

Forecasting of Scaffolding Work Comfort Parameters Based on Data from Meteorological Stations

Authors : I. Szer, J. Szer, M. Pieńko, A. Robak, P. Jamińska-Gadomska

Abstract : Work at height, such as construction works on scaffoldings, is associated with a considerable risk. Scaffolding workers are usually exposed to changing weather conditions what can additionally increase the risk of dangerous situations. Therefore, it is very important to foresee the risk of adverse conditions to which the worker may be exposed. The data from meteorological stations may be used to asses this risk. However, the dependency between weather conditions on a scaffolding and in the vicinity of meteorological station, should be determined. The paper presents an analysis of two selected environmental parameters which have influence on the behavior of workers – air temperature and wind speed. Measurements of these parameters were made between April and November of 2016 on ten scaffoldings located in different parts of Poland. They were compared with the results taken from the meteorological stations located closest to the studied scaffolding. The results gathered from the construction sites and meteorological stations were not the same, but statistical analyses have shown that they were correlated.

Keywords : scaffolding, health and safety at work, temperature, wind velocity

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