Abstract

This study aims to address intersections of high-density fire zones with the most traveled roads in Karaj city during peak traffic hours. These zones and roads have been identified through collection of field data and desk research. Then resulting map of two areas, i.e. the most travelled roads and high-density fire zones were superposed and the intersection was obtained that represents the high-risk region. As result, in order to mitigate and prevent future financial losses and mortalities in this region, the recommendations are made with regard to traffic method, and requirements of rule of law to prevent fire incidents and their expansion in available places on the region. The neural network model was used to predict degree of losses. The results suggest that this network predicts the event with accuracy of 0.9938.

References

1. Alireza Sarvari Sayyed, Majid Mazinani, A new tunnel fire detection and suppression system based on camera image processing and water mist jet fans, heliyon, Volume 5, Issue 6,
June 2019, e01879.


5. ZhiguoYan, YuxinZhang, QingchaoGuo, HehuaZhu, YiShen, QinghuaGuo, Numerical study on the smoke control using point extraction strategy in a large cross-section tunnel in fire, Tunnelling and Underground Space Technology, Volume 82, December 2018, Pages 455-467.


**Index Terms**

Computer Science  
Information Sciences

**Keywords**

Matlab, Traffic, Fire incidents, Golden time