[**Professor Jahangir Abedi-Koupai**](http://abedi-koupai.iut.ac.ir/)

Birth Date: 1959

Address:  
Dr. J. Abedi-Koupai  
Professor of Water Resources  
College of Agriculture  
Isfahan University of Technology  
Postcode 54156  
Isfahan  
Iran  
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Research interests:

Water Resources, Water and Soil pollution and Remediation, unconventional Water, Wastewater Reuse Management, Flow through porous media, Geotechnics of Hydraulic Structures, Soil/Water/plant relations,Soil Physical, Mechanical and Hydraulic Properties

Educational Background:

Degree: Field of study University City Country Year

B.Sc. Irrigation Eng. Isfahan Uni. of Technology Isfahan Iran 1980

M.Sc. Hydraulic Structures Uni. of Tarbiat Modarres Tehran Iran 1990

Ph.D Water Resources Uni. of NSW Sydney Australia 1996  
(Flow through porous media)

Courses taught for under graduates (B.Sc. students):

1 - Irrigation Eng. 2- Open Channel Hydraulics  
3- Water Resources Management 4- Fluid Mechanics  
5- Design of Water conveyance Structures 6- Hydraulics  
7- Water supply 8- Hydrotechnics

Courses taught for graduates (M. Sc. Students):

1- Flow through porous media  
2- Advanced Soil physics  
3- Groundwater  
4-Water Resources Engineering

Courses taught for post graduates (Ph. D. students):

1-Mathematical models in soil physics  
2-Flow through porous media  
3-Infiltration and Seepage of Water in Soil

Research activities ( M. Sc thesis under my supervision):

-Soil Moisture Distribution Pattern From a Point Source Under Pulsed Water Application  
-Investigation the Effect of treated Wastewater on Hydraulic Properties of Emitters in Drip Irrigation System  
- The Effect of Treated Wastewater and irrigation System on physical, Chemical and Pollution of Soil Under Some Crops  
-Study the Seepage of Concrete Canal Lining Containing Rice Husk

-Study the Mechanical Properties of Canal Lining Containing Rice Husk Ash in the Sulfate Environments  
-Evaluation of the Pollutant Potential of Isfahan Landfill on Groundwater

-Evaluation of superabsorbent on soil water retention in Ardestan watershed

-Estimation of non-uniform flow resistance in gravel bed rivers – special case: Gamasiab river  
-Evaluation and Comparison of Clay Jar Irrigation with Furrow and Drip Irrigation of Geranium Plant.  
-Determination of the Appropriate Empirical Relationships for Estimating the Concentration Time of Basins  
-Flow Characteristics of Circular Crested Weir  
-Mathematical and Management Model of Groundwater with Emphasis on Artificial Recharge Applied to Damaneh Fereydan Plain

Published Papers:

1. Abedi-Koupai, J. and H. Mahdizadeh, 2008. Estimation of Osmotic Suction from Electrical Conductivity and Water Content Measurements in Unsaturated Soils, Geotechnical Testing Journal, USA, Vol. 31, Issue 2, 142-148, March 2008.  
2. Abedi-Koupai, J., S.S. Eslamian, M. J. Amiri 2009. Comparision of Artificial Neural Network and Physically Based Models for Estimating of Reference Evapotranspiration in Greenhouse. Australian Journal of Environmental Sciences. 3(3): 2528-2335.  
3. Abedi-Koupai, J., B. Mostafazadeh, M. Afyuni, and M. R. Bagheri, 2006. Effect of treated wastewater on soil chemical and physical properties in an arid region. Journal of Plant, Soil and Environment, 52(8): 335-344.  
4. Abedi-Koupai, J., S. S. Eslamian and. J. Asadkazemi, 2008. Enhancing the Available Water Content in Unsaturated Soil Zone using Hydrogel, to Improve Plant Growth Indices, Ecohyrology & Hydrobiology, Poland, 8(1): 3-1 .  
5. Akhavan, S., J. Abedi-Koupai, S.F. Mousavi, M. Afyuni, S.S. Eslamian and K. Abbaspour 2010. Application of SWAT Model to Investigate Nitrate Leaching in Hamadan-Bahar Watershed. Agriculture, Echosystem and Environment. 139: 675-688.  
6. Malekian R., J. Abedi-Koupai and S.S. Eslamian, 2010. Influences of clinoptilolite and surfactant modified clinoptilolite zeolite on nitrate leaching and plant growth. J. Hazardous Materials. 185: 970-976.  
7. Akhavan, S., S.F. Mousavi, J. Abedi-Koupai, and K. Abbaspour 2010. Conditioning DRASTIC model to simulate nitrate pollution. Case Study: Hamadan-BaharPlain. Environmental Earth Science. 63: 1155-1167.  
8. Abedi-Koupai, J. Varshosaz, M. Mesforoosh and A.H. and Khoshgoftarmanesh. 2010. Controlled release of fertilizer microcapsules using Ethylene vinyl Acetate polymer to enhace miccronutrient and water use efficiency. Journal of Plant Nutrition. USA.  
9. Eslamian S.S., M.J. Khordadi and J. Abedi-Koupai . 2011. Effects of variations in climate parameters on evapotranspiration in the arid and semi-arid regions. Global and Planetary Change. 78: 184-194.  
10. Malekian R. , J. Abedi-Koupai and S.S. Eslamian, S.S. Mousavi, K.C. Abbaspour and M. Afyuni, 2010. Ion-exchange process for ammonium removal and release using natural Iranian zeolite. Applied Clay Science. 51: 323-329.  
11. Eslamian S.S., M.J. Khordadi and J. Abedi-Koupai . 2011. Aplication of L-moments for regional frequency analysis of monthly drought indices. Journal of Hydrologic Engineering. 1: 88-104.  
12. Abedi- Koupai, J., F. Sohrab and G.W. Swarbrick, 2008. Evaluation of hydrogel application on soil water retention characteristicd. Journal of Plant Nutrition, 317-331, Taylor and Francis Pub, USA.  
13. Abedi- Koupai, J., J. Asadkazemi, 2006. The effects of a hydrophilic polymer on the field performance of Cupressus arizonica under reduced irrigation regims Iranian Polymer Journal (15)9:715-725.  
14. Abedi-Koupai, J, M. Vossoughi-Shavari, S. Yaghmaei, M. Borghei and R. Ezzat, 2007. Effects of Microbial Population on Phytoremediation of Petroleum Contaminated Soils Using Tall Fescue, International Journal of Agriculture and Biology, 9(2): 242-246  
15. Heidarpor, M., B. Mostafazadeh-fard, Abedi-Koupai, J. and R., 2007. Effect of treated wastewater on soil chemical properties using subsurface and surface irrigation methods, Agriculture Water Management, Vol. 90, Issue 1-2: 87-94.  
16. Ezzatian, R., M. Vossoughi-Shavari, S. Yaghmaei, M.Borghei and. Abedi-Koupai, J., 2008- Effects Of Of C/N Ratio on the phytoremediation of crude oil contaminated soil by Puccinellia distance, Petroleum Science and Technoloy.  
17. Ezzatian, R., M. Vossoughi-Shavari, S. Yaghmaei, M.Borghei and. Abedi-Koupai, J,, 2008. Effects of Puccinellia distance on modification of C/N ratio and microbial activities in crude oil contaminated soil, Iranian J. of Chem & Chem. Eng, Vol. 27. No.3, 77-85.  
18. Eslamian, S.S., J. Abedi-Koupai, M. J. Amiri and S.A. Gohari 2009. Estimation of daily reference evapotranspiration using support vector machines and artificial networks in greenhouse. Research Journal of Environmental Sciences, 3(4): 439-447.  
19. Ebrahimzadeh, M.A., M. J. Amiri, S.S. Eslamian, S.S., J. Abedi-Koupai, and M. Khozaei 2009. The effects of different water qualities and irrigation methods on soil chemical properties. Research Journal of Environmental Sciences, 3(4): 497-503.  
20. Ghasemi Ghehsareh M., M. Khosh-Khui and J. Abedi-Koupai. 2010. Effects of Superabsorbent Polymer on Water Requierment and Growth Indices of Ficus benjamina L. ‘Starlight’. Journal of Plant Nutrition, Taylor and Francis Pub, USA, 33: 785-795.  
21. Koupai, 2011. Application of sugarcane straw anion exchange for nitrate removal, Nature and Science,9(7): 158-168.  
22. Farasati, M., H. Moazed, S. Boroomand nasab, N. Jasfarzadeh, J. Abedi-Koupai, 2011. Application of sugarcane straw anion exchange for nitrate removal, Nature and Science,9(7): 158-168.  
23. Farasati, M., H. Moazed, S. Boroomand nasab, N. Jasfarzadeh, J. Abedi-Koupai, 2011. A kinetic study of nitrate adsorption onto modified phragmites and sugarcane straw, World Applied Science Journal, 1-10.  
24. Shoshtarian, A., J. Abedi-Koupai and A. Tehranifar. 2011.Evaluation the application of superabsorbent polymers in green-spacee of arid and semi-arid regions with emphesis on Iran. Journal of Biodiversity and Ecological Sciences.1(4): 259-269.  
25. Haghiabi, A., J. Abedi-Koupai, M. Heidarpour and J. Mohammadzadeh-Habili , 2011. A new method foe estimating the parameters of Kostiakov and modified Kostiakov infiltration equations, World Applied Science Journal, 15 (1): 129-135.

Published papers in International Conferences:

1. - Swarbrick, G. W. and Abedi- Koupai, J. 1994. “Influence of cyclic drying upon the hydraulic properties of landfill covers”, Water Down Under, 25th Congress of International Association of Hydrologists, Adelaide, Australia, Vol. 3, pp. 495- 498.  
2. Abedi-Koupai, J., Swarbrick, G. W. and Fell, R., 1995. Prediction of unsaturated hydraulic conductivity using micro-lysimeter. Proceedings of First International Conference on Unsaturated Soils. UNSAT, 95. Paris, France. 6-8 Sept. 1995. pp. 513-518.  
3. Swarbrick, G. W. and Abedi-Koupai, J. 1997. “Physical and numerical modeling of infiltration through a landfill cover”, Engineering Geology and the Environment, Proceeding International Symposium on Engineering Geology and the Environment, Athens, Greece, 23-27 June 1997, pp. 2203- 2208.  
4. 45-Abedi- Koupai, J. M. Afyuni, B. Mostafazadeh and M. R. Bagheri, 2001. “Influence of treated wastewater and irrigation systems on soil physical properties in Isfahan province”. 52nd IEC Meeting & 1st Asian Regional Conference of the International Commission on Irrigation and Drainage (ICID), Proceeding of International workshop on wastewater reuse management R. Ragab, G. Pearce, J. C. Kim, S. Nairizi, and A. Hamdy (Eds.) pp. 165- 173. Seoul, Korea, Sept, 2001.  
5. Abedi- Koupai, J., and M. R. Bagheri. 2002. “Agricultural practices and Nitrate contamination of Groundwater in Central Iran”, Proceeding of 3th International Iran and Russia Conference. Agriculture and Natural Resources. pp. 242- 243 Sept. 18- 20, 2002, Moscow, Russia.  
6. Abedi-Koupai, J. and Afyuni, M. 2003. Phytoremediation of Lead– Contaminated Soils in central Iran. Proceedings of International Conference on Soil and Groundwater Contamination and Clean up in Arid Countries. 20-23 Jan. 2003. Sultan Qaboos University, Oman, pp.27-28.  
7. Afyuni, M., Schulin, R. and Abedi-Koupai, J. Effect of sewage Sludge on Heavy Metal and Nitrate Transport in a calcareous soil. Proceedings of International Conference on Soil and Groundwater Contamination and Clean up in Arid Countries. 20-23 Jan. 2003. Sultan Qaboos University, Oman, pp.4.  
8. Eslamian, S.S., Tabatabaei, S.H., Abedi-Koupai, J. and Nazari, R. 2003. A Mathematical and Management Model of Groundwater with Emphasis on Artificial Recharge for Damaneh Plain, Isfahan Province of Iran. The Second International Conference on Salt Water Intrusion and Coastal Aquifers- Monitoring, Modeling and Management. March 30-April 2, 2003. Merida, Yucatan, Mexico.  
9. Abedi- Koupai, J., 2003. Potential Uses of Phytoremediation Technology for Nickel-Polluted Soils. 6th International Conference on Civil Engineering. May 5-7. 2003. Isfahan University of Technology. Iran, pp. 199 - 205.  
10. Abedi-Koupai, j and Bakhtiarifar. A. 2003. Investigation the effect of treated wastewater on hydraulic properties of emitters in trickle irrigation system. International executive council & 20th European conference. International Commission on Irrigation and Drainage (ICID) 14-19 Sept. 2003. Mountpellier- France.  
11. Abedi-Koupai, J. and Bagheri. M.R. 2003. Irrigation with treated wastewater as an effective reclamation method for sodic and saline soils in central Iran. 7th International Conference for Development of Drylands, ICDD. 14-17 Sept. 2003. Tehran- Iran.  
12. Abedi- Koupai, J. and Sohrab, F. 2004. Effect of Super Absorbent Polymers on Soil Hydraulic Properties. 8th National Conference on Hydraulics in Engineering. May 13-16. 2004. Gold Coast, Australia.  
13. Abedi- Koupai, J. and M.A. O. Zanjani, 2005. Effect of Water Chemical Parameters on Yellowing of the Leaves in Plane Trees of Isfahan. International salinity Forum, 25-27 April 2005, Riverside, California, USA.  
14. Abedi- Koupai, J., H. Mehdizadeh, 2005. A Model to Estimate Relationship Between Osmotic Potential and Electric Conductivity in Unsaturated Soil. International salinity Forum, 25-27 April 2005, Riverside, California, USA.  
15. Abedi- Koupai, J. and O. Zanjani, 2005. Soil and Water Quality Effects on Platanus Orientalis Chlorosis of Isfahan. International Conference on Human Impacts on Soil Quality, 12-16 Sept 2005, Isfahan University of Technology, Isfahan, Iran.  
16. Abedi- Koupai, J. and H. Mehdizadeh, 2005 A Physically-Based Model for Estimating Osmotic Potential of a Clay Soil. International Conference on Human Impacts on Soil Quality, 12-16 Sept 2005, Isfahan University of Technology, Isfahan, Iran.  
17. Abedi-Koupai J. and Charkhabi A. H. 2005. Phytoremediation of Petroleum Contaminated Soils. Aquifer Vulnerability and Risk, 2nd International Workshop and 4th congress on the Protection and management of Groundwater. Parma, Italy, 21-23 Sept. 2005.  
18. Abedi-Koupai, J. and Nasirzadeh, H. R. 2005. Evaluation of the Potential 'poiiutant of Isfahan Landfill upon Groundwater Resources. Aquifer Vulnerability and Risk, 2nd International Workshop and 4th congress on the Protection and management of Groundwater. Parma, Italy, 21-23 Sept. 2005.  
19. Abedi-Koupai, J., Nasirzadeh, H.R. 2006. Change of hydraulic conductivity of Landfill base due to leachate-soil interactions.7th International Conference on Civil Engineering. May 8-10. 2006. -Tarbiat Modares University. Iran, pp. 199 - 205.  
20. Abedi.Koupai, J., J. Varshosaz, A. Khoshgoftarmanesh and M. Mesforoosh, 2007. Enhancing water and nutrient use efficiency using mico and nano technologies, International Conference on Water and Flood Management, Dhahka, Bangladesh, 197-206.  
21. Abedi.Koupai, J. and Saeid Abedi.Koupai, Use of qanat water for irrigation of inside home landscape in Kouhpayeh region in central Iran, The 4th Asian Regional Conference & The 10th International Seminar on Paticipatory Irrigation Management & International History Seminar on Irrigation & Drainage , Tehran, 323-330.  
22. Abedi.Koupai, J. 2006. Irrigation of Some Ornamental Plants Using Treated Industrial Wastewater. International Scientific Conference: The Future of Drylands. 19-21 June 2006. Tunis.  
23. Abedi.Koupai, J.. J. Asad-Kazemi. Water Use Efficiency in Landscape Using Hydrogel. International Scientific Conference: The Future of Drylands. 19-21 June 2006. Tunis.  
24. Abedi Koupai, J. -.S.S.. Eslamian, M. Salehi, J. Khajehali. of Water Stress on Population Changes of Emp on Cowpea. 2006. VIIIth European Congress of Entomology. 17-22 Sept. 2006. Turkey.  
25. Soleimani, R., J. Abedi Koupai-. J. Hatami, J., 2006. f Water Stress on Population Changes of Thrips tabaci Lind on Corn. VIIIth European Congress of Entomology. 17-22 Sept. 2006. Turkey.  
26.

27. Sohrab, F. and Abedi- Koupai, J. 2008. Evaluating the Application of Natural Mineral Water Absorbents on Soil Hydraulic Properties .Iran International Zeolite Conference (IIZC'08). April 29-May 1. Imirkabir University of Technology. Tehran. IIZC-08-452.  
28. Abedi-Koupai, J., J. Asadkazemi, S. Abedi and F. salami. 2008. Enhancement of the number of days to the onset of PWP in soils amended with Zeolite. Iran International Zeolite Conference (IIZC'08). April 29- May 1. ََAmirkabir University of Technology. Tehran. IIZC-08-364.  
29. Abedi-Koupai, J., J. Varshosaz, and M. Mesforoosh. 2008. Controlled release of microcapsule fertilizer using ethylene vinyl acetate polymer. XVIth International Conference on Bioencapsulation, Sept 4-6, 2008. Dublin, Ireland.  
30. Mousavi, S.F., Abedi-Koupai, J., K. Abbaspour and S. Akhavan. 2008. Vulnerability of nitrate pollution from agricultural sources for Hamadan- Bahar aquifer using DRASTIC and SWAT models. 5th SWAT International Conference. October 15-Beiging, China.  
31. Abedi-Koupai, J. and E. Mohri Esfahani. 2008. Desalination of Irrigation Water Using Plant Residues Nano-Particles. Singapore International Water Week, 23-27 June 2008.  
32. Abedi-Koupai, J. S. S. Eslamian, A.R. Gohari and R. Khodadadi. 2010. The Mechanical Properties of Concrete Containing Nanoparticles of Phoenix dactilifera Leaf. Proceedings of the 3rd Conference on Nanostructures (NS2010), March 10-12, 2010, Kish Island, I.R. Iran, 706-709.  
33. Malekian, R., J. Abedi-Koupai and S. S. Eslamian,. 2010. The effect of ionic strength on the ammonium adsorption and desorption by Semnan clinoptilolite zeolite. Proceedings of the 2nd Iran International Zeolite Conference (IIZCS2010), Aprill 29-30, 2010, Tehran. Iran.

34. Amiri, M. J., S.S. Eslamian, S.S., J. Abedi-Koupai, and M. Khozaei 2010. Estimation of daily pan evaporation using the fuzzy regression method in a semi-arid region of Iran. 10th Iranian Conference on Fuzzy Systems, Shahid Beheshti University, July 13-15, 2010. 300-304.  
35. Malekian, R., J. Abedi-Koupai and S. S. Eslamian, 2010. An effective method to reduce groundwater pollution in farmlands. 1st Annual International Conference-Ibb 2010) Environmental Science & Technology). P. 78.Yemen.  
36. Abedi-Koupai, J. M.A. Fathi. 2011. Influence of nanoparticles of RHA on mechanical properties and seepage of concrete canal lining. Proceedings of the 2nd International Conference on Nanotechnology: Fundamentals and Applications. Ottawa, Ontario, Canada, 28-29 July 2011,

37. Eslamian, S.S., J. Abedi-Koupai, S.Y. Hasheminezad and E.Z. Hosseinipour. 2011. A mathematical model for Ni phytoremediation from contaminated soils. Word Environmental and Water Resources Congress 2011: Bearing Knowledge for Sustainbility ASCE 2011. 1772-1781.  
38. Abedi-Koupai, J. E. Mohri-Esfahani. 2012. Desalination of water. Proceedings of the 4nd International Conference on Nanotstructures (ICNS4), 12-14 March 2012, Kish Island I.R. Iran.

Job experience:

- Designer Engineer in Irrigation and Drainage project in Khosestan Province (1986-1987)  
-  
- Research Assistant in University of New South Wales-Australia (1993-1994)  
-  
- Lecturer in Isfahan University of Technology (1996- so far)  
-  
- Director of Pasture and Watershed Management Dept. in faculty of Natural Resources, Isfahan University of Technology (2000-2001)

- Deputy of Student Affairs in faculty of Natural Resources, Isfahan University of Technology (1997 -2002)

- Member of Department of Water Engineering in College of Agriculture, Isfahan University of Technology. (1996- so far)

- Member of Department of Environmental Engineering in Faculty of Natural Resources, Isfahan University Technology. (1996- 2006)

- Member of Pasture and Watershed Management Dept. in Faculty of Natural Resources, Isfahan University Technology. (2000- 2006)

- Head of postgraduate studies in Faculty of Natural Resources. (2002- 2006)

- Deputy of Administration and Finance in College of Agriculture, Isfahan University of Technology. (2002- 2008)

- List of National projects as manager:

- Application of rice husk in concrete irrigation canal lining.  
- Influence of Isfahan Landfill Upon groundwater Pollution.  
- Mathematical model for estimating osmotic potential of soils in Isfahan