Title: Low-cost Heusler-based Thermoelectric Materials and Systems for Energy Harvesting

Name and Affiliation:

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4-5 bullet points about the content of the talk:

- Optimisation of the thermoelectric properties of the Fe_2VAl Heusler compound
- Design of a low contact resistance brazing process for thermoelectric modules
- High temperature and thermal cycling characterisation of thermoelectric modules
- Integration of a Fe_2VAl-based thermoelectric module into a working prototype of autonomous wireless sensors for domestic heating applications.

CV of speaker (~150 words):

Geoffrey Roy holds a master's degree in Mechatronic Engineering (2010) and a PhD in Engineering (2015) from the Université catholique de Louvain (UCLouvain) where he is working as a research associate at the Institute of Mechanics, Materials and Civil Engineering (iMMC). Within the theam of Pr. Pascal J. Jacques in the division of Materials and Process Engineering (IMAP), his research is focused on the development of new thermoelectric materials and systems for a range of applications going from industrial waste heat recovery to autonomous powering of smart sensors. In his research, he pays particular attention to the development of new solutions that present improved both technical and economical profiles to facilitate the emergence of these solutions out of the lab. This research is followed by several companies from the fields of energy, materials and IoT.