

Extract of the paper “Based-on simulation training on ventilation calculation for the reduction of occupational risk of SARS-CoV-2 infection”

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Abstract

This article addresses a new learning methodological approach compatible with e-learning and m-learning for undergraduate engineering students to learn the ventilation requirements for the prevention of SARS-CoV-2 virus infection in the workplace and to develop the critical sense to design ventilation systems in accordance with the standards that minimize the biological risk. Thus, a learning activity based on a simulation of infection risks is proposed in which three different initial ventilation requirements hypotheses are considered to calculate the necessary ventilation in the workplace. Subsequently, a simulation is carried out to obtain the probability of contagion in each of them and, in this way, to obtain information to make adequate decisions and improve critical thinking in the context of industrial hygiene.

Citation

M. Rodríguez-Martín, A. Benito Rodríguez, L. Aguado Ferreira, P. Rodríguez-González. 2021. Based-on simulation training on ventilation calculation for the reduction of occupational risk of SARS-CoV-2 infection. In *Ninth International Conference on Technological Ecosystems for Enhancing Multiculturality (TEEM'21)*. Association for Computing Machinery, New York, NY, USA, 406–410. DOI: <https://doi.org/10.1145/3486011.3486479>

Keywords

Higher education; Covid-19; Safety

Link to the publisher

<https://dl.acm.org/doi/10.1145/3486011.3486479>

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