AN INDUSTRIAL IOT IN ENGINEERING AND MANUFACTURING INDUSTRIES – BENEFITS AND CHALLENGES

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ABSTRACT

Industry 4.0 is the promising area of the industrial revolution and fast-growing network of digitally connected smart devices, equipment/machines and physical objects. It denotes the use of Industrial Internet of Things (IIoT) in manufacturing. Industrialists and Manufacturers are already taking part in this transformation by integrating both new and existing Information and Operational Technologies (IT & OT). IIoT is fairly a new concept for industries, and it is presenting a huge opportunity in helping enterprises to operate more safely and productively while improving efficiency and reducing costs. The study was conducted to explore the benefits of IIoT in engineering and manufacturing industries, to analyse the various challenges on IIoT and to identify the ways to overcome the challenges of IIoT. This paper analyses how IIoT strategy facilitates to increase customer value, creates different opportunities for competitive advantage, and transform the business process to increase profit in industries. Secondary data was collected from web sources and journals to identify the benefits and challenges on the implementation of IIoT. Interviews with industry experts were conducted during October 2018 to obtain their opinion towards employment of IoT and IIoT technology in the engineering industries. As this paper concentrates only on bringing out the possibilities of implementing IIoT in engineering and manufacturing industries, this study is basically done as an exploratory research.

KEYWORDS: Benefits, Challenges, Engineering, Internet of Things, Industrial Internet of Things, IoT, IIoT, Industry Revolution, I4.0, Manufacturing & Technology

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