Application of reverse engineering for automotive plastic components – case study

I. Tamașag[1,*], I. Beșliu[1], D. Amarandei[1]
Ștefan cel Mare University, Department of Mechanics and Technologies, 13 University Street, Suceava, Romania, 720229 (Zip code)

Keywords. (reverse engineering, scanning, point cloud, automotive plastic components).

Abstract.
With the advancement of technology and the widespread acceptance of the concept of reverse engineering, the possibility of reproducing objects whose specifications are unknown is becoming an easier task. Industrial practice offers many reverse engineering methods, but they are not always applied in an optimal way. This article presents a case study involving the application of reverse engineering technology on plastics with complex part surfaces used in the automotive industry. The aim of the paper is to present a step-by-step reverse engineering method, starting from the creation of the point cloud obtained after the scanning of the parts surfaces (using a 7.5 axis portable measuring arm with line scanner) to the reproduction of the physical part.