World Academy of Science, Engineering and Technology International Journal of Aerospace and Mechanical Engineering Vol:9, No:07, 2015

Composite Components Manufacturing in SAE Formula Student, a Case Study of AGH Racing

Authors: Hanna Faron, Wojciech Marcinkowski, Daniel Prusak, Władysław Hamiga

Abstract: Interest in composite materials comes out of two basic premises: their supreme mechanical and strength properties, combined with a small specific weight. Origin and evolution of modern composite materials bonds with development of manufacturing of synthetic fibers, which have begun during Second World War. Main condition to achieve intended properties of composite materials is proper bonding of reinforcing layer with appropriate adhesive in manufacturing process. It is one of the fundamental quality evaluation criterion of fabrication processes.

Keywords: SAE, formula student, composite materials, carbon fiber, Aramid fiber, hot wire cutter

Conference Title: ICMAAE 2015: International Conference on Mechanical, Aeronautical and Automotive Engineering

Conference Location: Singapore, Singapore

Conference Dates: July 04-05, 2015