

WE HAVE A POSITION FOR

MASTERARBEIT/PROJEKTARBEIT

In the field of Modeling and optimization of Power-to-x systems

Title of the work:

“Modeling of Power-to-x* systems (*x=Green Methanol & Fischer-Tropsch Fuels)“

Background:

With an aim to facilitate the rapid phasing out of coal, the EU Project GreenDEALCO₂ aims to promote cost-efficient integration of power-to-fuel technologies in end-of-life and closed power plants. EVT is responsible for design and operational optimization for power-to-fuel plants retrofitted in end-of-life and closed coal power plants. For optimal system sizing, integration and operation, a technically sound and easy-to-integrate model needs to be developed for power-to-Methanol and Fischer-Tropsch synthesis. The results of this integrated model will then be used to determine size of the system components and optimal operation schedule for the power-to-fuel plant.



Outline of the contents:

- Literature study on: Power-to-fuel processes, Surrogate modelling and optimization techniques
- Preparation of data and simulation models
- Identification of parameters for surrogate modeling
- Development of surrogate model using state-of-the-art techniques
- Setting up optimization model
- Written documentation of the work

Requirements:

- Thermodynamic understanding of the process
- Interest in programming to solve energy related problems
- Duration: 6 months, payment given

Are you interested? contact me

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