

WE OFFER

BACHELOR-/MASTER-/ PROJECT-THESIS

In the field of CCU

Title:

„Data collection and analysis of various industrial CO₂ sources“

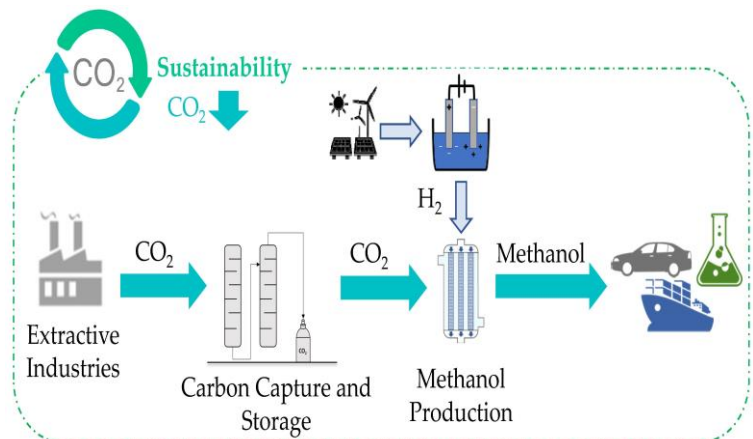
Background:

This thesis is associated with the DirectCCE project, which aims to investigate a system for capturing CO₂ and utilizing it to produce value-added products, including methanol. Industrial sectors such as power generation, cement manufacturing, steel production, and chemical processing are significant contributors to global CO₂ emissions, and understanding the specific characteristics of their emissions is essential for developing effective CCU solutions. The primary goal of this thesis is to gather and analyze real-time data from multiple industrial facilities, including flue gas parameters such as temperature, pressure, flowrate, and CO₂ concentration. These parameters are crucial to simulate the Industry-based CO₂ capture technology integrated with methanol synthesis production.

Investigation of different CO₂ sources can result in identifying the most effective scenarios to integrate CO₂ capture and methanol synthesis process.

Outline of the content:

- Literature review of industrial CO₂ sources
- Gathering data for the system
- Graphical visualization and discussion
- Written documentation of the project



Requirements:

- Background in Chemical Engineering and thermodynamics
- Programming and data analysis skills
- Motivation to Solve Complex Problems
- Showing interest in CCU technologies

Work Load: ca. 7 months (MA) / 4 months (BA,PJ) / 75h pro Person (PD)

You are interested? Please contact:

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