

Vak: Energy Transport, Distribution & Storage

credits: 5

Vakcode	ZVWH20ETDS	Werkvormen	Werkcollege
Naam	Energy Transport, Distribution & Storage	Toetsen	Assignment ETDS - Opdracht
Studiejaar	2020-2021		Theory - Computer, organisatie
ECTS credits	5		tentamenbureau
Taal	Engels		
Coördinator	A. Perl		

Leeruitkomsten

After the completion of the module the student is able to:

- Independently gather, select and analyse relevant new information in a responsible way by using scientific databases, correct search terms and evaluating the source of the information.
- Formulate and critically verify a research question with subquestions through a logical line of reasoning from the practical problem to the specified research question.
- Systematically investigate possible design concepts for a storage system based on critically analyzing (empirical) data, so that it leads to a proof-of-concept design based on technical requirements.
- Critically validate the answer to the research question with subquestions through a logical line of reasoning from the specified research question to the specific solution.
- Critically reflect on the systematical investigation and results, recognizing strengths and weaknesses and indicating possible improvements to obtain a specific solution based on the conceptual storage design.
- Communicate the new insights, obtained by critically performing research contributing to the forefront of storage design, in a logical line of reasoning to a public of experts by writing a research paper, with high information density, leaving no gaps.

Main learning outcomes dealt within this module:

Academic outcomes:

- to formulate a problem definition, employ specific research and analysis methods and plan and conduct research on real-life non-routine problems.
- to translate a practical problem into questions forming a conceptual model, to collect relevant data and to translate the outcomes of the model into answers to the original problem.

Application-oriented outcomes:

- integrating renewable energy sources (wind, solar [photovoltaic, thermal], biomass energy) into a flexible, distributed energy system.
- applying the principles of integrated storage techniques.

Inhoud

During this module the student participates in the Entrance research environment on developing the adsorbed natural gas storage technology.

Opgenomen in opleiding(en)

European Master in Renewable Energy

School(s)

Instituut voor Engineering

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