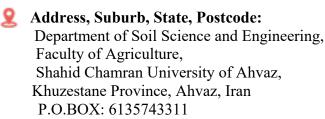


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- PROFESSIONAL PROFILE:
 - 2015 to present, Associate Professor, Soil Science Dept., Shahid Chamran University of Ahvaz.
 - 2010 to 2015, Assistance Professor, Soil Science Dept., Shahid Chamran University of Ahvaz.
 - Oct. 2007-Aug. 2009, Visiting researcher, Forschungszentrum Jülich GmbH, Wilhelm-Johnen Str., 52428 Jülich, Germany.
 - 2010 to present, Main Supervisor of 21 M.Sc. students, Co-supervisor of 4

M.Sc. students, and advisor of 7 M.Sc. students.

• 2015-2020 Main supervisor of 3 Ph.D students and Co-supervisor of 1 student.

- 2013-2014 Member of the research council of Environmental Technologies Research Center, Ahvaz Jundishapur University of Medical Sciences, Iran
- 2010 to present, Coordinator of several research projects
- 2019 Member of Scientific Committee at "The First National Conference on Agricultural and Environmental Sciences, Ramin Agriculture and Natural Resources University", Iran, February 30, 2019.
- 2018 Member of Scientific Committee at "The 5th National Conference on Irrigation and Drainage Networks Management and 3rd National Congress on Iran's Irrigation and Drainage", Ahvaz, Iran on March 12-14, 2018.
- 2016 Member of Scientific Committee and Jury Board at "The First International Conference on Dust", Shahid Chamran University of Ahvaz, Iran, on March 2-4, 2016.
- 2014 Member of Scientific Committee at "The 13th Iranian Soil Science Congress", Shahid Chamran University of Ahvaz, Ahvaz, Iran on Jan 28-30, 2014.
- 2012-2017 Member of the Graduate Council of the Faculty of Agriculture at Shahid Chamran University of Ahvaz.

EDUCATION BACKGROUND:

Ph.D: Soil Physics and Conservation (2008), Tarbiat Modares University, Tehran, Iran

Dissertation title:

Bacteria transport and retention in Calcareous soils under saturated and unsaturated conditions.

MSc: Agricultural Engineering- Soil Science (2002), Tarbiat Modares University, Tehran, Iran

Thesis title:

Derivation of Hydraulic Functions of Gypsiferous Soils Using Pedo-Transfer Functions

BS: Agricultural Engineering- Soil Science (2000), Shahid Chamran University of Ahvaz, Iran

TEACHING AND TRAINING EXPERIENCE:

Undergraduate:	Soil Physics, Soil and Water Conservation, Soil water and plant relationships, Soil Management in Sustainable Agriculture, General Soil Science, Watershed Management, Biophysics, Soil Erosion and Conservation, Proficiency, Internship, Project, and Agricultural Operation.
Graduate:	Advanced Soil Physics, Soil Mechanics, Hydrology, Application of Mathematical Models in Soil Physics and Conservation, Sustainable Soil Management, Hydrology, Research Methodology, Agricultural Soil Mechanics, Seminar.

HONOURS AND AWARDS:

- 7th Rank, Nationwide M.Sc. entrance exam in Soil Science of Iranian Universities (Obtaining rank 7 among 625 participants in Master of Science Degree Program examination (Agricultural Engineering- Majoring in Soil Science) held in 2000.
- 3th Rank, Nationwide PhD entrance exam in Soil Science of Tarbiat Modares University, Iran.
- PhD scholarship award by Ministry of Science, Research and Technology (Iran).

INTERESTS AND RESEACH FIELDS:

- Land degradation and sustainable land use for productive agriculture,
- Soil and water management in arid and semiarid regions,
- Soil erosion by water and wind: predictive factors, processes, and biological alternatives for effective conservation,
- Watershed-based water management and conservation under both rain-fed and irrigated agriculture,
- Numerical Modeling of Water Flow and Solute Transport in Soil,
- Microorganism Fate and Transport in Porous Media,
- Transport Processes with Various Equilibrium and Non-Equilibrium Solutes in Variably, Saturated Porous Media,
- Fate and Transport of Nanoparticles in Subsurface Environment,
- Soil Digital Mapping,
- Modeling coupled water, salt, and heat transport in soil.

RESARCH ACTIVITIES:

PUBLICATIONS:

Papers in international peer-review journals:

 1. Parsaie, F., Farrokhian Firouzi, A., Mousavi, S.R., Rahmani, A., Sedri, M.S., Homaee, M. 2021. Large scale digital mapping of soil surface total nitrogen using machine learning models and associated uncertainty map. Environmental Monitoring and Assessment. 193(4); 1-15. (Impact factor=2.273, Q2).

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• 2. Yusefi, A., **Farrokhian Firouzi, A.**, Aminzadeh, M. B. 2020. The effects of shallow saline groundwater on evaporation, soil moisture, and temperature distribution in the presence of straw mulch. Hydrology Research, 51 (4): 720-738. (IF=2.012)

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• 3. Ramazanpour Esfahani, A., **Farrokhian Firouzi, A.**, Sayyad, Gh., Kiasat. 2018. Highly efficient removal of cadmium from aqueous solution using polymer-stabilized zerovalent iron nanoparticles equilibrium, kinetic and thermodynamic studies. Environmental Engineering and Management Journal. 17(8): 1841-1854. (IF=1.186)

http://www.eemj.icpm.tuiasi.ro/issues/vol17/vol17no8.htm

• 4. Koohiyan Afzal, M.T., **Farrokhian Firouzi, A.**, Taghavi, M. 2017. Synthesis of bare and four different polymer-stabilized zero-valent nanoparticles and their efficiency on hexavalent chromium removal from aqueous solutions. Journal of Water and Environmental Nanotechnology, 2(4): 278-289.

http://www.jwent.net/article_28434.html

• 5. Ramazanpour Esfahani, A., **Farrokhian Firouzi A.** 2016. Synthesis and application of zero-valent iron nanoparticles for hexavalent chromium removal in saturated sand columns: experimental and modeling studies. Desalination and Water Treatment, 57(33): 15424-15434. (IF=1.631)

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• 6. Farhadi, A., Enayatizamir, N., **Farrokhian Firouzi A.**, Howeizeh, H. 2016. Effect of arbuscular mycorrhize fungi inoculation on blue panic grass (*Panicum antidotale*) growth under water- deficit condition. Crop Research, 51(1-3): 78-85. (IF=1.2)

https://www.indianjournals.com/ijor.aspx?target=ijor:cr1&volume=51&issue=1to3&ar ticle=013

• 7. Farrokhian Firouzi., A., Homaee, M., Klumpp, E., Kasteel, R., Tappe, W. 2015. Bacteria Transport and Retention in intact calcareous soil columns under saturated Flow conditions. Journal of Hydrology and Hydromechanics, 63 (2): 102–109. (IF=2.011)

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• 8. Babaei, A. A., Bahrami, M., Farrokhian Firouzi, A., Ramazanpour, A. E. Alidokht, L.

2015. Adsorption of cadmium onto modified nanosized magnetite: kinetic modeling, isotherm studies, and process optimization. Desalination and Water Treatment. 56(12): 3380-3392. (IF=1.631)

https://www.tandfonline.com/doi/abs/10.1080/19443994.2014.972986

• 9. Farrokhian Firouzi, A., Babaei, A.A., Hosseini, M., Heidarzadeh, F. 2015. Adsorption of copper (II) by modified magnetite nanoparticles: adsorption efficiency, equilibrium, kinetic and reusability. Fresenius Environmental Bulletin, 24 (9): 2815-2823. (IF=0.553)

https://www.prt-parlar.de/download/

• 10. Ramazanpour Esfahani, A., **Farrokhian Firouzi, A.**, Sayyad, Gh., Kiasat, A., Alidokht, L. and A.R. Khataee. 2014. Pb(II) removal from aqueous solution by polyacrylic acid stabilized zero- valent iron nanoparticles: process optimization using response surface methodology. Research on Chemical Intermediates, 40: 431–445. (IF=2.262, Q2)

https://link.springer.com/article/10.1007/s11164-012-0975-1

• 11. Ramazanpour Esfahani, A., **Farrokhian Firouzi, A.**, Sayyad, Gh., and A.R. Kiasat. 2014. Transport and retention of polymer-stabilized zero-valent iron 3 nanoparticles in saturated porous media: Effects of initial particle 4 concentration and ionic strength. Journal of Industrial and Engineering Chemistry, 20 (5): 2671-2679. (IF=5.278, Q1)

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• 12. Ramazanpour Esfahani, A., **Farrokhian Firouzi A.**, Sayyad, G.A., and A., Kiasat. 2013. Lead removal from aqueous solutions using polyacrylicacid-stabized zero-valent nanoparticle. Research Journal of Environmental and Earth Science, 5(9): 458-555.

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- 13. Ramazanpour Esfahani, A., **Farrokhian Firouzi A.**, Sayyad, G.A., and A., Kiasat. 2013. Isotherm Study of Cadmium Adsorption onto Stabilized-Zerovalent Iron Nanoparticles. International Journal of Agronomy and Plant Production. 4 (12), 3444- 3454. (IF=0.47)
- 14. Ahmadi, M., Alipour, Z. T. and **Farrokhian Firuzi, A.** 2013. Investigation of the Possibility of Phytoremediating a Soil Contaminated with Anthracene. Journal of Chemical Health Risks, 3(3): 69-76.

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• 15. Bahrami, M., Boroomandnasab, S., Kashkuli, H. A., **Farrokhian Firoozi, A.**, and A. A. Babaei. 2012. Removal of Cd(II) From Aqueous Solution Using Modified Fe₃O₄ Nanoparticles. Report and Opinion. 4(5): 31-40. (IF=2.71)

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• 16. Homaee, M. and Farrokhian Firouzi, A. 2008. Deriving point and parametric pedotransfer functions of some gypsiferous soils. Australian Journal of Soil Research, 46: 219-227. (IF=1.61)

https://www.publish.csiro.au/sr/sr07161

Papers in national journals (in Persian with English abstract)

• 17. Kouhiyan Afzal, M.T., **Farrokhian Firouzi, A.**, Taghavi, M. 2021. Simulation transport of biodegradable and green zerovalent iron nanoparticles in sandy soil under saturated steady state flow conditions. J. of Water and Soil Conservation, 27(5): 47-67.

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• 18. Shafiefar, S. Farrokhian Firouzi, A., Khademalrasoul, A. 2021. Estimation of electrical conductivity of saline-sodic soils during leaching process using HYDRUS-1D. Water and Soil Science. (Accepted Paper).

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• 19.Yusefi, A., Farrokhian Firouzi, A., Aminzadeh, M. B. 2020. Effect of Mulch on Soil Moisture, Temperature and Heat Flux Variation in the Presence of Shallow Groundwater. Iranian Journal of Soil and Water Research, 50(9): 2213-2225. (IF=0.139)

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- 21. Nooralivand, F., Farrokhian Firouzi, A. 2020. Investigation of Modified Biochar, Nanoclay and Polyvinyl Acetate on Soil Stabilization and Wind Erosion Control of Sandy and Loamy Sand Soils. Iranian Journal of Soil and Water Research, 51(4): 923-935. (IF=0.139) https://ijswr.ut.ac.ir/article_74516.html?lang=en
- 22. Nooralivand, F., **Farrokhian Firouzi, A.** 2020. Investigation the Effect of Polyvinyl Acetate Polymer, Acid Biochar and Wheat Straw Cellulose Hydrogel on Water Retention Capacity in a Sandy Soil. Applied Soil Research, 8(3): 144-159. (IF=0.029) http://asr.urmia.ac.ir/article_120958_en.html

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- 24. Zadmehr, H., Farrokhian Firouzi, A. 2020. Estimating Soil Temperature from Metrological Data Using Extreme Learning Machine, Artificial Neural Network and Multiple Linear Regression Models. Iranian Journal of Soil and Water Research, 51(4): 895-906. (IF=0.139)

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• 25. Hosseinalipour, B., Rahnama, A., **Farrokhian Firouzi, A.** 2020. Effect of drought stress on wheat root growth and architecture at vegetative growth stage. Iranian Journal of Field Crop Science. 51(1): 63-75.

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- 27. Chaternour, M., Landi, A., Farrokhian Firouzi, A., Noroozi, A., Bahrami, H.A. 2020. Application of Hyperspectral Images in Quantification of Soil Gypsum in Center Areas of Khuzestan Province Prone to Dust Generation. Applied Soil Research, 8(3): 1-13. (IF=0.029) http://asr.urmia.ac.ir/article 120963 en.html
- 28. Shahpouri Arani, M., **Farrokhian Firouzi, A.**, Enayatizamir, N., Rahnama, A. 2020. Effect of Soil Compaction and Organic Matter Application on some Soil Biological Characteristic under Wheat Cultivation in Greenhouse Conditions. Iranian Journal of Soil Research, 33(4): 485-496. (IF=0.171)

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• 29. Chatrenour, M., Landi, A., **Farrokhian Firouzi, A.**, Noroozi, A., Bahrami, H.A. 2019.Investigating soil Properties in susceptible areas of dust production in Khuzestan province by visible and wave-near infrared spectroscopy. Watershed Engineering and Management, 12(3): 670-685.

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• 30. Chatrenour, M., Landi, A., **Farrokhian Firouzi, A.**, Noroozi, A., Bahrami, H.A. 2019. Spectral behavior modeling of soil texture over dust center of Khuzestan Province using hyperspectral images and Random Forest (RF) model. Journal of Advanced Applied Geology. 9(4): 466-479.

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- 31. Lohrasbi, H., Khademalrasoul, A., Farrokhian Firouzi, A. 2019. Effects of Biochar and Zeoplant on Physical and Mechanical Properties of Erodible Soils (Case Study: Bostan). Journal of Water and Soil, 33(5): 723-737. (IF=0.176) https://jsw.um.ac.ir/article 38764.html?lang=en
- 32. Chaternour, M., Landi, A., **Farrokhian Firouzi, A.**, Noroozi, A., Bahrami, H.A. 2019. Modeling Soil Salinity in Khuzestan Lands Susceptible for Dust Production Using Visible-Near Infrared Spectroscopic Method. Iranian Journal of Soil and Water Research, 50(8): 1951-1962. (IF=0.139)

https://ijswr.ut.ac.ir/article_70964.html

• 33. Hosseini Chamani, F., **Farrokhian Firouzi, A.**, Amerikhah, H. 2019. Pedotransfer Function (PTF) for Estimation Soil moisture using NDVI, land surface temperature (LST) and normalized moisture (NDMI) indices. Journal of Water and Soil Conservation. 26(4): 239-254. (IF=0.149)

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- 34. Kouhiyan Afzal, M.T., **Farrokhian Firouzi, A.**, Taghavi, M. 2019. Transport Study and Efficiency of Stabilized Nanoscale Zerovalent Iron Particles for Hexavalent Chromium Removal from Sand Column. Journal of Water and Soil, 31(1): 147-161. (IF=0.176) https://jsw.um.ac.ir/article_38723.html?lang=en
- 35. Sadeghian, A., Sayyad, Gh.A., Farrokhian Firouzi, A., Norouzi Masir, M. 2019. Effect of Different Agronomic Management on Some Physical Indicators of Soil Quality. Journal of Soil and Water, 33(2): 275-288. (IF=0.176) https://jsw.um.ac.ir/article 38732.html?lang=en
- 36. Kouhiyan Afzal, M.T., Farrokhian Firouzi, A., Taghavi Zahedkolaei, M. 2019. Nitrate Removal from Aqueous Solutions using Green and Biodegradable Zerovalent Iron Nanoparticles. Journal of Environmental Health Engineering, 6(3): 311-325. https://jehe.abzums.ac.ir/article-1-646-en.html

 37. Farrokhian Firouzi, A., Amiri, M.J., Hamidifar, H., Bahrami, M. 2018. Breakthrough Curves of SDS Stabilized Magnetite Nanoparticles in Two Coarse Textured Soils. Iranian Journal of Soil Research, 31(4): 573-587. (IF=0.171) https://srjournal.areeo.ac.ir/article 115897.html?lang=en

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• 39. Azadifar, A., Moazed, H., SoltaniMohammadi, A., Farrokhian Firouzi, A. 2017. The Effect of Soil Texture and Transmission Distance on The Nitrate Dispersivity in Sandy Soil Using Brigham, Fried-Combernous Models and CXTFIT code. Irrigation Sciences and Engineering, 39: 147-157.

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• 40. Azadifar, A., Moazed, H., SoltaniMohammadi, A., Farrokhian Firouzi, A. 2017. The Study of Nitrate Dispersivity in Sandy Soil Using HYDRUS-1D Model. Iranian Journal of Soil and Water Research, 47(4): 765-774. (IF=0.139)

https://ijswr.ut.ac.ir/article_59983_en.html

• 41. Arzaghi F., **Farrokhian Firouzi, A.**, Enayatizamir, N., Khalilimoghaddam, B. 2017. Effect of Polyacrylamide Polymer on Wind Erosion Control of Sandy Soil in Azadegan Plain. Journal of Water and Soil, 31(4): 1070-1082.

https://jsw.um.ac.ir/article_38575.html?lang=en

• 42. Farrokhian Firouzi, A., Amiri, M. J., Hamidifar, H., Bahrami, M. 2017. Cadmium Immobilization in Soil using Sodium Dodecyl Sulfate Stabilized Magnetite Nanoparticles. Journal of Water and Soil, 31(1): 241-253.

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• 43. Farhadi, A., Enayati Zamir, N., **Farrokhian Firouzi A.**, Howeizeh, H. 2017. The Effect of Arbuscular Mycorrhizal Fungi and Drought Stress on Glomalin Content and Some Physical and Mechanical properties of Soil under Blue Panic Grass Cultivation (*Panicum antidotal*). J. of Water and Soil Conservation, 23(5): 267-280.

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• 44. Farrokhian Firouzi, A., Amiri, M.J., Hamidifar, H., Bahrami M. 2016. Transport Modeling of Modified Magnetite Nanoparticles with Sodium Dodecyl Sulfate in a Saturated

Sandy Soil. Journal of Water and Soil, 30(3): 842-856.

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• 45. Moghadam, E., Mahmoodi, Sourestani, M., Ramazani, Z., **Farrokhian Firouzi, A.**, Eskandari, F. 2016. Effects of iron foliar application on the number and size of glandular trichomes and essential oil content and composition of holy basil (*Ocimum sanctum L.*) at first and second harvests. Iranian Journal of Medicinal and Aromatic Plants, 32, (1): 174-188.

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• 46. Behnam, H., **Farrokhian Firouzi, A.**, Moezzi, A.A. 2016. Effect of sugarcane bagasse biochar and compost on some soil mechanical properties. J. of Water and Soil Conservation, 23(4): 235-250.

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• 47. Nooralivand, F., **Farrokhian Firouzi, A.**, Chorom, M. Kiasat, A. and Babaei, A. A. 2015. Effect of Stabilized Zero-Valent Iron Nanoparticles on Nitrate Removal from Sandy Soil. Journal of water and soil, 29 (4): 1018-1032.

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• 49. Aalipour Shehni, M. S., **Farrokhian Firouzi**, **A.**, Koraie, A. and H. Motamedi. 2015. Effect of plant roots on chloride transport in a soil under saturated condition. Journal of Agricultural engineering. 38(1): 95-107.

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• 51. Moghadam, E., Mahmoodi Sourestani, M., **Farrokhian Firouzi, A.**, Ramazani, Z., Eskandari F. 2015. The effect of foliar application of iron chelate type on morphological traits and essential oil content of holy basil (*Ocimum sanctum L.*). Agriculture Crop Management.

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CONFERENCE PRESENTATIONS:

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RESEARCH PROJECTS:

- The effect of shallow groundwater and mulch on coupled heat, moisture and saline dynamics in different soils texture during evaporation process. (Funded by: Iran National Science Foundation).
- 2. Quantitative Study Effect of Magnetite Nanoparticles on Immobilization, Transport and Bioavailability of Copper in Soil. (Funded by: Environmental Technologies Research Center).
- 3. Study the Effect of carboxymethyl cellulose stabilized Iron Nanoparticles on Transport and Reduction of Nitrate in Soil. (Funded by: Environmental Technologies Research Center).

- 4. Study Effect of Magnetite Nanoparticles on Removal of Cadmium from Aqueous Solution and Its transport in Soil. (Funded by: Environmental Technologies Research Center).
- 5. The Feasibility of Using the Some of Chemical, Mineral and Organic Mulches on Wind Erosion Control. (Funded by: Dust Research Center, Shahid Chamran University of Ahvaz).
- Investigating the effect of Soil Bioaugmentation and biostimulation on wind erosion control. (Funded by: Dust Research Center, Shahid Chamran University of Ahvaz).

PROFESSIONAL MEMBERSHIPS:

Soil Science Society of Iran

LANGUAGES:

Persian (native)

English

German (B1)