AHMED MUSTAFA FARGHALY

ABU-BAKR ALSEDEEK ST. 6, ALZAHRAA-ASSIUT 71516, EGYPT
ahmed_m_farghaly@eng.au.edu.eg
ResearchGate Account

PERSONAL INFORMATION

- Nationality: Egyptian.
- Date of Birth: Sep. 29, 1986.
- Marital status: Married.
- Phone: +201002002432.

DEGREES & SCIENTIFIC TRANSCRIPT

- Ph.D. of Environmental Engineering (Waste Treatment Technologies), Egypt-Japan University of Science and Technology, Egypt, 2016 (Grade 1.0).
- M.Sc. of Sanitary and Environmental Engineering (Drinking Water Treatment Technologies), Assiut University, 2013 (Grade 1.0).
- B.Sc. of Civil Engineering, Assiut University, 2008 (Grade 1.7).

LANGUAGE SKILLS

- Arabic: mother language.
- English: International iBT TOEFL (88).

HOBBIES

- Reading.
- Social activities.

ACADEMIC EXPERIENCE & CAREER TRANSCRIPT

- Assistant Professor, Sanitary and Environmental Engineering Dept., Assiut University, (2016-present).
- Visiting Assistant Professor, Civil Engineering Dept., South Valley University, (2017-present).
- Academic Advisor of The Scientific Undergraduates Association of The Faculty of Engineering, Assiut University, (2017-present).
- Member at Engineering Studies and Consultations Center, Assiut University, (2016-present).
- Teaching Assistant, Sanitary and Environmental Engineering Dept., Assiut University, (2013-2015).
- Demonstrator, Sanitary and Environmental Engineering Dept., Assiut University, (2009-2012).

POSTGRADUATE TRAINING & EDUCATION

- Tokyo Institute of Technology, Tokyo, Japan, Lignocellulosic Solid Waste Treatment Using Chemical Approaches, January to July, 2016.
- National Institute of Environmental and Agricultural Sciences, Rennes, France, Molecular Microbiology Analysis of Wastewater Biological Treatment Processes, August to November, 2015.

RECENT RESEARCH INTERESTS

Sustainable Methane Production from Agricultural Lignocellulosic Biomass Using a Hybrid Microbial Electrolysis Cell and Anaerobic Digestion System. The objectives of this study are mainly related to boosting the performance of the microbial community inside the system considering:

- The optimum proportion of exoelectrogens to mixed consortium for compromising the ultimate degradation of the lignocellulosic biomass complex composition.
- Potential enhancement of the direct interspecies electron transfer using graphene-covered cathode given its high conductivity.
- Investigating the protein-rich Moringa Oleifera seeds for enhancing the tightly bound extracellular polymeric substances inside the system.
- The robustness of the system and the population resilience against a sudden stop that could be occurred due to technical problems or unscheduled maintenance.

TEACHING EXPERIENCE

➢ **Undergraduates Courses:**

- Sanitary and Environmental Engineering, (2009-2013).
- Hydraulics and Fluid Mechanics, (2010).
- Irrigation and Drainage Systems Engineering, (2010-2012).

➢ **Postgraduates Courses:**

- Sanitary and Environmental Engineering, (2016-2017).
- Water Quality Control, (2016-2017).
- Industrial Wastes Treatment Technologies, (2016-2017).

RECENT DOCTORAL & MASTER STUDENTS SUPERVISION

➢ **Ph.D. Students:**

- Eman Maher, "Optimization of Solar Photocatalytic Degradation of Dyes Using Various Catalysts and Reactor Configurations".

➢ **M.Sc. Students:**

- Kareman Nashaat and Hanan Mohamed, "Physicochemical Pretreatment of Lignocellulosic Solid Wastes".
- Ali Shehata and Abdallah Salah, "Adsorption of Heavy Metals from Aqueous Solutions by Ceramic Membranes".
- Mohamed Wazery, "Adsorption of Dyes Using Low-Cost Agricultural Solid Waste".
- Israa Abdelhamid, "Use of Moringa Oleifera as a Natural Coagulant in Drinking Water Treatment".

PUBLICATIONS

➢ **Journal Publications:**

- A. Farghaly, S. Le Roux, P. Peu, P. Dabert, A. Tawfik. "Effect of starvation period on microbial community producing hydrogen from paperboard mill wastewater using anaerobic baffled reactor". *Environmental Technology*, 2018, Taylor & Francis.
- A. Farghaly, M. Elsamadony, S. Ookawaraa, and A. Tawfik. "Bioethanol Production from Paperboard Mill Sludge Using Acid-Catalyzed Bio-derived Choline Acetate Ionic Liquid Pretreatment Followed by Fermentation Process". *Energy Conversion and Management*, 2017, 145: 255-264, Elsevier.
- A. Farghaly and A. Tawfik. "Simultaneous Hydrogen and Methane Production through Multi-Phase Anaerobic Digestion of Paperboard Mill Wastewater under Different Operating Conditions". *Applied Biochemistry and Biotechnology*, 2017, 181: 142-156, Springer.
- A. Farghaly, A. Enitan, S. Kumari, F. Bux, and A. Tawfik. "Polyhydroxyalkanoates Production from Fermented Paperboard Mill Wastewater Using Acetate-Enriched Microbial Culture". *Clean Technology and Environmental Policy*, 2017, Springer.
- A. Mostafa, A. El-Dissouky, A. Fawzy, A. Farghaly, P. Peu, P. Dabert, and A. Tawfik. "Magnetite/Graphene Oxide Nano-Composite for Enhancement of Hydrogen Production from Gelatinaceous Wastewater". *Bioresource Technology*, 2016, 216: 520-528, Elsevier.
- A. Farghaly, A.Tawfik, and A. Danial. "Inoculation of Paperboard Sludge versus Mixed Culture Bacteria for Hydrogen Production from Paperboard Mill Wastewater". *Environmental Science and Pollution Research*, 2016, 23:3834–46, Springer.
- A. Manal, A. Farghaly, S. Leroux, P. Peu, P. Dabert, and A. Tawfik. "Potentials of Using Non-Inoculated Self-Aerated Immobilized Biomass Reactor for Post-Treatment of Up-Flow Anaerobic Staged Reactor Treating High Strength Industrial Wastewater". *Journal of Chemical Technology & Biotechnology*, 2016, 92: 1065-1075, Wiley.
- A. Farghaly, A. Tawfik, and Mona Gamal El-Din Ibrahim, "Surfactant-Supplemented Mixed Bacterial Cultures to Produce Hydrogen from Paperboard Mill Wastewater". *Engineering in Life Sciences*, 2015, 525-532, Wiley.
- A. Farghaly, A.Tawfik, and Mona Gamal El-Din Ibrahim, "Continuous Biological Treatment of Paperboard Mill Wastewater along with Hydrogen Production". *Energy Procedia*, 2015, 74: 926–932, Elsevier.
- A. Farghaly, A. Ahmed, A. Gad, M. Hashem. "A Study for Producing Drinking Water with Safe Trihalomethanes Concentrations". *Clean Technologies and Environmental Policy*, 2014, 16: 807-818.

➢ **Conference Publications:**

- A. Farghaly and A. Tawfik. "Effect of Using Paperboard Bacterial Culture on Fermentative Hydrogen Production from Paperboard Mill Wastewater". *The Sixth Asian Conference on Sustainability, Energy & the Environment*, 2016, Kobe, Japan.
- A. Farghaly and A. Tawfik. "Influence of Using Tween 80 and Polyethylene Glycol 6000 on Hydrogen Fermentative of Paperboard Wastewater". *International Conference of Industrial Academia Collaboration*, 2015, Cairo, Egypt.

TECHNICAL WORK EXPERIENCE

Participating in the design of:

- Assiut University new campus at New Valley, 2017.
  - Potable groundwater treatment plant,
  - Drinking water network,
  - High elevated tank.
- Sohag International Airport, 2009.
  - Drinking water network,
  - Sewage network.
- Faculty of Engineering, Bani-Suef University, 2010.
  - Drinking water network,
  - Sewage network.
  - Groundwater tank.
- Sewage network and pumping stations of different villages in Upper Egypt, 2010-2012.
  - Assiut: Bani-faiz, Nazlet Alablaq, Qurqares, Bowait.
  - Quena: Elsheikh Ali, Alsabreyat, Saeed, Faw, Azouz.
  - Elmenya: Almaragha.
- Many residential, commercial, and administrative buildings, 2009-2017.
- Firefighting network of Akhnatoun Museum, Elmenya, 2010.
- Syphon of Nazzah Albahareya village, 2010.
- Aqueducts of Qeft and Bani-Faiz villages, 2010.
- Designing the Saqulta slaughterhouse sewage network and septic tank, Sohag, 2009.
- Swimming pool of Arbaein stadium, Assiut, 2009.

- Technical Support Engineer and instructor, CEMEX Company for cement industry in Assiut, 2006-2011 (Part-time).

SOFTWARE

- AutoCAD 2D.
- WaterGEMS.
- SewerGEMS.
- Microsoft Office.
- SAP2000.