Contact Information

Academic Title: Assistant Professor in Civil and Environmental Engineering at **Shahrood University of Technology**

Address: Faculty of Civil Engineering, Shahrood University of Technology, Shahrood, Iran

E-mail: rvagheei@shahroodut.ac.ir; rvagheei@gmail.com

1- Education

1-1 Doctor of Philosophy

Civil and Environmental Engineering (2004 - 2009)
Tarbiat Modares University, Faculty of Civil and Environmental Engineering, Tehran, Iran
Dissertation Topic: Treatment of Nitrate-Contaminated Drinking Water by Autotrophic Denitrification in a Hydrogenised Biofilter

1-2 Master of Science

Civil and Environmental Engineering (2001 - 2003)
Tarbiat Modares University, Faculty of Civil and Environmental Engineering, Tehran, Iran
Dissertation Topic: Integration of Hydraulic and Quality Model of Water Distribution Networks With GIS

1-3 Bachelor of Science

Civil Engineering (1997- 2001)
Faculty of Water and Environmental Engineering, Shahid Beheshti University, Tehran, Iran

1-4 High School Diploma

Physics and Mathematics (1393-1397)
Nemooneh-Andisheh governmental high school, Qaen, Iran

2- Research Interests

2-1 Applied and innovative technologies in water and wastewater treatment

2-2 GIS and advanced modeling in design and operation of water distribution and sewer networks

2-3 New technologies in landfilling and recycling of solid wastes.

2-4 Air pollution control processes and equipment

2-5 GIS and Remote sensing applications in environmental engineering and urban infrastructures

3- Journal Publications

3-1 ISI International Journals

1- Ramazan Vagheei, Hossein Ganjidoust, Ali-Akbar Azimi, and Bita Ayati, "Nitrate removal from drinking water in a packed-bed bioreactor coupled by a methanol-based electrochemical gas generator", Journal : Environmental Progress & Sustainable Energy, Year : 2010, Vol:29, No:3, pp:278-285, Url : http://dx.doi.org/10.1002/ep.10404.

2- Hamid Roshanravan, Seyed Mehdi Borghei, Amir Hesam Hassani, Ramazan Vagheei, "A novel insight on nitrate removal from high-contaminated ground waters: acid citric as carbon sources and ozone treatment", International Journal of Environmental Analytical Chemistry, Url :https://doi.Org/10.1080/03067319,2020.1789616.

3- Ramazan Vagheei, "Utilization of Sugar Factory Pressmud Waste for Upgrading the Efficiency of Waste Stabilization Ponds", Journal: Clean-Soil, Air, Water, Year : 2021, Url : https://doi.org/10.1002/clen.202000474.

4- Ramazan Vagheei, "Upgrading of waste stabilization ponds using a low-cost small-scale fine bubble diffused aeration system", Journal : water Science & Technology, Year : 2021, Vol:84, No:10-11, pp:3104-3121, doi: 10.2166/WSt.2021.330.

5- Mohammad Reza Ranjbar, Ramezan Vagheei, Hossein Salehih, "Integration of Landsat-8 and Sentinel-1 dataset to extract geological lineaments in complex formations of Tepal mountain area, Shahrood, north Iran" Journal : Advances in Space Research, Year : 2022, doi: https://doi.Org/10.1016/j.asr.2022.08.061.

6- Sama Tajasosi, Ramazan Vagheei, Mehdi Shirzad-Siboni, "Photocatalytic Cement Composite Surface Reactivation Impact on the Degradation Rate of Methylene Blue in a Circulating Flow Fixed Bed Photoreactor", Journal: Desalination and Water Treatment, Year : 2022, Url : http://mc.manuscriptcentral.com/tdwt.

3-2 National Journals

1- Ramazan Vagheei, Hossein Ganjidoust, Ali-Akbar Azimi, Bita Ayati, Treatment of Nitrate-contaminated Drinking Water Using Autotrophic Denitrification in a Hydrogenised Biofilter, Journal of water and wastewater, Vol:73, Page:34-39, 2009 (In Persian).

2- Ramazan Vagheei, Hossein Ganjidoust, Ali-Akbar Azimi, Bita Ayati, Nitrate removal from drinking and food processing water using hydrogenised biofilter, Journal of food science and technology, Vol:7, No:2, Page:85-92, 2008 (In Persian).

3- H. Roshanravan, M. Borghei, A. H. Hassani, R. Vagheei, Nitrate Removal from Drinking Water Wells by Heterotrophic Denitrification Using Citric Acid as a Carbon Source and Ozonation, Journal of water and wastewater, Vol:31, No:7, Page:63-77, 2020 (In Persian).

4-Mohamad-Reza Ranjbari, Ramazan Vagheei, Behnaz Bigdeli, Mapping groundwater potential in karst formations using geographic information systems and remote sensing, case study: north west of Shahrood Mountains, Journal of Geomatics Science and Technology, Vol:10, No:1, Page:159-181, 2020 (In Persian).

5- Zeinab Torabi, Ramazan Vagheei, Alireza Ghaemi, Drought assessment using standardized precipitation index and random forest algorithm, Journal

of Meteorology and Atmospheric Sciences, Volume 3, Issue 4, 2021, (In Persian).

3-3 Conference Publications

1- Ramazan Vagheei, Hossein Ganjidoust, Ali-Akbar Azimi, and Bita Ayati, "An economc hydrogen and carbon dioxide generator for application to hydrogenotrophic denitrification of drinking water in practical scales", International Conference on Environment 2008 (ICENV2008), Penang, Malaysia, 2008

2- Ramazan Vagheei, Sama Tajasosi, Feasibility and challenges of drinking water Photocatalytic Denitrification Embedded Layer on Ultra-High-Performance Concrete", 3rd International Conference on Applied Researches in Structural Engineering and Construction Management, 2019, Sharif University of Technology, Tehran, Iran.

3- Mohamad-Reza Ranjbari, Ramazan Vagheei, Behnaz Bigdeli, Finding the potential of underground water resources using satellite images and GIS and combining information layers using the Analytic Hierarchy Process (AHP) method", 7th National Conference on Water Resources Management of Iran, Iran, Yazd university, 10-24-2018

4- Asma Zeidabadi-, Ramazan Vagheei, The feasibility of application different optimization methods in the optimal design of the urban water distribution networks, 3rd International Conference on Applied Researches in Structural Engineering and Construction Management, 2019, Sharif University of Technology, Tehran, Iran.

4- Journal Reviewer

- Journal of Water Science and Technology
- Journal of Water Process Engineering

5- Research Projects

5-1 Treatment of nitrate-contaminated drinking water using autotrophic denitrification in a hydrogenised biofilter (Funded by Iran Water Resources Research Company) .

5-2 Assessment of corrosion in sewerage facilities and preventing solutions, (Funded by South Khorasan Water and Wastewater Company).

5-3 Investigating the causes of odor production in the stabilization ponds of the Birjand wastewater treatment plant, its control and treatment plant upgrading plans, (Funded by South Khorasan Water and wastewater Company).

5-4 Upgrading of the Birjand waste stabilization ponds for increasing the treatment efficiency and controlling the odor problem of the treatment plant, (Funded by South Khorasan Water and wastewater Company).

5-5 Using microalgae for treatment of pollutants from Kashfroud river, (Funded by Khorasan Razavi Regional Water Company).

5-6 Feasibility study of using turbines and microturbines in electricity production from the energy potential of pipelines, tanks and pressure relief valves, (Funded by North Khorasan Water and Wastewater Company).

5-7 Nitrate removal from drinking water wells using biological denitrification and ozonation, (Funded by North Khorasan Water and Wastewater Company).

5-8 Performance assessment of Rock Filters for improving effluent quality of waste stabilization ponds in Nishaboor city, (Funded by Khorasan Razavi Water and Wastewater Company).

6- Patents

Patent registration entitled "Upgrading of waste stabilization ponds by designing and installation of a small scale fine bubble diffused aeration system", DOI: 10.22104/IROST.1396.126

7- Master and Ph.D. Thesis (as Principal Supervisor)

- More than 20 master thesis and 4 Ph.D. thesis in Shahrood university of technology.

8- Engineering Experiences

- More than 18 years of consulting experience in planning, process evaluation, pilot testing, design, and commissioning of numeral conventional and advanced water and waste water treatment plants.

9- Courses Taught

- **Undergraduate Courses**

Environmental engineering

Statics

Water and wastewater engineering

Water machines

Water treatment

Wastewater treatment

Water distribution networks

Wastewater collection networks

GIS in civil engineering

- **Graduate and Ph.D. Courses**

Principles of municipal solid wastes management

Design of water treatment plants

Design of wastewater treatment plants

Design of water distribution networks

Design of sewer networks

Design of solid waste landfills

GIS and remote sensing in civil and environmental engineering

Air pollution control engineering

10- Language

• English, Persian

11- Computer Skills

- Water and wastewater Software: WaterGEMS, SewerGEMS, EPANET, WaterCAD, SewerCAD, Mike Net, Mike Urban, Hydromantis GPS-X, SASSPRO, Hydromantis Toxchem, Hydromantis CapdetWorks, Hydromantis WatPro
- Statistical & General Software: ArcGIS, AutoCAD, Microstation, Python, MATLAB