

Expanding Industrial Thinking by Formalizing the Industrial Engineering Identity for the Knowledge Era

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Synopsis

To date, the formal identity of the Industrial Engineer remains vague. Due to the broad knowledge base and application areas made available to Industrial Engineers, pinning down the commonality has proven difficult. This problem is further magnified by global forces shaping the knowledge era. Various works touch on some elements that can help in forming an identity (such as IE skills, work preferences, thinking styles...etc) but they have not been combined into a common identity. To do so is no easy task but for the sake of the field it must be done. There is no doubt that IE knowledge is valuable and has proven itself, but employers rarely hire a person with the title Industrial Engineer (rather it is process engineer, supply chain manager...etc). Defining this brand and identity can massively improve awareness about the field itself, create a resource to refer students to and help develop new application areas for industrial thinking and modernization of industrial methods. A modern understanding of the role of the Industrial Engineer can be established (namely that they are the connection to all fields of knowledge and a master of some) by developing an Industrial Engineering Identity and exemplifying the industrial thinking style by means of case studies on facing or shaping disruptive forces on the knowledge era. The research presentation shows that the key requirements for the dissertation are the development of an Industrial Engineering identity, the definition of the unique features of Industrial thinking and the demonstrate the value gained by designing artefacts with this new identity in mind.