

Assignment student EnTranCe Energy Transition Community

Project title: Heating systems EnTranCe
Suitable for students of: <i>Multiple choices are possible</i>
<input type="radio"/> MBO <input type="radio"/> BuitenWerkPlaats Built Environment (2 nd yr, 1 block, 2 nd yr, 4 block) <input type="radio"/> Vastgoedlab V&M (3 rd yr) <input checked="" type="radio"/> Bachelor graduation assignment (4 th yr) <input checked="" type="radio"/> Bachelor internship (limited possibility in daily guidance) <input checked="" type="radio"/> Research assignment in curriculum year 2018 <input type="radio"/> Honours research assignment <input type="radio"/> Master thesis
Study Program: Mechanical Engineering
Period: Feb 2018 - Jul 2018
Language: English / Dutch
Client: Maintenance organisation EnTranCe
Internal client: Ted Wildenberg

Background (facts, situation sketch and parent/organization goals)

The EnTranCe buildings are heated using the Energy Transition Bridge (ETB). The ETB itself is heated via external experiments coupled to the ETB and fixed installed heating systems. The combination of these experiments and fixed systems is not controlled (volume and heat) and therefore the heat available for the buildings is not constant.

Problem (description of the undesirable situation)

During colder periods there is not always enough heat available on the ETB to heat all the buildings to a comfort level. Furthermore if experiments are producing heat on the ETB how do the fixed heating systems “know” that external sources are producing and if they are not producing, can they be started so they produce in case the fixed heating systems cannot produce the required amount of heat.

Objective (description of the desired situation)

There are several objectives:

- Make an overview of the available heating systems (fixed and experiments) and the required heat (supply and demand of heat).
- Analyse if the present available systems are able to produce sufficient heat. If so, what measures are necessary to balance supply and demand of heat. If not, what measures can be suggested to improve the heat production so supply and demand can be balanced.
- Handle this as a commercial project and pay special attention to the measures (impact in budget, time, space etc.).

Result deliverable/product (what is ready if the project is finished) with list of part results



Hanzehogeschool Groningen

University of Applied Sciences

A complete overview heat supply and demand. Options for matching heat supply and demand should be worked out in an operations plan. Special attention should be paid to the risk management so the operation can be performed as reliable as possible.

Competence level

3

Connected to Change Agency ETC

Multiple choices are possible

- Sustainable Building
- Sustainable Mobility
- Local Communities

Further information

Student will be working in the context Energy Transition Community at EnTranCe. You will be working in a multidisciplinary team. For detailed information on this assignment contact Ted Wildenberg (EnTranCe) t.b.c.m.wildenberg@pl.hanze.nl 050-5952478

How to respond to the vacancy

Send a motivation letter and CV to EnTranCe, Energy Transition Community, etc@org.hanze.nl Attn. Mrs. Jacqueline Josse, Office Manager EnTranCe. **Note:** If the job does not fit directly with your specific interest, please contact via etc@org.hanze.nl or 050-5954708

Website: <http://en-tran-ce.org/for-students/assignments/assignments-per-study/>