ENGINEERING TEACHING: SIMULATION, INDUSTRY 4.0 AND BIG DATA

Jesús Silva, Mercedes Gaitán, Noel Varela, Omar Bonerge Pineda Lezama

Abstract

In the educational field, there is a paradigm shift, where the focus is on the student and his active role in the training process, and where there is a turn that involves moving from content teaching to the training of competences. This necessarily requires higher education institutions to articulate innovation processes that involve the entire academic community. On the other hand, in the current context of technological development and innovation, companies, particularly manufacturing companies, are committed to reviewing and adapting their processes to what has been called Industry 4.0, a circumstance that entails the need to require new professional profiles that have competencies not only technological, but fundamentally those that will allow them to be competitive in a world where technology is renewed at an ever-increasing speed. The work presents implementation of innovation strategies in the teaching methodology from the integration of simulation software under the educational format of Problem-Based Teaching, which on the one hand aims to develop various competencies increase levels of motivation and satisfaction.

Keywords

Innovation, Simulation, Teaching, Engineering, Big data