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Innovation and Competitiveness in Industry 4.0 Based on Intelligent Systems

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Emotional Diagnosis for Employees Within the Framework of Industry 4.0: A Case Study in Ciudad Juarez

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1 Introduction

Technology, society, economics, and many other aspects transform synergistically over time. Furthermore, few changes have such a profound impact on the preceding categories as industrial revolutions. The current industrial revolution has demonstrated how different modes of production and services can and will affect society on all levels, from the mass paradigm shift to an individual's adaptability. Due to the sheer importance of Industry 4.0, it is merely logical that there will be a plethora of consequences and ramifications of its implementation. Technology in all its areas of application has proven to develop along with the demand for entertainment, manufacturing production, war effort, etc. [1]. These demands often catalyze such technological innovations. As a result, the technology that underpins Industry 4.0 behaves similarly, initially changing and evolving in response to industrial requirements before progressing in response to social and legislative demands [2].

Based on the previous idea, it is frequently stated that new technological advancements provide a common social innovation order on the working and educational framework, which is a refocus of working skills [3]. Many demands on workers and students are shifting to learning and managing digital technologies instead of more traditional ones. Abilities like advanced programming and data analysis are starting to outshine the classic techniques and tacit knowledge required by manufacturing, service, and digital companies. Given that the workload in a traditional industry can already cause a hefty amount of acute stress (a typical non-long-lasting type of stress) within the workers, when adding such acute stress

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