

## DEVELOPING FATIGUE TEST MACHINE FOR COMPOSITE MATERIALS

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### **ABSTRACT**

This paper's goal is to introduce the third step of the EFOP-3.6.1-16-2016-00014. project on the Faculty of Engineering, University of Szeged. In this period the production technology of composite material was chosen and a fatigue test machine was developed and tested. The paper shortly describes the composite materials and summarizes the theory of fatigue than it presents the process of the development with several prototypes of fatigue test machine, some of which were manufactured and tested. Initially a shaker played the key role in the first two conceptions and finally a crank mechanism became as the best solution. The main solved problems during the development were selection of bearings and solving the partly dynamic balancing of the moving parts.

*Keywords: plastic composites, fatigue test machine, dynamic balancing*