

# **Mechanical properties and fracture behaviour of coconut fibre-based green composites**

## **[Proprietățile mecanice și comportamentul la rupere al unor compozite cu conținut de fibre de cocos]**

### **Abstract**

This paper presents the influence of natural fibre content on the mechanical properties of coconut fibre based-green composites. The mixture ratio of cement:sand by weight was fixed at 1:1. Coconut fibre was used as reinforcement and added to cement matrix to replace the sand composition. Cement matrix was reinforced with 3wt. %, 6wt. % and 9wt. % of coconut fibre by mixing and curing process. Composites were cured in water for 7, 14, and 28 days. It was observed that the composite reinforced with 9wt. % of coconut fibre demonstrated the highest strength of modulus of rupture and compressive strength.