

ABSTRACT

The worker's performance is affected by a couple of factors. One of them is the mood in the room, it has to be comfortable for the worker. To meet this comfortable condition, there are several factors: the size of the room, the temperature of the room, and the level of noise in the room.

Noise means any unwanted sounds. Noise, based on their effects to human being, can be classified to three types: irritating noise, masking noise, and damaging noise. Technically, noise control can be classified to three aspects, and that is noise control on it's source, noise control on it's propagation medium, and noise control on human. National Institute for Occupational Safety and Health (NIOSH) and Indonesia have stated that the limit of the noise level at the office room is 85 dBA. If the limit is passed continuously for a long time, it may cause noise induced hearing loss to the people who works in that office.

In this experiment, noise detection system that can detect and classified the noise at the same time will be made. The type of noise that will be detected and classified is steady state wide band noise, intermittent noise, and explosive noise.

Keyword: comfortable, noise, detection