



## Investigation of Noise Pollution in Khalkhal Town in winter and Summer Using Analysis of Statistical Data

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**Original Article:**

*Received 05 May. 2016 Accepted 15 May. 2016 Published 17 June. 2016*

### ABSTRACT

Noise pollution in cities is one of the important environmental issues which causes harmful effects such as hearing loss, sleep disorder, hypertension and gastrointestinal complaints in people of cities. To prevent these effects and access to recommended standards, measuring noise pollution in cities is necessary. This study aims to identify amount of noise pollution in geographical arena of Khalkhal Town. Using sound maps, in 22 stations with regular 500 m distances in systematic random sampling, measuring were done in time slots of morning and evening in winter 2014 and summer 2015 through 450 cell hydrophone. Results indicated that noise pollution in Khalkhal Town is higher than standard in day according to Iran's Environment Standard in days (50 db) with average of 52/4313 db. Also, results of t-test at night (Iran's Environment Standard = 45 db) indicated that average of noise pollution in Khalkhal City (48/8370 db) is higher than standard limit.

**Keyword:**

Noise pollution,  
Khalkhal Town,  
Statistical data

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