ABSTRACT

The current assessment of the risk of exposure to occupational noise depends basically on the results of the measurement of noise in the areas and the time of exposure to it by the workers, with this data the risk of exposure is obtained. The present work proposes a method of evaluation of noise exposure based on Fuzzy Logic.

The evaluation of noise under this method, the investigation and selection of input and output variables, Fuzzification methods, fuzzy rules, diffuse inference method and Defuzzification. The proposed method considers the factors such as sound pressure level, attenuation offered by the hearing protector, number of people in the area and exposure time., the Mamdani diffuse inference method has been used. The suggested method is possible to evaluate cases to assess the risk of exposure to noise. The results of the fuzzy logic evaluation are more useful and flexible for the analysis than the conventional evaluation