Marie Skłodowska-Curie
Early Stage Researcher - PhD position

at the Prof.K.Barsauskas Ultrasound Research Institute
Kaunas University of Technology, Lithuania,
in the frame of the Marie Skłodowska-Curie European Training Network:

"NDTonAIR: Training Network in Non-Destructive Testing and Structural Health Monitoring of Aircraft structures"
EU call: H2020-MSCA-ITN-2016 - www.ndtonair.eu

Title of the ESR-PhD Research Project: Guided-wave inspection of aerospace components using contactless measurements

Abstract: A contactless ultrasonic inspection technique is one of the mostly preferable as it can be easier automated and more fast. On the other hand the guided waves are preferable when large components need to be inspected. The project aims are : (1) to investigate possibilities of application of laser interferometry for imaging of ultrasonic guided waves in composite plates; (2) to investigate possibilities of the air-coupled ultrasonic methods and laser interferometry for detection of defects in composite laminates; (3) to carry out experiments on different types of composite plates estimating sensitivity, accuracy and resolution of defects detection; (4) to develop algorithms of ultrasonic tomography suitable for dispersive guided waves

Expected results: (1) Contactless ultrasonic technique for inspection of composite aerospace components; (2) data processing algorithms based on the tomography of ultrasonic guided waves enabling visualize and characterize defects; (3) estimation of sensitivity, accuracy and resolution of defects detection and time required for the inspection, sensitivity to surface conditions and other parameters of laminate and defect.

Job description and eligibility Criteria: The research topic is in the field of ultrasonic measurements and non-destructive testing, a background in acoustic, electrical and electronic engineering is requested. Additional skills in signal and data processing using MATLAB as well capability to work with data acquisition systems are desirable. Appropriate competencies in English speaking and writing are mandatory. The research activity will be performed in the Prof. K. Baršauskas Ultrasound Research Institute of Kaunas University of Technology. The research activity can be used as preparation for a PhD study.

In addition, the successful candidate should satisfy at the time of the recruitment the following mandatory characteristics:

- having not more than 4 years of equivalent research experience (i.e. working as researcher after obtaining your master's degree);
- having not been awarded a title of PhD;
- having not resided or carried out her/his main activity in Lithuania; for more than 24 months in the last 3 years.

Starting Date: latest 1st November 2019 **Duration:** 11 months
Deadline for the application: 8th September 2019
Salary:

1. Living allowance € 27280.92/annually
2. Mobility allowance € 7.200,00/annually
3. Family allowance € 3.000,00/annually.

For more info about salary calculation, the requisites for Family allowance and more details on the employment conditions, please see the founding body rules:
http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-msca_en.pdf

Contact: Prof. dr. Elena Jasiūnienė (elena.jasiuniene@ktu.lt)
Ultrasound Research Institute, Kaunas University of Technology, Lithuania