

Human Factors and Ergonomics in Manufacturing in the Industry

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Abstract: *Manufacturing industries have experienced rapid technological advancement and growth as a result of the Industry 4.0 revolution. Changes in human work and efficient manufacturing processes brought about by technological advancement may pose new threats to employee well-being and test existing knowledge and skills. The scientific field of human factors and ergonomics (HF/E) aims to simultaneously improve both the overall performance of the system and the well-being of employees in a variety of workplace settings. The purpose of this scoping review is to provide an overview of the most recent HF/E research on the manufacturing industry 4.0 context. 37 of the 336 research articles were analyzed with the help of a human-centric work system framework from the HF/E literature. In micro- and macro ergonomics work system frameworks, difficulties arising from technological advancement were examined. To optimize overall sociotechnical work system performance in the context of rapid technological development in manufacturing industries, we frame characteristics of an organization level maturity model on the basis of the review.*

Keywords: Manufacturing industries

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