zeolite Application and Soil Moisture on Yield Factors of Corn (*Zea mays* L.). International Agricultural Engineering Conference, 3-6 december 2007, Bangkok, Thailand(IAEC Ref. 324)

Ahmadizadea, M. Khashei Siukib, A. **Kouchakzadeh,M.** Riahi, H. Sarvarian, J. (2008). Investigation of soil water content changes with time and influence of natural zeolite of Clinoptilolite on it in sandy loam soil. Iran International Zeolite Conference (IIZC-08-189) April 29 - May1, 2008, Tehran

Khashei Siukia, A. **Kouchakzadeh, M.** Riahi, H. Ahmadizadeh, M. Navabzadee, M. (2008) Consideration the effect of the Clinoptilolite zeolite in improvement of chemical characteristics of light soils. Iran International Zeolite Conference (IIZC-08-190) April 29 - May1, 2008, Tehran –Iran

Khashei Siukia, A. **Kouchakzadeh, M.** Riahi, H. Zangeneh Sirdarid, Z. (2008). Investigating the Effects of Natural Zeolite Clinoptilolite on Natural Trend of Maize Growth. Iran International Zeolite Conference (IIZC-08-193) April 29 - May1, 2008, Tehran –Iran

**And 40 more conference papers in PERSIAN**

## **Ph.D thesises supervised.**

Fatemeh Nayebloie, **Mahdi Kouchakzadeh**, Kumars Ebrahimi, june 2015, 124 p. Assessment of soil moisture and nitrate in subsurface drip irrigation using treated municipal wastewater.

Mahdi Alikhasi Habibabadi, **Mahdi Kouchakzadeh**, Alireza Tavakkoli, spring 2014, 178 p. Applied water productivity improvement in barley cultivate with rainwater harvesting system and limited irrigation.

Abbas Khashei siuki, **Mahdi Kouchakzadeh**, Bijan Ghahraman, june 2011, 204 p. Developing a pumping model from groundwater resources for optimal cropping pattern and intensification, A case study: Nayshbour plain.

Ali Rahimi khob, **Mahdi Kouchakzadeh**, Jamal Mohammadvali samani, Foroud Sharifi, spring 2005, 141 p. Determination of regional scale reference evapotranspiration using NOAA satellite images, A case study: Oroomieh lake basin.

Mahdi Shahabifar, **Mahdi Kouchakzadeh**, Mohsen Mohammadzadeh, Majid Mirlatifi, winter 2004, 125 p. Estimation of regional evapotranspiration using geostatistics and geographic information system (GIS) in Tehran province, Iran.

## **M.Sc thesises supervised**

Samira Ghaderi Monfared, **Mahdi Kouchakzadeh**, Jaefar Nikbakht, March 2014, 115 p. Impact of climate variations on crop evapotranspiration value (case study: Varamin-Tehran plane).

Foroogh Abbasi Tashnizi, **Mahdi Kouchakzadeh**, Fariborz Abbasi, March 2014, 91 p. Lysimeter study of water movement and fecal coliform transport in treated wastewater under drip irrigation.

Farid Feyzolahpour, **Mahdi Kouchakzadeh**, Fariborz Abbasi, summer 2014, 81 p. Effect of split application of urea in furrow fertigationon nitrogen losses and maize yield.

Mansoureh Mehrabi, **Mahdi Kouchakzadeh**, Kumars Ebrahimi,feb 2013, 133 p. Laboratory study on magnetic water treatment and its effect on brakish water.

Narjes Moazenzadeh, **Mahdi kouchakzadeh**, Jaefar Nikbakht, spring 2013, 112 p. Evaluation and calibration of simple reference evapotranspiration equations in north west of Iran.

Meysam Motahari, **Mahdi Kouchakzadeh**, Farid Ejlali, june 2012, 110 p. The evaluation of design parameters of subsurface drainage systems and validation of DRAINMOD model for paddy fields, Case study: The center of human resources and agricultural development of Haraz.

Zohre Dehghan, **Mahdi Kouchakzadeh**, Saied Morid, Feb 2012. 125 p. Irrigation Distribution networks' vulnerability to climate changes, A case study on Bilesavar pressurized irrigation network.

Parvaneh Salehi moghaddam, **Mahdi Kouchakzadeh**, Asadallah Mohseni movahhed, winter 2011 , 162 p. Developing a model for evaluation, design and performance optimization of basin irrigation.

Seifollah Khodadadi, **Mahdi Kouchakzadeh**, Mirmasoud Kheirkhah, November 2010, 114p. Site selection and ranking the susceptible vadies for subsurface dam construction using spatial multicriteria evaluation (SMCE) : Case study in Darian and Heris catchment areas.

Ali Alikhasi, **Mahdi Kouchakzadeh**, Ramezan Tahmasebi, September 2010, 78 p. Identifying potential areas for rainwater harvesting in Tehran province using GIS.

Davud Fathi, **Mahdi Kouchakzadeh**, Borhan Sohrabi, August 2009, 95 p. Evaluation of the effect of irrigation methods, various levels of water and nitrogen fertilizer on quantity and quality of cotton.

Ruhullah Yari, **Mahdi Kouchakzadeh**, Jamal Mohammadvali samani, winter 2009, 112p. Comparison of PMWIN and artificial neural network for qualitative and quantitative simulation of groundwater.

Maryam Chaychi, **Mahdi Kouchakzadeh**, Mahdi Shahabifar, Autumn 2008, 157 p. Estimation of regional reference evapotranspiration using geostatistics and remot sensing techniques, a case study: Tehran province.

Mahdi Alikhasi habibabadi, **Mahdi Kouchakzadeh**, Ebadollah Baniyani, June 2008, 55 p. Impact of treated Municipal Wastewater irrigation on cotton plant.

Mohammad ismail Kamali pashakolaie, **Mahdi Kouchakzadeh**, Mahdi Shahabifar, June 2008, 106 p. Irrigation scheduling using geostatistics and geographic information system(GIS), A case study: in Abhar-Khorramdarreh plain.

Mostafa assari, **Mahdi Kouchakzadeh**, Mahdi Shahabifar, September 2007, 119 p. Investigating the precision of common methods in standard grass reference crop evapotranspiration prediction by lysimetric data in greenhouse.

Abbas Khashei siuki, **Mahdi Kouchakzadeh**, Mahdi Shahabifar, summer 2006, 110 p. Effect of natural zeolite consumption on irrigation scheduling and yield of corn.

Manizheh Izadi, **Mahdi Kouchakzadeh**, Jamal Mohammadvali samani, December 2004, 84 p. Effect of rate, duration and frequency of surge on uniformity in surge irrigation.

Aref Bahmani, **Mahdi Kouchakzadeh**, Saied Morid, October 2004, 110 p. Application of artificial neural networks for estimating reference evapotranspiration to decrease required input parameters in Tehran region.

Naser Jamali vardough, **Mahdi Kouchakzadeh**, karim Shiati, spring 2003. 176 p. Investigation of proper volumetric water delivery methods in irrigation networks in Iran.

Vorya Sofi ahmadi, **Mahdi Kouchakzadeh**, Mahdi Homaei, winter 2003, 97 p. Evaluation of infiltration models in Entisols

Sina Besharat, **Mahdi Kouchakzadeh**, Mahdi Homaei, February 2003, 100 p. Initial soil moisture influence on advance trajectory in Entisols

Hosein Jafari, **Mahdi Kouchakzadeh**, Asadallah Ghazimoradi, winter 2002, 102 p. Studying the flow through the rounded rockfill porous media 10 – 20 Cm. diameter.

Fatemeh Keykhaei, **Mahdi Kouchakzadeh**, Hosein Aroee, winter 2002, 100 p. Investigation of the effect of PR-3005-A superabsorbent polymer on water consumption and some quantitative and qualitative characteristics of Flax.

Yousef Rasoli, **Mahdi Kouchakzadeh**, Kourosch Mohammadi, spring 2001, 156 p. Simulation of groundwater flow Fashafoye plain using MODFLOW.

Morteza Ansari, **Mahdi Kouchakzadeh**, Hasan Rahimi, winter 2001, 114 p. Determining the best unsaturated hydraulic conductivity model of soils, A case study: Farm of agricultur faculty of Karaj.

Naser Ganji khorramdel, **Mahdi Kouchakzadeh**, Ali asghar Farshi, Autumn 1999, 165p. The effect of water superabsorbent (PR-3005-A) on some soil physical properties.

### **M.Sc thesises cosupervised**

Asrin Takamoli, Farid ejlali, **Mahdi Kouchakzadeh**, Mahmoud Mashal, September 2004, 118 p. Evaluating groundwater resources of Silakhor plain using PMWIN.

Reza Gharekhani, Jamal Mohammadvali samani, **Mahdi Kouchakzadeh**, winter 2004 , 117 p. Hydraulics and discharge flow in emergent and submerge simulated vegetation channels.

Amin Mardani, Farid ejlali, Siavash Tatleri, **Mahdi Kouchakzadeh**, June 2003, 105 p. Determination of rice consumptive use in Doroodzan Fars irrigation and drainage network and created errors analysis in Doroodzan design scheduling.

Morteza Golabchi gilany, Mohammad ali Banihashemi, **Mahdi Kouchakzadeh**, April 2001, 88 p. Investigation intakes without control structures for condition of super critical flow.

Farzad Hassanpour, Seyed Ali Ayyobzadeh, Masoud Tajrishi, **Mahdi Kouchakzadeh**, summer 2000, 150 p. Determining critical sediment deposition points and optimal dredging reaches by mathematical models, A case study: Sistan river.

Parviz Fathi, Jamal Mohammadvali samani, **Mahdi Kouchakzadeh**, Autumn 1999, 160 p. Determination of Hydraulic conductivity and effective porosity in drainage using optimization technique.

Ali Oveisi, Mohammad ali Banihashemi, **Mahdi Kouchakzadeh**, 1999, 85 p. Energy loss investigation in abrupt expansion with free surface supercritical flow.

## **Courses Taught:**

### **B.Sc.**

Fluid Mechanics  
Irrigation principles and practices  
Design principles of irrigation and drainage networks  
Computer programming

### **M.Sc.**

Flow in porous media  
Numerical methods  
Surface irrigation  
Sprinkle irrigation  
Advanced hydrology  
Ground water hydraulics  
Computer programming  
Seminar

### **Ph.D**

Surface irrigation hydraulics  
Advanced topics in soil physics  
Seminar

## **Experiences and Positions**

Member of water committee, ministry of Jihad-e-Sazandegi  
Head of water committee, ministry of Jihad-e-Sazandegi, kordistan province.  
Faculty member, Tarbiat Modarres University. 1992-To be continued.  
Deputy head of Irrigation engineering Dept.  
Member of faculty research committee.  
Head of laboratory of irrigation engineering dept.  
Member of Islamic Consultative Assembly (national parliament of Iran). 2004-2016.