

## Cloud Points to Create an Innovative and Custom Ankle Foot Orthosis in CAD Environment

**Authors :** Y. Benabid, K. Benfriha, V. Rieuf, J. F. Omhover

**Abstract :** This paper describes an approach to create custom concepts for innovative products; this approach describes relations between innovation tools and Computer Aided Design environment (use creativity session and design tools). A model for the design process is proposed and explored in order to describe the power tool used to create and ameliorate an innovative product all based upon a range of data (cloud points) in this study. Comparison between traditional method and innovative method we help to generate and put forward a new model of the design process in order to create a custom Ankle Foot Orthosis (AFO) in a CAD environment in order to ameliorate and controlling the motion. The custom concept needs big development in different environments; the relation between these environments is described. The results can help the surgeons in the upstream treatment phases. CAD models can be applied and accepted by professionals in the design and manufacture systems. This development is based on the anatomy of the population of North Africa.

**Keywords :** ankle foot orthosis, CAD, reverse engineering, sketch

**Conference Title :** ICCB 2015 : International Conference on Computational Biomechanics

**Conference Location :** Istanbul, Türkiye

**Conference Dates :** May 21-22, 2015