9th ICEEE – 2018 International Conference on
"Climatic Change and Environmental (Bio) Engineering"
22nd - 24th of November, 2018
Budapest, Hungary

MEASURING ACOUSTIC PROPERTIES OF MATERIALS WITH A MICROFLOWN SENSOR

Miroslav Badida, Tibor Dzuro, Anna Badidová, Marek Moravec, Lýdia Sobotová, Alžbeta Nováková

Technical University of Košice, Košice, Slovakia

The issue of noise as an aggravating factor is often a topic to be discussed. This is a consequence of the growth of the human population, coupled with economic growth and the intensive use of sound-generating devices (noise). The paper deals with the use of the Microflown acoustic sensor to research the acoustic properties of materials both indoors and outdoors. It uses its ability to measure reflectivity, absorption or acoustic impedance over a few minutes, broadband, perpendicular to material or at any angle. The practical use of Microflown technology is presented in the measurement of the sound absorption coefficient of materials. The contribution is supported by project APVV - 0327 -15, Development and research of methodologies for optimizing acoustic properties and acoustic quality of noise emitting devices.

Keywords: *acoustic, noise, microflown, particle velocity*

Corresponding address:
Prof. Dr. Miroslav Badida
Department of Process and Environmental Engineering
Faculty of mechanical engineering
Technical university of Košice
Park Komenského 5, 042 00
Košice, Slovakia
Telephone/mobile: +421(55)6022716
E-mail: miroslav.badida@tuke.sk