

Smart Triage system for Patient Assignment after Disaster

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Abstract: *The design and implementation of a system to automate patient handling and assignment to hospitals in mass disasters involving a large number of injured victims over a wireless network. In addition, the previously developed MEDTOC system is modified and enhanced to include location-aware features at the disaster site, as well as quick classification and assignment of patients to nearby hospitals. Patients are prioritized for medical care through a triage process. Manual systems allow for inconsistency and error. It proposes a novel system to automate accident and emergency centre triage and uses this triage score along with an artificial intelligence estimate of patient-doctor time to optimize the queue order. The optimal queue order is found using a novel procedure based on genetic algorithms. These components are integrated in a simple graphical user interface. Live tests could not be performed but simulations reveal that the average waiting time can be reduced by 48 minutes and priority is given to urgent patients. It is expected that chaotic mass-disaster situations can be more suitably controlled and stabilized by using the techniques from this project thus, saving more lives.*

Keywords: Mass disaster, Location aware, triage, disaster site.

