

# Daniel Enrique Kelly Coto

*MSc. in Environmental Technology and Engineering*

Dedicated and proactive MSc. in Environmental Technology and Engineering specializing in water technology and resource recovery. Experience in applied research, consultancy services, and collaborating with multicultural teams on cross-functional projects. Committed to addressing global water challenges through innovative solutions.



## Contact

---

### Address

Leeuwarden, The Netherlands

### E-mail

[danielenrique.kellycoto@wetsus.nl](mailto:danielenrique.kellycoto@wetsus.nl)

## Scientific interests

---

Reverse osmosis

Desalination

Electrodialysis

Scale-up

Water reuse

## Languages

---

**Spanish:** Native language

English           Advanced (C1)

Dutch             Beginner (A1)

French            Beginner (A1)

## Skills

---

Analytical thinking

Team collaboration

Adaptability

Proactiveness

## Education

---

**Sept. 2022 – Sept. 2024**   **Master of Science: Environmental Technology and Engineering (IMETE)**

*IHE Delft, Ghent University, VSCHT Prague - The Netherlands, Belgium, Czech Republic*

- Dissertation: Assessment of Scaling Prevention and Fouling Effects of Antiscalants in Reverse Osmosis Systems
- Supervisor: Prof. M.D. Kennedy, PhD.
- Relevant coursework: Desalination and water reuse, physico-chemical resource recovery from aqueous waste streams, surface and groundwater treatment, wastewater treatment, and bioresource recovery engineering.

**Feb. 2015 – Nov. 2021**   **Bachelor of Science: Environmental Engineering**

*Technological Institute of Costa Rica - Costa Rica*

- Dissertation: Water quality in drinking water utilities of Alajuela, Cartago, and Puntarenas: first level parameters, natural organic matter and trihalomethanes. Modeling of the formation of trihalomethanes. Grade 100/100.
- Supervisor: Prof. L.G. Romero-Esquivel, PhD.
- Relevant coursework: Supply, design, and treatment of drinking water, environmental thermodynamics and kinetics, analysis and experimental design, and unit operations.
- Average Grade: 90.1/100.

## Software skills

---

PHREEQC  
Membrane Master 5  
IMS Design  
Minitab  
R  
Phyton  
Matlab

## Work experience

---

June 2023 – July 2023

### Internship: Environmental Engineer

*Acacia Water, Gouda, The Netherlands*

- Conducted research on pesticide transport through soil using PHREEQC and HYDRUS 1D software.
- Evaluated screen-printed electrodes for pH and phosphate level measurements.
- Developed detailed manual covering testing procedures and hardware configurations.

Jan. 2022 – July 2022

### Environmental Engineer

*Distribuidora Mundial Industrial S.A., Cartago, Costa Rica*

- Proactively monitored and ensured compliance with environmental management plans.
- Served as technical consultant on environmental policies to maintain regulatory compliance.

Feb. 2018 – Nov. 2021

### Part Time: Research Assistant

*Environmental Protection Research Center (CIPA), Cartago, Costa Rica*

- Actively supported execution of experiments related to drinking water treatment technologies.
- Conducted comprehensive risk evaluations of 10 drinking water infrastructures and provided practical prevention recommendations.

June 2019 – Dec. 2019

### Internship: Environmental Engineer

*Hidrogeotecnia LTDA., San José, Costa Rica*

- Provided valuable support to various consultancy projects focused on water treatment and solid waste management.
- Assisted in preparation of environmental regulatory reports related to drinking water supply systems.

## Achievements

---

Erasmus Mundus  
Scholarship Holder,  
2022 - 2024 from the  
European  
Commission

Academic Excellence  
Scholarship, 2016 -  
2021 from the  
Technological  
Institute of Costa Rica

## Research Record

---

Araya-Obando, J. A., Rietveld, L. C., **Kelly-Coto, D. E.**, Quesada-González, A., Caballero-Chavarría, A., & Romero-Esquivel, L. G. (2023). Start-up of non-bioaugmented pumice biofilters in flow-through and recirculating flow regime for Mn removal. *Water Supply*, 23(4), 1587–1598.

**Kelly-Coto, D. E.**, Gamboa-Jiménez, A., Mora-Campos, D., & others. (2022). Modeling the formation of trihalomethanes in rural and semi-urban drinking water distribution networks of Costa Rica. *Environmental Science and Pollution Research*, 29, 32845–32854.

## Hobbies

---

Mountain biking, drumming, soccer, and entrepreneurship.