6COSC023W – Final Project Report

FireEvac – Emergency fire evacuation management system for small and medium enterprises in Sri Lanka

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Abstract

A fire evacuation plan is a plan that outlines the procedures for safely evacuating people from a building in the event of a fire. It is an important aspect of fire safety management, as it helps to ensure that people can safely evacuate a building and get to a safe place in the event of a fire. a fire evacuation plan is an important tool for ensuring the safety of people in a building in the event of a fire. It should include designated evacuation routes, assembly points, an emergency notification system, training and drills, and clear responsibilities for building management and employees.

The purpose and the aim of this project are to analyze the factors affecting the inefficiency of the traditional fire evacuation system in Sri Lankan small and medium-sized enterprises and to design, develop, test, and evaluate an application that would let the firemen access occupant locations easily, and automate assembly point headcount.

The author conducted a pilot study among a sample group of people and a literature review on the topic of fire evacuation management to learn the current problems and gaps which has been raised and the methods to solve them. The pilot study was conducted among a group of 30 people and many of them stated that occupants find it hard to evacuate at a fire emergency situation, whereas 66.7% responders have stated that stressed crowds make it the most hardest to evacuate out of the emergency case. Moreover, 86.7% of the responders are not aware of the procedures that need to be done at the assemble point. The responders have also mentioned that many number of companies or universities have never conducted fire drills at their premises.

To address the current problems the author is proposing FireEvac, an emergency fire evacuation guidance, and management system.