

ANALYSIS AND MODELING OF ROAD TRAFFIC NOISE IN EGYPT

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Abstract

In many countries, road traffic is the most widespread sources of noise and it is most prevalent cause of a This study investigates noise levels for some roads (divided and undivided) starting from kafr El-Sheikh City study. Also, the study purpose is to develop models, which could be applied for effective predicting of the noise level. Using simple analysis, different models were derived to describe the relationship between the traffic characteristics independent variables and noise level as a dependent variable. Multiple regression analysis was also utilized to consider the combined effect of these variables on noise level. The analysis of the obtained results revealed that all recorded noise levels in all places of different roads are much more than the permissible limits according to Egyptian law of environmental and world organizations limits. In addition, traffic volume and running speed affect the noise level. Whereas traffic volume only decreases the noise level in undivided roads