EmSafe: Further Improving the Emergency Call Service and the Development of Digital Emergency Management Infrastructure for Industrial, Event, and Public Use

Kumar, Rahul (School: Brisbane Grammar School)

Despite the improvements made to the Emergency Call Service by the original EmSafe Project, numerous issues have been found that impact the safety and security of people around the world. Emergency Management systems for public spaces and events are severely lacking and do not provide information in an easily understandable or accessible way. Further, GPS based systems have proven inaccurate when used indoors, impacting the ability for event and public space emergency response teams, as well as state-run Emergency Services to provide support when they cannot find the people they have been tasked with helping. Further, fly-in fly out workers in various fields have had difficulty accessing location specific emergency management information, which is often only shared in an inaccessible email or during onboarding training. This lacklustre approach to sharing this crucial information results in several preventable mining deaths each year in Australia alone. To resolve these issues, the EmSafe project was updated and two new pieces of software were developed. EmSafe Beacons were developed to allow for highly accurate, scenario specific responses to emergencies that occur in public spaces. This software can work on all devices and uses physical stickers to determine the location of a user inside a building. EmSafe for Industry was developed to support fly-in fly-out workers and provide them with location-specific emergency management information. This software can run with or without GPS support, ensuring workers anywhere in the world can access jobsite specific information. This research and development can enhance emergency response tactics for public spaces, events, job sites, and Emergency Service systems worldwide.

Awards Won:
Fourth Award of $500