



Iranian Agricultural Engineering Research Institute (AERI)

Curriculum Vitae (Nader Abbasi)

Personal information

Name: Nader Abbasi
Date of birth: 05/04/1970
Place of birth: Zanjan, Iran
Institute Agricultural Engineering Research Institute
Academic Degree and Rank PhD, Professor
Current Position Deputy for Research and Technology
E-mail: nader_iaeri@yahoo.com
Web site www.aeri.ir



Education

| Year | Degree | Subject | Project/Thesis | Organization |
|---------|--------------------|---|--|------------------------------------|
| 1988-92 | B.Sc. | Irrigation Engineering | | Tabriz University (Iran) |
| 1992-95 | M.Sc. | Irrigation Structures | Soil-Cement Tiles for Lining of Irrigation Canals | Tarbiat Moddares University (Iran) |
| 2001-06 | PhD | Water Structures (Geotechnical Aspects) | Analytical and experimental study on the coefficient of consolidation variations in soft clays | Tehran University (Iran), |
| 2003-04 | Sabbatical program | Geotechnical Engineering | Development a Direct and Mathematical Method for Determination of Coefficient of consolidation in Soft Soils | Exeter University, Exeter, UK |

Research interests:

- Irrigation and drainage Networks
- Irrigation water Management
- Water Conveyance and distribution systems
- Water use efficiency
- Geotechnical aspects of hydraulic structures
- Difficulties soils

Teaching

- Designing of Irrigation Structures
- Soil Mechanic
- Construction Materials
- Concrete Technology
- Geotechnical Aspect of Hydraulic Structures (Msc. Students)
- Embankment Dams(Msc. Students)

Administrative Positions

- Deputy for Research and Technology, Agricultural Engineering Research Institute (2015 –current)
- Head of Irrigation and Drainage Department (2007- 2011)
- Coordinator of the National Strategic Planning for Irrigation and Drainage Networks(2006 -2008)
- Head of Irrigation and Drainage Department (1999- 2001)
- Secretariat General of 1st ,2nd and 3rd seminars on Geotechnical Issues of Irrigation and Drainage Networks

Research Activities

- Determination of water consumption in crop and orchards products
- Determination of olive water consumption in the country
- Application of sulfur concrete for lining of irrigation canals
- Performance Assessment of water Control and Distribution Structures in Varamin Irrigation and Drainage Network

- Assessment of Control and Distribution Structures in Secondary Canals
- Laboratory Assessment of the amount and rate of solubility of gypsiferous soils
- The Effects of Nanoclay on dispersivity and swelling characteristic of Soils
- Performance assessment of irrigation and drainage Networks
- The Effect of Pore Water Salinity on Mechanical Properties of Fine Grained Soils
- Assessment of Sherard Chemical Method for Evaluation of Dispersion Potential of Soils(2008-2009)
- The Effects of Chemical Polymer on Physical and Mechanical Properties of Soils(2009-2010)
- Application of Polyvinyl Acetate Co-Polymer for Soils Stabilization(2009-2010)
- Assessment of the current Empirical Methods for determination of compressibility coefficient of clayey soils and development a new Equation(2007-2009)
- Evaluation and Determination of Soil Settlement Coefficients in Irrigation Structures Bed(2004-2005)
- Preparation and development of an strategic research plan for construction material in Irrigation and drainage Networks(2006-2007)
- Preparation and Development of Strategic Research Planning for Remediation and Optimization of Irrigation and Drainage Networks (2006-2007)
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Supervision /advising of Thesis

1. Application of sulfur concrete for lining of irrigation canals
2. Performance Assessment of water Control and Distribution Structures in Varamin Irrigation and Drainage Network
3. Assessment of Control and Distribution Structures in Secondary Canals
4. Laboratory Assessment of the amount and rate of solubility of gypsiferous soils
5. The Effects of Nanoclay on dispersivity and swelling characteristic of Soils
6. Performance assessment of irrigation and drainage Networks
7. Application of Sewage Sludge Ash and Lime for Improvement of Geotechnical Properties of Clay Soils(**supervisor**, 2014)
8. Assessment the effect of contaminated soil with organic fluids on the properties of soil cement(**supervisor**, 2014)
9. Numerical analysis of slope stability for irrigation canals in different construction and operation conditions(**supervisor**, 2014)
10. Durability of sulfur concrete for lining of irrigation canals(**supervisor**, 2013)
11. Determination of optimum layout of soil-nailed slopes for Different types of soils(**supervisor**, 2013)
12. Technical and Economical evaluation of different lining Materials for large reservoirs (**supervisor**, 2012)
13. Numerical Analysis of the effect of Geogird Arrangement on Slope Stability(**supervisor**, 2011)
14. The influence of freeze-thaw cycles on the compressive strength of clayey soil stabilized with Lime and reinforced with polypropylene fiber (**supervisor**, 2011)

15. The effects of salinity of clayey soils on their shear characteristics (**supervisor**, 2010)
16. Silty-Sand Soils Improvement with Lime-Pozzolan Admixture(**supervisor**, 2010)
17. Effect of pore fluid salinity on consolidation and compaction properties of clayey soils (**supervisor**, 2010)
18. The Effect of Pore Water Salinity on Expansion and Shrinkage behavior of Clayey Soils(supervisor, 2010)
19. Investigation the effect of Pre-Consolidation on Reducing Foundations Settlement on Loose Soils using Finite Elements Model(advisor, 2010)
20. Assessment of chemical methods for Identification of dispersive soils(supervisor, 2009)
21. Consolidation behavior of gypsiferous soils(advisor, 2010)
22. Evaluation of application of Sulfur composites for canal lining(advisor, 2010)
23. Determination of water losses of Kerman plain canals(advisor, 2007)
24. Physical dispersive phenomenon and its evaluation criteria(advisor, 2002)
25. Technical, Operational problems of Ghazvin Irrigation and Drainage net work(advisor, 1999)

Conferences and Workshops

- **Scientific and Executive Director** of 1st conference on Geotechnical Issues of Irrigation and Drainage Networks (2006-2008)
- **Scientific and Executive Director** of 2nd conference on Geotechnical Issues of Irrigation and Drainage Networks(2008-2010)
- **Secretariat General** of 3rd conference on Geotechnical Issues of Irrigation and Drainage Networks(2012)
- **Member of Steering Committee** of the 2nd, 3rd and 4th Conference on Construction Experiences of Hydraulic Structures(2006-2011)

Referee of scientific journals

- Journal of **Geotechnical and Geological Engineering**(springer)
- Journal of **Irrigation and Drainage (ICID)**
- Journal of **Soil and Foundation**
- 7 national scientific journals

International Certificates:

- Field measurement and management of supplemental Irrigation on trials, (August 6, 1999 - September 6, 1999), ICARDA, Syria

- Sabbatical studies on Geotechnical engineering of soft soils ,Exeter University, Exeter, UK (September 2004 –May 2005)
- Study Meeting on monitoring and management of agricultural water quality for green food production in the Asia-Pacific Region (29 Sep – 4 Oct 2008), Taiwan

Membership in national and international scientific societies

- International Society for soil Mechanic and Geotechnical Engineering
- Iranian Geotechnical society
- Iranian Irrigation and Drainage Society

Publications (in journals):

Journal papers:

- 1- Mohammadi, Parvaresh Rizi and Nader Abbasi, 2019. Field measurement and analysis of water losses at the main and tertiary levels of irrigation canals: Varamin Irrigation Scheme, Iran, Journal of Global Ecology and Conservation, <https://doi.org/10.1016/j.gecco.2019.e00646>
- 2- Mohammadi, Parvaresh Rizi and Nader Abbasi, 2018. Perspective of Water Distribution Based on the Performance of Hydraulic Structures in Irrigation Canals: Varamin Large Scale Irrigation Scheme (Iran), Irrigation and Drainage
- 3- Nader Abbasi and Mahdieh, M., 2018, Improvement of Geotechnical Properties of Silty sand Soils Using Natural Pozzolan and Lime, International Journal of Geo-Engineering, vol 9. No4
- 4- Nouroozian K., Abbasi, N., Abedinikoupaei, J. 2017. Use of sewage sludge ash and hydrated lime to improve the engineering properties of clayey soils. Journal Geotechnical and Geological Engineering. Springer
- 5- Nouroozian K., Abbasi, N., Abedinikoupaei, J. 2018. Evaluation of Softening of Clayey Soil Stabilized with Sewage Slug Ash and Lime. Civil Engineering Journal. Vol. 4 , No. 4, pp:743-754, DOI: 10.28991/cej-0309129
- 6- Abbasi, N., Farjad, A. and S. Sepehri (2017) The use of nanoclay particles for stabilization of dispersive clayey soils. J. Geotech Geol Eng. doi.org/10.1007/s10706-017-0330-9
- 7- Aghazadeghan, S., Nader Abbasi and Aghazadeghan, S. 2015. Empirical study of the effect of nono-silica and nonoclay on the occurrence of pipingin sandy soils. Indian Journal of Fundamental and applied Life science. Vol.4 (S4)
- 8- Abbasi, N., Bahramloo, R., Movahedan, M., 2015. Strategic Planning for Remediation and optimization of Irrigation and Drainage Networks: A case study for Iran. Agriculture and Agricultural Science Procedia, Elsevier, No.4, pp:211-221

- 9- Golchifar,N., Nader Abbasi, Golchinfar,N., 2014. The Effects of Freezing and Thawing Cycles on Mechanical Properties of Fine-grained Soils Stabilized with Lime and Reinforced with Polypropylene Fibers.,Canadian Geotechnical Journal, under review
- 10- Nouroozian, K., Abbasi Nader, 2014. “Using the sewage sludge ash and hydrated lime to improve the engineering properties of clay soils”, Journal of Geotechnical and Geological Engineering. Springer, under review
- 11- Nader Abbasi and Mahdieh, M., 2014, Improvement of Geotechnical Properties of Silty sand Soils Using Natural Pozzolan and Lime, Journal of Geotechnical and Geological Engineering. Springer, under review
- 12- Nader Abbasi & Mohammad H. Nazifi, 2013, Assessment and Modification of Sherard Chemical Method for Evaluation of Dispersion Potential of Soils, Journal Geotechnical and Geological Engineering. Springer, Vol. (31) , No. 1, pp:337-349
- 13- Abbasi,N., Movahedan, M. and Keramati, M. 2014. Stabilization of soils using Poly Vinyl Acetate Copolymers. Journal of soil and water conservation, Accepted
- 14- Abbasi, N. and Nazifi, M.H., (2013), “Assessment and modification of Sherard chemical method for evaluation of dispersion potential of soils”, International Journal of Geotechnical and Geological Engineering, Vol.31, No.1, Springer, pp: 337-346.
- 15- Abbasi,N.,Oveisaha, M., and Movahedan, M.2012. Effect of Pore Water Salinity on Compaction and Compressibility Properties of Clayey Soils. Journal of Iranian Agricultural Engineering Research Institute, Vol.13,No.3, pp:67-82
- 16- Abbasi, N. & Nazifi, M.H., (2012), “Assessment and modification of sherard chemical method for evaluation of dispersion potential of soils”, Geotechnical and Geological Engineering. Vol. 31, No. 1, pp: 337-349.
- 17- Abbasi,N., Mahdieh, M. and Davoodi, M.H., 2012. Application of lime and pozzolan for Stabilization of silty sand soils in Irrigation and Drainage Networks. J. Sci. & Technol. Agric. & Natur. Resour., Water and Soil Sci., Vol. 16, No. 62, Winter 2012, Isf. Univ. Technol., Isf., Iran.
- 18- Abbasi, N., (2011), “The role of anions in dispersion potential of clayey soil”, Journal of Agricultural Engineering Research, Vol.12, No.3, IAERI, pp: 15-30.
- 19- Movahedan, M, Abbasi N., keramati M.,2012. Wind erosion control of soils using polymeric materials, Eurasian Journal of Soil Science, Vol.1 Issue (2), Pp: 81-86
- 20- Abbasi N. , A. A. Javadi, R. Bahramloo, 2012. ‘Prediction of Compression Behaviour of Normally Consolidated Fine-Grained Soils, World Applied Science Journal, 18(1), 06-14
- 21- Rahimi H., Abbasi N., Shantia, H., (2011), “Application of geomembrane to control piping of sandy soil under concrete canal lining ,case study for Moghan irrigation network”, Journal of Irrigation and Drainage, ICID, Vol. 60, pp: 330-337.”
- 22- Rahimi H. , Abbasi N.,2008 ‘Failure of Concrete Canal Lining on Fine Sandy Soils (A case study for Saveh Project), Journal of Irrigation and Drainage,ICID, No. 57, pp: 83-92.
- 23- Abbasi N., Rahimi H., Fakher A, Hoorfar A, 2008 ‘Analytical and Experimental Assessment of the Coefficient of Consolidation Variations in Soft Soils, Amirkabir Journal of Science & Technology,Vol.69
- 24- Rahimi H., Abbasi N., 2008 ‘Failure of Concrete canal lining on sandy soils, Journal of Irrigation and Drainage, John Wiley & Sons, Ltd, Vol: 57, pp: 83-92
- 25- Abbasi N., Rahimi H., Javadi A, Fakher A, 2007 ‘Finite difference approach for consolidation with variable compressibility and permeability, Journal of Computers and Geotechnics, volume 34, issue 1, pp: 41-52

- 26- Abbasi N., Rahimi H., Fakher, A. 2006 ‘Determination of compression index of soft clayey soils using their physical properties, Iranian Journal of Agricultural Science and Natural Resource, Vol.14, No.1
- 27- Abbasi N., Rahimi H., Javadi A, Fakher, 2005. Evaluation of compressibility behavior of soft soils using Hydraulic consolidation test, Journal of Iranian Agricultural Engineering Research Institute, Vol.6, No.25
- 28- Rahimi H., Abbasi N., “Evaluation of soil –cement as a lining material for irrigation canals”, Iranian Agricultural Science Journal, 1998, Vol.29, No 3.
- 29- Abbasi N. Bahramloo, R., Mamanposh, A. 2007 , “Technical and operational Issues of Irrigation and Drainage networks”, Iranian Zeiton Journal
- 30- Rahimi H., Abbasi N. “Evaluation of destruction reasons of the main canal of Saveh Network”, Iranian Agricultural Science Journal, 1998, Vol.29, No 3.
- 31- Rahimi H., Davarzani H., Abbasi N. “Physical dispersive phenomenon and its evaluation criteria”, Iranian Agricultural Science Journal, 2004, Vol.35, No 3.
- 32- Rahimi H., Gobadian R., Abbasi N., Comparison of the free swell of clays compacted in two static and dynamic methods, Engineering Journal of Shahid Chamran University, Ahwaz, 2000, Vol.1
- 33- Rahimi, H. , Abbasi N., 1999, Soil-cement tiles for lining of irrigation canals, ICID Journal, Vol.48, No.2
- 34- Rahimi H., Abbasi N. “Technical properties and applications of soil-cement”, Engineering and Technical Journal, IAERI , No.6
- 35- Rahimi H., Bina G., Abbasi N., 2003, “Effect of Rice husk ash on light weight concrete properties”, Engineering Journal of Shahid Chamran University, Ahwaz, , Vol.3
- 36- Rahimi H., Abedi M., Abbasi N. , 2003, “Evaluation of technical properties of Azbest Pipe” Engineering Journal of Shahid Chamran University, Ahwaz, , Vol.3

Publications (in proceedings):

Conference papers:

1. **Abbasi, N.**, Nazifii, M.H., Azarneshan, S., Movahedan, M., 2012. Evaluation and modification of chemical approach for determination of dispersion potential of soils, International Soil Science Congress on Land degradation and Challenges in Sustainable Soil Management, May 15-17, Izmir, Turkey.
2. Movahedan, M., **Abbasi, N.** and Keramati, M. 2012. Wind Erosion Control of Soils Using Polymeric Materials, International Soil Science Congress on Land degradation and Challenges in Sustainable Soil Management, May 15-17, Izmir, Turkey.
3. Movahedan, M., **Abbasi, N.**, Keramati, M. And Bahramloo, Reza. 2012. Effect of polymer application on temporal variation of dry aggregates stability, International Soil Science Congress on Land degradation and Challenges in Sustainable Soil Management, May 15-17, Izmir, Turkey.

4. Abbasi N. 2008. 'Agricultural Water Quality in Iran: status, challenges and opportunities' Study Meeting on monitoring and management of agricultural water quality for green food production in the Asia-Pacific Region, 29Sep-3Oct, 2008, Taipei, Taiwan
5. Abbasi, N., Bahramloo, R., Movahedan, M.,. 2011. 'Technical and Operational Problems of Modern Irrigation and Drainage Networks (A case study for Iranian Projects)', 1st National Agriculture Congress and Exposition on behalf of Ali Numan Kıraç with International Participation, April 27-30, 2011
6. Abbasi, N., Movahedan, M.,. 2011. 'Strategic vision in applied research in Irrigation and Drainage Networks', 2nd Conference on Water Resource Management, May, 18- 19 ,Zanjan, Iran
7. Movahedan, M., Abbasi, N.,. 2011. 'Executive problems of Reservoir lining with Geomembrane', 2nd Conference on Water Resource Management, May, 18- 19 ,Zanjan, Iran
8. Abbasi N. 2010. 'Evaluation of current empirical methods for determination of compression Index', 4th International Conference on Geotechnical Engineering and Soil Mechanics, ICGESM, November 2-3, Tehran, Iran
9. Abbasi N. M.H. Nazifi, 2010. 'The Effect of Pore Water Quality on Dispersion Potential of Clayey Soils', 4th International Conference on Geotechnical Engineering and Soil Mechanics, ICGESM, November 2-3, Tehran, Iran
10. Nazifi,H., Abbasi N. 2010. 'Evaluation of Sherard Method for Determination of Dispersivity potential of Clayey Soils', 2nd national Conference on Geotechnical Issues of Irrigation and Drainage Networks, May 13, Karaj, Iran
11. Movahedan, M., Mamanosh, A., Abbasi, N., 2010. 'Determination of Seepage Losses from Irrigation Canals and Reservoirs Lined With Geomembrane ', 2nd national Conference on Geotechnical Issues of Irrigation and Drainage Networks, May 13, Karaj, Iran
12. Sadeghian, M., Paravesh, A., Abbasi, N., 2010. 'Application of Sulfur Concrete for Lining of Irrigation Canals', 2nd national Conference on Geotechnical Issues of Irrigation and Drainage Networks, May 13, Karaj, Iran
13. Movahedan, M., Abbasi, N., 2010. 'Challenges and Approaches on Development of Irrigation and Drainage Networks in Iran', The First National Seminar on New Participatory Perspectives in Design, construction and Operation of Irrigation and Drainage Networks, January, 27-28, Shiraz, Iran
14. Abbasi, N., Bahramloo, R., Movahedan, M.,. 2009. 'Executive and Research Strategies in Irrigation and Drainage Networks', 2nd Conference on Irrigation and Drainage Networks Management, January, 27-29, Ahwaz, Iran

15. Abbasi, N., Bahramloo, R., Movahedan, M., 2009. 'Current Situations and Problems of Irrigation and Drainage Networks', 2nd Conference on Irrigation and Drainage Networks Management, January, 27-29, Ahwaz, Iran
16. Bahramloo, R., Abbasi, N. Movahedan, M.,. 2009. 'Budgeting and Construction Trends of Irrigation and Drainage Networks Beyond the Iranian Development Programs', 2nd Conference on Irrigation and Drainage Networks Management, January, 27-29, Ahwaz, Iran
17. Bahramloo, R., Abbasi, N., 2007. 'Technical, Operational and Participatory issues of small Irrigation Canals ', The Second Conference on Construction Experiences of Hydraulic Structures, October, 23-25, Tehran, Iran
18. Bahramloo, R. and Abbasi, N., 2007. 'Technical, Operational and Participatory issues of small Irrigation Canals ', The Second Conference on Construction Experiences of Hydraulic Structures, October, 23-25, Tehran, Iran
19. Abbasi, N. 2008. 'Agricultural Water Quality in Iran: status, challenges and opportunities' Study Meeting on monitoring and management of agricultural water quality for green food production in the Asia-Pacific Region, 29Sep-3Oct, 2008, Taipei, Taiwan
20. Abbasi N. , Rahimi, H. 2006. 'Evaluation of Operational and Maintenance Problem of Modern Irrigation Networks (A case study for Ghazvin Project)' International Symposium on Water and Land Management for Sustainable Irrigated Agriculture Adana-TURKEY 4 - 8 April, 2006
21. Rahimi H., Abbasi N., Davarzani H., 2003, Physical dispersive phenomenon and its evaluation criteria ,2003,2nd international conference on advances in soft soil engineering and technology,2-4 July, Putrajaya, Malaysia
22. Rahimi H., Abbasi N, 2001."Destruction reasons of the canal linings (A case study for Saveh Network)", Azerbaijan, Uremia
23. Rahimi H., Kheirandish K., Abbasi N. "Evaluation and comparison of soil-cement Blankets and Blocks for protection of River shores",4th Seminar on River Engineering,1996,Ahwaz
24. Rahimi,H. Abbasi, N. "Soil-cement tiles for lining of irrigation canals" ,1996 ,Morocco