World Academy of Science, Engineering and Technology
International Journal of Health and Medical Engineering
Vol:11, No:11, 2017

Rescue Emergency Drone for Fast Response to Medical Emergencies Due to Traffic Accidents

Authors : Anders S. Kristensen, Dewan Ahsan, Saqib Mehmood, Shakeel Ahmed

Abstract : Traffic accidents are a result of the convergence of hazards, malfunctioning of vehicles and human negligence that have adverse economic and health impacts and effects. Unfortunately, avoiding them completely is very difficult, but with quick response to rescue and first aid, the mortality rate of inflicted persons can be reduced significantly. Smart and innovative technologies can play a pivotal role to respond faster to traffic crash emergencies comparing conventional means of transportation. For instance, Rescue Emergency Drone (RED) can provide faster and real-time crash site risk assessment to emergency medical services, thereby helping them to quickly and accurately assess a situation, dispatch the right equipment and assist bystanders to treat inflicted person properly. To conduct a research in this regard, the case of a traffic roundabout that is prone to frequent traffic accidents on the outskirts of Esbjerg, a town located on western coast of Denmark is hypothetically considered. Along with manual calculations, Emergency Disaster Management Simulation (EDMSIM) has been used to verify the response time of RED from a fire station of the town to the presumed crash site. The results of the study demonstrate the robustness of RED into emergency services to help save lives.

Keywords : automated external defibrillator, medical emergency, response time, unmanned aerial system
Conference Title : ICHEMEP 2017 : International Conference on Healthcare Emergency Management and Emergency Preparedness
Conference Location : London, United Kingdom
Conference Dates : November 23-24, 2017