

Vak: Sustainable Fuel Systems Design

credits: 5

Vakcode	RWVM23SFSD	Werkvormen	Onderwijs
Naam	Sustainable Fuel Systems Design	Toetsen	Assignment 1 - Opdracht
Studiejaar	2023-2024		Assignment 2 - Opdracht
ECTS credits	5		
Taal	Engels		
Coördinator	J. Bekkering		

Leeruitkomsten

By completing the module the student demonstrates knowledge and understanding of:

- E2.1.a.1. problem definition in supply chain analysis*
E2.1.b.1 critical analysis of relevant literature and empirical background materials

And is able to:

- E2.3.a.1 formulate models of energy systems, using methods and techniques for energy systems*
E2.3.d.1 select an appropriate technique for modelling given energy problems, such as Linear Programming (LP) and Mixed Integer Linear Programming techniques (MILP)
E2.3.d.2 explain the underlying assumptions and limitations
E2.4.a.1 implement these models
E1.1.c.1 systematic report research question, methods, results, discussion and conclusions

Inhoud

- Supply chain concepts: Material Flow Analysis, Life Cycle Cost of Energy
- Sustainability: concepts, Primary Energy Input Output Ratio, greenhouse gas emission saving, well-to- wheel analysis (WTT, TTW, WTW)
- Theory on LP, MILP, sensitivity analysis, Monte Carlo
- MATLAB modeling

Opgenomen in opleiding(en)

European Master in Renewable Energy

School(s)

Instituut voor Engineering

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