Metamaterials to provide lightweight NVH solutions: realisation through thermoforming

Results from the Flanders Make research project “Integration and manufacturability aspects of lightweight structures exploiting inherent dynamic properties”

Thursday, 28 September 2017

12h00  Sandwich Lunch

13h00  Introduction
Claus Claeys, Project Manager, Flanders Make/KU Leuven

13h15  Thermoforming and acoustic challenges for harvesters
Steven Meyns, Business Unit Manager Acoustics, Vitalo

We will explain the production process and advantages of thermoforming and address the current acoustic challenges when designing panels for harvesters.

13h40  Metamaterials as light compact NVH solution
Claus Claeys, Project Manager, Flanders Make/KU Leuven

We will discuss the rationale behind and the design process of metamaterials and highlight the differences between metamaterials and traditional vibro-acoustic solutions.

14h05  Production of metamaterials through thermoforming
Noé GR Melo Filho, PhD Researcher, Flanders Make/KU Leuven

The design concept of metamaterials will be applied to the thermoforming process. We will discuss the results of a plate produced in collaboration with Vitalo.

14h30  Wrap-up & Conclusions
Claus Claeys, Project Manager, Flanders Make/KU Leuven

14h45  Q&A

15h00  Coffee Break