



Emanuele Oddo

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WORK EXPERIENCE

Project manager

Fondazione Eni Enrico Mattei (FEEM) [02/2022 – Current]

City: Milano

Country: Italy

Management and technical support to innovation and research-focused projects dealing with energy transition, advanced energy solutions for decarbonization, and public policies for sustainable development. The job involves management and supervision of all main project phases, including procurement, stakeholders' engagement, networking, and dissemination activities. The major projects (more than \$500k budget each) are:

- ENI Award: high-quality prize aimed to promote and award research and technological innovation in the fields of energy, environment, and energy transition. FEEM provides logistical and technical support throughout all phases of the Prize (call for application, candidatures' ranking, final selection meeting, prize giving ceremony);
- FEEM Health Committee ("Comitato Salute FEEM" in Italian): institution of a scientific board with the aim of monitoring, advisory, and disseminating research on occupational hygiene, toxicology, and models of governance for health and social services. FEEM provides logistical and technical support in the elaboration of the deliverables (working papers and conference contributions), engagement with stakeholders and organization of an annual conference.

Research assistant

Politecnico di Milano [11/2021 – 02/2022]

City: Milano

Country: Italy

Experimental research activity in collaboration with Eni Innovation R&D laboratories. The goal was the identification of alternatives to HF for low-temperature digestion and characterization of catalysts and geological samples. The experimental tests allowed to define an effective procedure for achieving the digestion at lower temperature and pressure, and most importantly employing less harmful salts in place of HF. The final results were presented in a meeting with Eni R&D representatives and paved the way for future collaborations and possible publications.

Research collaborator

Fondazione Eni Enrico Mattei (FEEM) [06/2020 – 05/2021]

City: Milano

Country: Italy

Drafting and revision of two chapters of the report "Roadmap to 2050: The Land-Water-Energy Nexus of Biofuels". The project was coordinated by Fondazione Eni Enrico Mattei (FEEM) UN Sustainable Development Solutions Network (SDSN).

- The work was organized through periodic meetings with the core team, which consisted of people from rather different cultural and geographical context (USA, Brazil, Italy, South East Asia), allowing me to value this cultural diversity and get used to coordinate with people from across the globe;

- The two chapters I worked on concerned a systematic review of available technologies for biofuel production and a case study regarding the potential of wastes for bio-derived fuels in the European Union. The first draft of the report was corroborated by the inputs of experts from different fields, collected during an online workshop organized by FEEM and UN SDSN.

I had the chance to give a presentation of the preliminary results to roughly 60 experts during the workshop, and the final version of the report was also launched during the Zero Emissions Solutions Conference at COP26. Both preliminary and final version of the two chapters I worked on, received really positive feedback and were often addressed as the best realised and most comprehensive within the report.

Academic advisor

Politecnico di Milano [02/2019 – 02/2022]

City: Milano

Country: Italy

I provided integrative seminars for the bachelor course of "Safety and reliability in the process industries". These lessons covered different topics, including statistics and Boolean algebra, chemical kinetics and ideal chemical reactors, and flow diagrams (BFD, PFD e P&I). The lectures required proper tailoring due to the students' varied backgrounds, and I received numerous positive feedback from students (also after the final exam).

University teaching assistant

Politecnico di Milano [09/2018 – 02/2022]

City: Milano

Country: Italy

Practical and theoretical lectures to roughly 200 students and drafting and revision of written exams. I carried out these activities for three academic years, for three different courses: fluid mechanics, end-of-pipe and emergency spills treatments A+B, and safety analysis and occupational hygiene. Giving lectures to huge classes was a good practice for public speaking as well as for effective communication, as confirmed by students' in person feedback and anonymous assessment (typically 3.9/4).

EDUCATION AND TRAINING

Doctorate degree in Materials Engineering (cum laude)

Politecnico di Milano [2018 – 2022]

Address: Milano (Italy)

Level in EQF: EQF level 8

Thesis: Remediation of degreasing wastewaters with combined electrochemical and biological methods. The work involved the development of an approach for easy and cost-effective treatment of refractory industrial effluents, through the study of the electrode materials as well as the optimization of either stand-alone and combined remediation processes. The final coupled system was able to treat several degreasing wastewater samples, providing removal efficiencies close to 100% with a limited power consumption. During the project I supervised several master students during lab activities and thesis elaboration, guiding their laboratory experiences and the interpretation of experimental data.

I was also tasked with a side project dealing with the synthesis of amino-functionalized magnetic nanoparticles for CO₂ sorption. I worked from scratch in identifying the optimal procedure for the synthesis and functionalization of the magnetic nanoparticles, and also characterize their structural properties and the performances in terms of CO₂ capture and regenerability. Again, I was tasked with training and supervision of three master students working on this project.

Additionally, I had the chance to deepen the subject of my master thesis, namely the characterization of the emissions from scented products. I conducted additional experiments on a larger batch and tried to identify more general correlation between the products' composition and their resulting pollutant emissions.

Finally, several PhD courses provided me with a sound framing about sustainable development, environmental issues, land and water scarcity, and human security within energy and environmental transition.

CAPM - Certified Associate in Project Management

Project Management Institute (PMI) [13/01/2022]

Website: <https://www.pmi.org>

Valid until: 13/01/2025

Link: https://www.credly.com/badges/4f14a0a6-e703-4e69-a74b-62b6357632a0/public_url

The PMI-CAPM certifies the knowledge in the principles and terminology of project management as well as in the global standard of the profession. It provides the owner with the tools to apply this expertise to on-the-job experiences and in the practice of project management.

"Going circular with critical raw materials" summer school

Lake Como School of Advanced Studies and EIT Raw Materials [05/09/2021 – 09/09/2021]

Address: Como (Italy)

Principles of circular economy applied to sustainable management of (critical) raw materials, with particular focus on company and supply chain perspectives (product design solutions, closed-loop supply chains).

"Human security and sustainable development" diploma

Italian Institute for International Political Studies (ISPI) [10/06/2021 – 07/07/2021]

Address: Milano (Italy)

Selected courses addressing sustainability and security from a geopolitical perspective, including:

- Food security and nutrition
- Global governance and the role of international organizations
- Disaster Risk Reduction (DRR)

"Agile engineer" course

FOIM (Fondazione dell'Ordine degli Ingegneri della Provincia di Milano) [01/2021 – 02/2021]

Address: Milano (Italy)

Website: <https://foim.org>

The course introduced the Agile manifesto and its working principles, the benefits in the project management compared to waterfall approach and the key role of the "Scrum" group, through frontal lectures and practical sessions.

Master's degree in Chemical Engineering (cum laude)

Politecnico di Milano [2015 – 2017]

Address: Milano (Italy)

Level in EQF: EQF level 7

Final grade: 110/110 cum laude. Thesis: Characterization of the emissions from scented tea-light candles. The thesis involved the monitoring and control of airborne pollutants from the lighting of scented tea-light candles in indoor environments, which is a subject poorly investigated in the literature, despite having a relevant impact on the health of many consumers as well as on local markets.

Bachelor's degree in Chemical Engineering

Politecnico di Milano [2012 – 2015]

Address: Milano (Italy)

Level in EQF: EQF level 6

Thesis: Platinum promotion of Fischer-Tropsch Cobalt-based catalysts.

Largely exploited during WW II to fuel the German army, Fischer-Tropsch synthesis experienced an increasing popularity lately due to oil price fluctuations. It is still considered an appealing route for the production of light and heavy-duty fuels as well as for high-value chemicals, especially when working with bio-based syngas.

High school Classical diploma

Liceo classico e linguistico "Carlo Alberto" [2006 – 2012]

Address: Novara (Italy)

Final grade: 100/100 cum laude – Level in EQF: EQF level 4

Thesis: The varied and paradoxical universe of Weimar republic

CONFERENCES AND SEMINARS

"Eni&MIT - Technology Path to 2050" Day 2 (moderator for brainstorming and speaker)

[Eni Research Centre, San Donato Milanese, Italy, 20/07/2022 – 21/07/2022]

International conference featuring MIT plenary lecturers and brainstorming sessions on selected key topics, including electrocatalytic processes (especially for CCU) and nuclear fusion.

"Eni&MIT - Technology Path to 2050" Day 1 (moderator for brainstorming session)

[Research Centre for Renewable Energy and the Environment, Novara, Italy, 19/07/2022]

International conference featuring MIT plenary lecturers and brainstorming sessions on selected key topics, including energy storage, solar cells, and green hydrogen.

"Roadmap to 2050: Biofuel Technologies" (speaker and moderator)

[SDSN - FEEM "Roadmap to 2050: the Land-Water-Energy Nexus of Biofuels" online workshop, 15/10/2020 – 25/10/2020]

organized by Sustainable Development Solutions Network (SDSN) and Fondazione ENI Enrico Mattei (FEEM)

"Improved biodegradability of food industry effluents through electrochemical oxidation" (speaker)

[PhD workshop organized by Innovhub (oil and greases branch), Milano, Italy, 24/03/2021]

Link: <https://www.innovhub-ssi.it/>

"Preliminary study of degreasing wastewaters remediation through combined approaches" (speaker)

[PhD workshop organized by Innovhub (paper and textiles branch), Milano, Italy, 15/01/2020]

Link: <https://www.innovhub-ssi.it/>

"Preliminary characterization of the emissions from scented tea-light candles" (speaker)

[Joint Meeting of the German and Italian sections of the Combustion Institute, Sorrento, Italy, 22/05/2018 – 25/05/2018]

Link: <http://www.combustion-institute.it/images/stories/41.html>

PUBLICATIONS

[E. Oddo, "Remediation of degreasing wastewaters by combined electrochemical and biological processes"](#)

Ph.D. thesis, PoliTesi, Politecnico di Milano (2022)

[C.S. Goh, M. Masi, L.A. Horta Nogueira, E. Oddo, M.C. Rulli, J.E.A. Seabra, "Roadmap to 2050: the Land-Water-Energy Nexus of Biofuels"](#)

SDSN - FEEM (2021)

E. Oddo et al., "Characterization of the emissions from scented tea-light candles"

Indoor Air (2023), submitted

E. Oddo et al., "Amino-functionalized magnetic nanoparticles for carbon dioxide capture"

International Journal of Smart and Nano Materials (2021)

E. Oddo et al., "Magnetic nanoparticles for carbon capture" in Chemical Engineering Greetings to Prof. Laura Annamaria Pellegrini on occasion of her 65th birthday

AIDIC (2021), ISBN 978-88-95608-99-0

E. Oddo and M. Derudi, "Preliminary characterization of the emissions from scented tea-lights candles"

Proceedings of the Joint Meeting of the German and Italian Sections of the Combustion Institute, Sorrento, Italy (2018), ISBN 978-88-88104-22-5

NETWORKS AND MEMBERSHIPS

Member of the "Northern Italy Chapter" (NIC) of the Project Management Institute (PMI)

[11/2021 – Current]

As a newcomer in the field of project management, joining the NIC-PMI was a great opportunity to connect with a large community of project management professionals as well as to widen my expertise through webinars and events on selected topics.

PROFESSIONAL QUALIFICATION

Industrial Engineer qualification

[2020 – Current]

I passed the Italian State Exam for qualification as Industrial Engineer (requiring master of engineering), further assessing my professional expertise and granting me the access to the Italian professional order for industrial engineers.

HONOURS AND AWARDS

PhD scholarship prize | for merit

Politecnico di Milano [2018]

"Enrico Gregotti" award | for merit

Liceo classico e linguistico "Carlo Alberto" [2012]

LANGUAGE SKILLS

Mother tongue(s): **Italian**

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

French

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

DRIVING LICENCE

Driving Licence: B