Contact

www.linkedin.com/in/eamh
(LinkedIn)

Top Skills

Wastewater Treatment
Microsoft Excel
Process Simulation

Languages

Spanish (Native or Bilingual)
English (Full Professional)
French (Elementary)

Certifications

Internal Auditor, Integrated Management Systems
Introduction to Water Treatment

Honors-Awards

Class Valedictorian
Philanthropic Medal
SENESCYT Scholarship

Andrés Morales

Industrial Scientist
Guayaquil Metropolitan Area

Summary

With 5+ years of experience in the Water, Food and Beverage industry, I have helped organisations grow through process engineering, product research and development (R&D), and operations management.

Experience

Universidad de Guayaquil
Sessional Lecturer
December 2021 - Present (9 months)
Guayaquil, Ecuador

Aditivos y Alimentos S.A., Adilisa
R&D Manager
July 2020 - December 2021 (1 year 6 months)
Guayaquil, Ecuador

Universidad de las Fuerzas Armadas - ESPE
Sessional Lecturer
December 2020 - October 2021 (11 months)
Sangolquí, Pichincha, Ecuador

Universidad de Guayaquil
Junior Lecturer
September 2016 - September 2018 (2 years 1 month)
Guayaquil, Ecuador

Organised computer-aided courses such as Numerical Methods and Process Simulation at the Faculty of Chemical Engineering, whilst also provided guidance to undergraduates' capstone projects.

Veolia Ecuador
2 years 6 months

Operations Manager
April 2014 - March 2016 (2 years)

Guayaquil, Ecuador

In charge of the operations and maintenance of 15 Wastewater Treatment Plants (WWTP) in the city of Guayaquil, serving a population equivalent (PE) of 300 000.

Accomplishments during this period include the deployment of Key Performance Indicators (KPI) and their association with Opex costs to establish benchmarks for energy conservation measures (ECM) and establish effective strategies for effluent monitoring and surveillance. In addition, wastewater operators were trained in best practices for the handling and use of field kits and sensors (pH, ORP, DO, TSS) for wastewater sampling and characterization.

My efforts in the Wastewater Division led me to be chosen as the sole representant in my organization to participate in seminars for industrial development opportunities in Latin America, organised by Veolia HQ in France. Moreover, I also was considered to participate in Technical Workshops organised by Veolia Centers of Excellence (CoE), to discuss Energy Management issues in Municipal Wastewater treatment plants.

Starting in 2015, I worked on a side-project, giving advice and technical support on Build-Operate-Transfer (BOT) projects aimed at potential industrial clients in the food and beverage sector within the country. Water Quality Reports (Fieldwork + Laboratory Results interpretation) were prepared for the Business Development Unit of Veolia Ecuador.

Project Engineer
October 2013 - March 2014 (6 months)
Guayaquil, Ecuador

As part of the Project Management Division, I gave technical support on the feasibility studies prepared by Hazen & Sawyer for the regional WWTP Los Merinos & Las Esclusas in the city of Guayaquil, putting special emphasis on process design and mass balance calculations for the Guayacanes - Samanes stabilization ponds revamping project.

Grupo Bimbo
Research Intern
March 2012 - May 2013 (1 year 3 months)
Ecuador

This research dealt with a holistic assessment of the wastewater treatment plant (WWTP) of Grupo Bimbo in Guayaquil, combining experimental and simulation studies. Experimental studies included jar tests to characterize the raw wastewater, and pilot-scale runs for the biological treatment to determine the biokinetic coefficients that govern the activated sludge process. Dynamic simulation runs were performed using MATLAB and Simulink to predict the performance of the activated sludge subsystem of the WWTP and effluent quality, in terms of Chemical Oxygen Demand (COD) and Total Suspended Solids (TSS).

Recommendations were presented at the managerial level, based on the thesis findings. For the primary treatment, the optimal dosage of coagulants and flocculants plus primary treatment tanks modifications were presented, aimed at improving biological conditions whilst significantly reducing operational costs, around 35%. On the secondary treatment, a change of blowers was recommended, plus operational changes in the purge system to overcome issues such as sludge bulking and clarifier overloading.

Education

The University of Edinburgh

Master of Science - MS, Advanced Chemical Engineering · (2018 - 2019)

Escuela Superior Politécnica del Litoral

Bachelor's degree, Chemical Engineering · (2007 - 2013)