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Utilizing factory modeling and simulation and the current challenges

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Over the past couple of decades, modeling and simulation as a tool for aiding in the optimization and reengineering of systems has become increasingly popular and more widely used. In an attempt to evaluate the current standing of modeling and simulation, this paper will discuss the applications of this indispensable analysis and reengineering tool in recent years. Furthermore, this paper will identify how effective modeling and simulations was, what limitations or setbacks were encountered, and what results were accomplished by the use of modeling and simulation in the study. This paper will then provide and insight as to what problems have been solved about modeling and simulation, and which problems still need to be addressed about this powerful reengineering tool.

Biography

Tariq Tashtoush is a Visiting Assistant Professor of Systems Engineering in Texas A&M International University (TAMIU), Laredo, TX. He got his PhD and MS degrees in Systems and Industrial Engineering from State University of New York at Binghamton on 2013 and 2009, respectively and his BS in Electromechanical (Mechatronics) Engineering for Jordan University of Science and Technology (JUST), Irbid, Jordan on 2005. Throughout his working experience and formal education in multidiscipline of engineering, he acquired a sound knowledge and experience of leading edge engineering principles, tools and practices in the field of simulation and systems design, production quality and management, lean manufacturing principles, robotics and automation, 3D printing processes, engineering statistical analysis, project management, optimization, instruments and electrical devices, reliability, Healthcare Systems, and Human Factors. He is Lean Six-Sigma Black Belt certified, he worked at Continental Automation Systems where he implemented Lean manufacturing and Six-Sigma principles, machine production control, preventive maintenance scheduling, and quality monitoring to reduce non-added value actions and increase productivity and the production lines' throughput. His research interests lie in the area of systems designs and optimization, production quality, electronics manufacturing, electronics reliability and robotics.

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