

## Statistical Analysis to Select Evacuation Route

**Authors :** Zaky Musyarof, Dwi Yono Sutarto, Dwima Rindy Atika, R. B. Fajriya Hakim

**Abstract :** Each country should be responsible for the safety of people, especially responsible for the safety of people living in disaster-prone areas. One of those services is provides evacuation route for them. But all this time, the selection of evacuation route is seem doesn't well organized, it could be seen that when a disaster happen, there will be many accumulation of people on the steps of evacuation route. That condition is dangerous to people because hampers evacuation process. By some methods in Statistical analysis, author tries to give a suggestion how to prepare evacuation route which is organized and based on people habit. Those methods are association rules, sequential pattern mining, hierarchical cluster analysis and fuzzy logic.

**Keywords :** association rules, sequential pattern mining, cluster analysis, fuzzy logic, evacuation route

**Conference Title :** ICMSEA 2015 : International Conference on Mathematical Sciences, Engineering and Applications

**Conference Location :** Singapore, Singapore

**Conference Dates :** March 29-30, 2015