Proceedings of the 8th Annual World Conference
of the Society for Industrial and Systems Engineering,
Baltimore, MD, USA
October 17-18, 2019

Proposal to Redesign a Process Flow Through the Use of Augmented Reality

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Abstract: With the incursion of Industry 4.0 several concepts have grown popularity and have evidently worked. In the area of engineering design, two concepts that have taken great importance are virtual reality and augmented reality; both concepts that in the beginning were linked with video games and leisure, today are a necessary tool to provide robust proposals in the design area. Evidently both concepts are supported for CAD software engineering, as is AutoCAD and in this case Google SketchUp; both tools allow us to visualize design proposals made by students to businesses in Monterrey's metropolitan area, generating a high impact in the tools to carry on with the proposed. To help CAD software's that deliver virtual reality, we used HP Reveal to incorporate the augmented reality and strengthen the weight of our proposal in the exposition for the improvement of the business. This proposal is parts of its final Project of the learning unit of "Design of facilities and material handling systems", that pretends to guarantee that the students of the Industrial Engineer Administrator obtain the competence to design a process that satisfies the proposed requirements within realistic restrictions, for example, in the health and safety aspects, of manufacturing capacity and sustainability. Besides acquiring the previously mentioned competence, the students are adapting the basic knowledge an Industrial Engineer must have for all the new technologies.

Keywords: Virtual Reality, Augmented Reality, Engineering's Design