

Assignment student EnTranCe Energy Transition Community

Project title: Designing a frame to accommodate isolation an acoustic measurements
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 type="radio"/> Bachelor graduation assignment (4 th yr) <input type="radio"/> Bachelor internship (limited possibility in daily guidance) <input checked="" type="radio"/> Research assignment in curriculum year..... <input type="radio"/> Honours research assignment <input type="radio"/> Master thesis
Study Program: Civil engineering
Period: Feb 2018 - Jun 2018
Language: English / Dutch
Client: EnTranCe / BuildinG
Internal client: Ted Wildenberg

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

At BuildinG materials will be tested for their earthquake resistance. The HEAT House (Heating Equipment & Appliance Testing House) has as its main objectives the development and testing of (domestic) heating systems. Therefore it is designed for energy/heat measurements. To combine the two, (new) building materials and heat measurements, it is obvious that isolation tests on (new) building materials should be performed at the HEAT House. To accommodate that, a separation wall in the building should be equipped with a frame in which a "reference" wall could be placed or in which test walls could be build. By creating a temperature difference in both areas on either side of the separation wall, heat transmission will take place and can be measured.

Problem (description of the undesirable situation)

- At this moment the wall does not have the possibility to replace part of the wall with a wall to be tested.
- It is unclear which measurements are required for testing isolation properties.
- The frame and reference wall should be determined.
- The frame should also be prepared for another assignment regarding the design of an acoustic dead box for the determination of acoustic properties of building materials.

Objective (description of the desired situation)

A thermal neutral frame and reference wall should be designed. The design should allow easy (re)installation of the reference wall and the building of a wall to be tested. The frame should also be ready for future acoustic measurements using an acoustic dead box.



Hanzehogeschool Groningen

University of Applied Sciences

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

When ready it should be possible to determine the thermal/isolation properties of (new) building materials using two areas (inner climate room and outer climate room) and the separation wall in between.

It should also prepare the placement of an acoustic dead box for acoustic measurements.

Competence level

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 Joose, 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/>