"EMOTIONAL INTELLIGENCE FOR COGNITIVE INTERNET OF THINGS BASED

SMART ENVIRONMENTS"

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Abstract

In today's extravagant era, the capacity to perceive feeling is one of the signs of passionate insight, a part of human knowledge that has been contended to be significantly more imperative than scientific and verbal intelligences. Due to gradual enrichment in IoT technology for smart environment level, Technology disruptions and degradation of performance in the industries, workers have lost their interest or concentration in work activity and have also lost their focus or performance in the working environment. In addition, despite the rapid growth of IoT, In the field of modern intelligent service, the current IoT based systems significantly lacks cognitive intelligence this implies cannot fulfill the requirements for industrial services.

Deep learning is become one of the most popular technique that takes place in many machine learning related applications and studies. While it is put in the practice mostly on content based image retrieval, there is still room for improvement by employing it in diverse computer vision applications. As per the rigorous theoretical and practical analysis, it has been found that an immediate need to address this issue by developing an emotional intelligent approach, Machine learning (deep learning, CIoT), which will mentor and counsel workers by monitoring their behavior in the work environments.

In this study, we aimed to construct a CNN model based emotional intelligence System (EIS), in order to automatically classify expressions presented in Facial Expression Recognition (FER2013) and kaggel image database. Our presented model achieved % 81.1, success rate on FER2013 database.

Keywords: Deep Learning, Emotional Intelligence, Facial Expression Recognition, Image Classification Prediction, Convolution Neural Networks.