

## HOLISTIC APPROACH ON INTEGRATED, COLLABORATIVE PRODUCT DESIGN

**Felicia Banciu<sup>1</sup>, George Draghici<sup>1</sup> & Cristian Gheorghe Turc<sup>1</sup>**

<sup>1</sup>Politehnica' University of Timisoara, Integrated Engineering Research Centre

Corresponding author: Banciu Felicia, fbanciu@eng.upt.ro

**Abstract:** The product design, as a whole, is seen like a dynamic process in a continuous changing, a process that can be permanently improved. The design process is based on different design models, methods and tools. Our research aims are to develop a methodology and to build an integrated, collaborative product design platform. We propose a holistic model, combining Pahl and Beitz's systematic model (based on design phases) and Nam Suh's axiomatic design model (based on design domains). The corroboration of these two models is realized through an algorithm that integrates the used design methods and tools, using a design for six sigma approach and finally it is proposed the integrated collaborative product design platform.

**Key words:** design, systematic, axiomatic, holistic, collaborative, platform.