# **Curriculum Vitea**



# Parviz Mohammadi

Date of Birth: 01/12/1971

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# Education:

- ✓ Sabbatical Leave, University of Malaya, Malaysia, 2016-2017.
  Title: UASB-FF Bioreactor Study and Prototyping for Sewage Treatment and the Production of Renewable Energy.
- ✓ PhD Environmental Engineering (Wastewater Treatment), University of Malaya, Malaysia, 2009-2012.

**Title of Thesis**: Biohydrogen Production from Palm Oil Mill Effluent in an Anaerobic Hybrid Bioreactor

✓ M.S. Environmental Engineering, Tehran University, Tehran, Iran, 2000 – 2002.

Title of Thesis: Methane Production from Solid Waste in an Anaerobic Bioreactor

✓ **B.S. Environmental Health Engineering,** Kermanshah University, Iran, 1994-1998.

# **Academic Experience:**

- ✓ Associate Professor, Department of Health Environmental Engineering, Public Health Faculty, Kermanshah University of Medical Sciences. Since 2013.
- ✓ Lecturer, Faculty member, Water and Environment Division, Power and Water Institute for Applied and Scientific Higher Education (Mojtama-e-Gharb), Kermanshah, 10 years.

## **Research Experience:**

- 1. Biohydrogen Production from high strength wastewater in an anaerobic hybrid UASB-FF bioreactors, **Kermanshah University of Medical Sciences**, ongoing.
- Investigation of medical wastes management of Kermanshah province, Environmental Protection Organization Kermanshah Province, 2015.
- 3. Investigating the upgrading of biological treatment capacity in the Kermanshah wastewater treatment plant with the approach of nitrogen removal and energy efficiency optimization through the establishment of the automation system, **Water and Wastewater Company of Kermanshah Province**, 2016.
- Biological hydrogen production from molasses wastewater in an anaerobic hybrid RBC-AS bioreactor, Kermanshah University of Medical Sciences, 2016.
- Kinetic study of biological hydrogen production from molasses wastewater in an anaerobic hybrid RBC-AS bioreactor, Kermanshah University of Medical Sciences, 2017.
- Study of lead and cadmium concentration of Iranian and imported rice in Kermanshah, Kermanshah University of Medical Sciences, 2016.
- Study of lead and cadmium levels in vegetable fields in the suburb of Kermanshah, Kermanshah University of Medical Sciences, 2016.
- 8. Feasibility of upgrading the capacity of the Kermanshah wastewater treatment plant using ultrasonic waves, **Water and Wastewater Company of Kermanshah Province**, 2016.

- Characteristics determination the of powdered and granulated activated carbon derived from grapevine waste and evaluating the efficiency of different activation methods activated carbon for removing methylene blue and reactive red dyes, Kermanshah University of Medical Sciences, 2016.
- Evaluation of changes in the concentration of heavy metals and nutrients in vermicomposting from a mixture of waste (newspaper, grass and manure), Kermanshah University of Medical Sciences, 2016.
- Study on impacts of industrial wastewaters on water streams in Tehran, region 4, Tehran municipality, 2001.
- 12. Study on anaerobic digestion of volatile fraction of municipal solid wastes and biogas production, **Power Research Center, Tehran**, 2002.
- Anaerobic digestibility of Sari's solid wastes, planning and management organization, Mazandaran, 2006.
- 14. Study on hybrid system of activated sludge and RBC efficiency in nitrogen and phosphorous, removal from wastewater, Water and Wastewater Company, Kermanshah, 2010.
- Study on water quality into the water resources of rural using GIS, Rural Water and Wastewater Company, Kermanshah, 2011.

#### Papers Published in Scientific Journal and Conference Proceedings:

- Mozhgan Irandost, Rokhsareh Akbarzadeh, Meghdad Pirsaheb, Anvar Asadi, Parviz Mohammadi, Mika Sillanpää. Fabrication of highly visible active N, S co-doped TiO2@MoS2heterojunction with synergistic effect for photocatalytic degradation of diclofenac: Mechanisms, modeling and degradation pathway. *Journal of Molecular Liquid*. (2019) 111342. (*ISI*)
- Parviz Mohammadi, Nasim Karami, Ali Akbar Zinatizadeh, Farzaneh Falahi, Nasrin Aghamohammadi, Ali Almasi. Using high frequency and low-intensity ultrasound to enhance activated sludge characteristics. *Ultrasonics Sonochemistry*. (2019) 274–280. (*ISI*)
- Chng Saun Fong, Nasrin Aghamohammadi, Logaraj Ramakreshnan, Nik Meriam Sulaiman, Parviz Mohammadi. Holistic Recommendations for Future Outdoor Thermal Comfort

Assessment in Tropical Southeast Asia: A Critical Appraisal. *Sustainable Cities and Society*, (2019), 101428. (*ISI*)

- Bidattul Syirat Zainal, Azam Akhbari, Ali Akbar Zinatizadeh, Parviz Mohammadi, Nuruol Syuhadaa Mohd, Shaliza Ibrahim. UASFF start-up for biohydrogen and biomethane production from treatment of Palm Oil Mill Effluent. *International Journal of Hydrogen Energy*, (2019) 20725-37. (*ISI*)
- Nasim Karami, Parviz Mohammadi, Aliakbar Zinatizadeh, Farzaneh Falahi, Nasrin Aghamohammadi. High rate treatment of hospital wastewater using activated sludge process induced by high-frequency ultrasound. *Ultrasonics Sonochemistry*. (2018) 89–98. (*ISI*))
- Mahin Mohammadi, Parviz Mohammadi, Nasim Karami, Mohamad Suffian Mohamad Annuar, Akbar Barzegar. Efficient hydrogen gas production from molasses in hybrid anaerobic-activated sludge-rotating biological contactor. *International Journal of Hydrogen Energy.* (2019) 2592-2602. (*ISI*)
- Azam Akhbari, Shaliza Ibrahim, Mohsen Vafaeifard, Parviz Mohammadi, Ali Akbar Zinatizadeh, Bid Zainal. Effect of operational variables on biological hydrogen production from palm oil mill effluent by dark fermentation using response surface methodology. *Desalination and Water Treatment*. (2019) 101-113. (ISI)
- Mahin Mohammadi, Parviz Mohammadi, Indoor air pollution and acute respiratory infection among children: an update biomass smoke. *Journal of Air Pollution and Health*. (2018) 49-62.
- Ali Akbar Zinatizadeh, Sirus Zinadini, Sajedeh Rahimi, Parviz Mohammadi. Influence of operating factors (HRT and pressure) and type of membrane (MF and UF) on performance of MBR treating three wastewaters with different BOD5/COD ratios. *Chinese Journal of Chemical Engineering*. Under review. (*ISI*)
- Golshan Moradi, Farzad Dabirian, Parviz Mohammadi, Laleh Rajabi, Mina Babaei, Nahid Shiri. Electrospun fumarate ferroxane/polyacrylonitrile nanocomposite nanofibers adsorbent for lead removal from aqueous solution: characterization and process optimization by response surface methodology. *Chemical Engineering research and Design*. 129 (2018)192-196. (*ISI*)
- 11. Parviz Mohammadi, Shaliza Ibrahim, Mohamad Suffian Mohamad Annuar, Maryam Khashij, Seyyed Alireza Mousavi, Aliakbar Zinatizadeh. Optimization of fermentative

hydrogen production from palm oil mill effluent in an up-flow anaerobic sludge blanket fixed film bioreactor. *Sustainable Environment Research*, 27 (2017) 238-44. (*ISI*)

- 12. Ali Akbar Zinatizadeh, Shaliza Ibrahim, Nasrin Aghamohammadi, Abdul Rahman Mohamed, Hadis Zangeneh, Parviz Mohammadi. Polyacrylamide-induced coagulation process removing suspended solids from palm oil mill effluent. Separation Science and Technology, 52 (2017) 520-7. (ISI)
- 13. Ali Akbar Zinatizadeh, Parviz Mohammadi, Mahsa Mirghorayshi, Shaliza Ibrahim, Habib Younesi, Abdul Rahman Mohamed. An anaerobic hybrid bioreactor of granular and immobilized biomass for anaerobic digestion (AD) and dark fermentation (DF) of palm oil mill effluent: Mass transfer evaluation in granular sludge and role of internal packing. *Biomass and Bioenergy*, 103 (2017) 1-10. (*ISI*)
- 14. Ali Akbar Zinatizadeh, Mahsa Mirghorayshi, Payam Moradi Birgani, Parviz Mohammadi, Shaliza Ibrahim. Influence of thermal and chemical pretreatment on structural stability of granular sludge for high-rate hydrogen production in an UASB bioreactor. *International Journal of Hydrogen Energy*, 42 (2017) 20512-19. (*ISI*)
- 15. Parviz Mohammadi, Shoeib Rahimi, Taibeh Dashtaleh, Younes Sohrabi. Studying the level of knowledge, attitude, and performance among personnel of Doctor Mohammad Kermanshahi and Hazrat Masomeh Hospitals in terms of hospital waste management. *Annals of Tropical Medicine and Public Health*, 10 (2017) 612-7. (*ISI*)
- 16. Parviz Mohammadi1, Shaliza Ibrahim, Mohamad Suffian Mohamad Annuar. Kinetic study of biohydrogen production by anaerobic fermentation in a modified UASB-FF reactor. *Journal of Applied Research in Water and Wastewater*, 8 (2017) 370-2.
- Seyyed Alireza Mousavi, Parastoo Sohrabi, Parviz Mohammadi, Seyyed Majid Daei Neyaki. Investigation of the efficiency of UV/H2O2 process on the removal of Rhodamine B from aqueous solutions. *International Research Journal of Applied and Basic Sciences*, 10 (2016) 456-9.
- 18. Parviz Mohammadi, Liza Freina, Mohamad Suffian Mohamad Annuar, Shaliza Ibrahim, Optimization of dye removal from aqueous Remazol Brilliant Blue R (RBBR) by Trametessp. Pellets. *Journal of Applied Research in Water and Wastewater*, 1 (2015) 2-5.
- 19. **Parviz Mohammadi**, Shaliza Ibrahim, Mohamad Suffian Mohamad Annuar. Hydraulic characteristics analysis of an up-flow anaerobic sludge blanket fixed film (UASB-FF) using

tracer experiments. Journal of Applied Research in Water and Wastewater, 3 (2015) 98-102.

- 20. Parviz Mohammadi, Shaliza Ibrahim, Mohamad Suffian Mohamad Annuar, High-rate fermentative hydrogen production frompalm oil mill effluent in an up-flow anaerobicsludge blanket-fixed film reactor. *Chemical Engineering Research and Design*, 92 (2014)1811-1817. (ISI)
- 21. **Parviz Mohammadi**, Liza Ferina, Shaliza Ibrahim, Mohamad Suffian Mohamad Annuar, Optimization of dye removal from aqueous Remazol Brilliant Blue R (RBBR) by Trametessp. Pellets. *Journal of Applied Research in Water and Wastewater*, 1 (2014) 2-5.
- 22. S.A. Mousavi, P. Mohammadi, S.M. Parastar, M. Ghaebzadeh, F. Kamari, Efficiency of fenton oxidation in rodamine B removal from synthetic solutions, *Journal of water and wastewater*, 2013.
- 23. Parviz Mohammadi, Shaliza Ibrahim, Mohamad Suffian Mohamad Annuar, Shahin Ghafari, S. Vikineswary, Aliakbar Zinatizadeh. Influences of environmental and operational factors on dark fermentative hydrogen production: A review". *Clean-Soil, Air, Water,* 40 (2012) 1297-1305. (ISI)
- Parviz Mohammadi, S. Ibrahim, M.S. Mohamad Annuar. Comparative study on effect of various pretreatment methods on the enrichment of hydrogen producing bacteria in anaerobic granulated sludge from brewery wastewater. *The Korean Journal of Chemical Engineering*, 29 (2012) 1347-1351. (*ISI*)
- 25. Parviz Mohammadi, Shaliza Ibrahim, Mohamad Suffian Mohamad Annuar. Effects of biomass, COD and bicarbonate concentrations on fermentative hydrogen production from POME by granulated sludge". Submitted in *International Journal of Hydrogen Energy*, 37 (2012) 17801-17808. (*ISI*)
- 26. Y. Mansouri1, A.A.L. Zinatizadeh, P. Mohammadi , M. Irandoust, A. Akhbari. Hydraulic characteristics analysis of an anaerobic rotatory biological contactor (AnRBC) using tracer experiments and response surface methodology (RSM). *The Korean Journal of Chemical Engineering*, 29 (7) (2012) 891-902. (ISI)
- 27. A. Akhbari, A.A.L. Zinatizadeh, **P. Mohammadi**, M. Irandoust, Y. Mansouri. Kinetic evaluation of nutrient removal in an anaerobic rotatory biological contactor (RBC) reactor

using tracer experiments". International Journal of Environmental Science and Technology, 9 (2012) 371-378. (ISI)

- 28. Parviz Mohammadi, Shaliza Ibrahim, Mohamad Suffian Mohamad Annuar, Z.S. Law. Effect of different pre-treatment methods on anaerobic mixed microflora for hydrogen production and COD reduction from palm oil mill effluent. *Journal of Cleaner Production*, 19 (2011) 1654-58. (*ISI*)
- A. Akhbari, A.A.L. Zinatizadeh, P. Mohammadi, M. Irandoust, Y. Mansouri. Process modeling and analysis of biological nutrients removal in an integrated RBC and AS system using response surface methodology. *Chemical Engineering Journal*, 168 (2011) 269–279. (*ISI*)
- 30. Mehdardi N., Mohammadi P., Karbasi A., Adl M. Investigation of anaerobic digestion process for biodegradable fraction of municipal solid wastes. *Mohitshenasi Research-scientific magazine, Tehran, Iran,* 34 (2004) 15-19.
- 31. Mohammadi P., Mehdardi N., Karbasi A., Adl M., 2003, "Design, fabricate and start-up of a Lab-scale anaerobic digester for biodegradable fraction of solid wastes". 4th National Congress on Iran Energy.
- 32. Mohammadi P, 2006, " anaerobic digestion of organic fraction of municipal solid waste using a semi – batch digester: a comparative study", International conference on environment 2006 Malaysia, USM, Malaysia.
- 33. Mohammadi P, Mosavi S.A., 2006, "Management of water supply in emergency", 3rd National Congress on Civil Engineering, Tabriz, Iran.
- 34. Mohammadi P, Mosavi S.A, 2006, "Global procedure in the use of clean energies", 6th National Congress on Energy, Tehran, Iran.
- 35. Parviz Mohammadi, Aliakbar Zinatizadeh. 2007, "A review on biological treatment approaches for nitrogen and phosphorus removal from municipal wastewater", *The First Conference on Environmental Management, Engineering, Planning and Economics* (*CEMEPE*), Skiathos Island, Greece.
- 36. Mohammadi P, 2006, Preparation of a booklet entitled "A review on standards for treated wastewater reuse irrigation", *Iranian National Committee on Irrigation & Drainage*.

#### **Teaching Experience:**

Environmental engineering, wastewater treatment, water treatment, industrial wastewater treatment, water treatment plant design, wastewater treatment plant design, water and wastewater chemistry, water supply, wastewater collection networks.

# Administrative Experience:

- 1. Research expert of power research center, Tehran, Iran, 2001-2002.
- 2. Head of Environment Projects Division, consulting engineering company "Advanced researches" Tehran, Iran, 2002-2004
- 3. Dean of water and environment division, Power and Water Institute for Applied Scientific Higher Education (Mojtama-e-Gharb), Kermanshah, Iran, since 2004.

## **Profession Affiliations:**

- Member of research committee, urban water and wastewater company, Kermanshah, Iran.
- Member of research committee, rural water and wastewater company, Kermanshah, Iran.
- Member of research committee, Regional water company, Kermanshah, Iran.
- Member of research committee, Power and Water Institute for Applied Scientific Higher Education (Mojtama-e-Gharb), Kermanshah, Iran.
- Member of Iranian national committee on irrigation and drainage.

#### **Consulting activities:**

- 1. Design of wastewater treatment plant, Armanijan, Kermanshah, Iran, 2005.
- 2. Design of wastewater treatment plant, Cheme, Kermanshah, Iran, 2005.
- 3. Design of industrial wastewater treatment plant of Gorsefid, Kermanshah, Iran, 2006.
- Design of industrial wastewater treatment plant for powdered milk production plant, Amol, Iran, 2003.
- 5. Design of industrial wastewater treatment plant for sugar factory, Ghazvin, Iran, 2003.
- 6. Design of industrial wastewater treatment plant for cement factory, Shahrood, Iran. 2002.
- 7. Design of water supply networks in Bisetoon city, Iran, 2006.
- 8. Design of wastewater collection networks in Sarmast city, Iran, 2007.
- 9. Design of wastewater collection networks in Ravanj, Iran, 2007.