World Academy of Science, Engineering and Technology International Journal of Industrial and Manufacturing Engineering Vol:9, No:05, 2015

## Augmented Reality as Enhancer of the Lean Philosophy: An Exploratory Study

Authors: P. Gil, F. Charrua-Santos, A. A. Baptista, S. Azevedo, A. Espirito-Santo, J. Páscoa

**Abstract :** Lean manufacturing is a philosophy of industrial management that aims to identify and eliminate any waste that exists in the companies. The augmented reality is a new technology that stills being developed in terms of software and hardware. This technology consists of an image capture device, a device for data processing and an image visualization equipment to visualize collected and processed images. It is characterized by being a technology that merges the reality with the virtual environment, so there is an instantaneous interaction between the two environments. The present work intends to demonstrate that the use of the augmented reality will contribute to improve some tools and methods used in Lean manufacturing philosophy. Through several examples of application in industry it will be demonstrated that the technological impact of the augmented reality on the Lean Manufacturing philosophy contribute to added value improvements.

Keywords: lean manufacturing, augmented reality, case studies, value

Conference Title: ICMIE 2015: International Conference on Mechatronics, Manufacturing and Industrial Engineering

**Conference Location :** Amsterdam, Netherlands

Conference Dates: May 14-15, 2015