Title:

The Evolution of Ergonomics Risk Assessment Method to Prevent Work-Related Musculoskeletal Disorders (WMSDS)

Journal:

International journal of online and biomedical engineering, Volume 18, Issue 8, 2022.

Document Type:

Article

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Full text link:

Publisher : https://www.researchgate.net/publication/361609543_The_Evolution_of_Ergonomics_Risk_ Assessment_Method_to_Prevent_Work-Related_Musculoskeletal_Disorders_WMSDS

Scopus preview:

https://www.scopus.com/record/display.uri?eid=2-s2.0-85133336821&doi=10.3991%2fijoe.v18i08.31313&origin=inward&txGid=2d6d3038dd44e182 74eb2d1742281743

Abstract:

In the last few decades, numerous of ergonomics risk assessment method was developed. These method was developed to prevent work-related musculoskeletal disorders or WMSDs among the workers. Although there is variety of methods was available to identify the present of WMSDs but the accuracy of the measurements is based on the methods applications and limitations. Due to the complexity of factors such as inhomogeneity of the working activities, the sophisticated of measurement process, the diversity of cultures, incapable to accesses various body posture, and others problem that remain unsolved, the evolution of ergonomics risk assessment methods was never ended. To react with the demanding related with the WMSDs problems, ergonomics risk assessment methods become more advance in technologies. Parallel with the upcoming challenges of industry revolution 4.0, ergonomics risk assessment methods need to be transformed and adapted with the advance technologybased methods. The industries already to step ahead and starting to represent their production activities using robotics technologies, artificial intelligence (AI), biotechnology, and supercomputer technologies. Therefore, ergonomics committee and practitioner should realize the opportunities and developed new ergonomics risk assessment method that integrated with the technologies. They need to be more accessible, understood, visionary, and modernize. The evolution of ergonomics risk assessment methods must be continuing and not rely with the traditional approach only