

WE HAVE A POSITION FOR

# MASTERARBEIT/MASTER THESIS

## Title of the work:

“Optimization of Power-to-Fuel Plants: Developing a Surrogate Model for Green Methanol Production “

## Background:

Are you looking for an exciting and innovative thesis opportunity? Join the EU Project GreenDEALCO<sub>2</sub> team and help drive the transition to a more sustainable energy future. In this thesis, you will work on developing an optimization model for green methanol production to be integrated into a power-to-fuel plant. The model will be a surrogate model based on already existing/open source model libraries in python such as IDAES. The goal of this work is to develop a python based (OEMOF) technically sound and easy-to-integrate surrogate model for power-to-methanol synthesis that can be used to determine optimal system sizing and operation schedules.



## Outline of the contents:

- Literature review of power-to-fuel processes and surrogate modeling techniques
- Development of surrogate model using state-of-the-art techniques
- Setting up optimization model
- Written documentation of the work

## Benefits:

- You will gain hands-on experience with open energy modeling and learning it on-the-go.
- Increase in knowledge related to Power-to-X systems.
- Contribute to the transition to a more sustainable energy future.
- The expected duration of the thesis is 6 months. We are seeking a highly motivated and qualified individual to join our team. If you're interested in this opportunity, please send an email with your resume to the contact person expressing your interest in the topic.

## Are you interested? contact me

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