

# Mehdi Pejman

PhD Candidate, Polytechnic of Turin



## Contact

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## Languages

English – Proficient

French – Intermediate

Persian – Native

## Academic Projects

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- UV-assisted MOFs grafting on ultrafiltration membranes for fouling mitigation and antimicrobial activity (current project)
- Coupling zwitterions with in-situ growth of MOFs: achieving high antifouling property in TFC polyamide membranes with long term flux stability (under authorship)
- TFN FO membranes incorporated with Ag-MOFs for high antifouling and antimicrobial capacity (under authorship)
- Improved antifouling and antibacterial Properties of Forward Osmosis Membranes through Surface Modification with Zwitterions and Silver-based Metal Organic Frameworks (submitted: Nov 2019, *ACS Applied Materials and Interfaces*)
- Assessment of shear strength parameters of hydrocarbon contaminated sand: experiment and machine learning methods (revision requested: November 2019, *Georisk*)
- Biochars derived from marine macroalgae as a mesoporous by-product of hydrothermal liquefaction process: Characterization and application in wastewater treatment (2019, *Journal of Water Process Engineering*)

## Instruments & Software

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- Nicolet iS50 FT (ATR-FTIR), DSA 100 (contact angle), Anton Paar Surpass (zeta potential measurement), UV-Vis spectroscopy, UV-grafting lamp
  - Microsoft Office (Word, Excel, PowerPoint), Origin, Surpass (zeta potential), CasaXPS (XPS analysis), Gwyddion (AFM analysis), Omnic (FT-IR)
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## Education

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**PhD:** Civil and Environmental Engineering at DIATI, working on the development of novel antifouling and antibacterial membranes under the supervision of Prof. Tiraferri

**Master of Science:** Water and Wastewater Engineering, College of Engineering, University of Tehran

**Bachelor of Science:** Civil Engineering, College of Engineering, Shiraz University

## Certifications

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**Drinking Water Treatment:** DelftX course

**Urban Sewage Treatment:** DelftX course