

Busakorn Saensookh 2010: Means of Egress Analysis and Evacuation Time Calculation by Using Hydraulic Analogy for the New Mechanical Engineering Building, Kasetsart University. Master of Engineering (Fire Protection Engineering), Major Field: Fire Protection Engineering, Interdisciplinary Graduate Program. Thesis Advisor: Assistant Professor Nathasak Boonmee, Ph.D. 165 pages.

This research performs means of egress analysis and calculates an evacuation time for the new 6-story Mechanical Engineering Building, Kasetsart University by hydraulic analogy method. The analysis follows the building control act B.E. 2522 of Thailand and the NFPA 101 Life Safety Code Edition 2006. The study considers major factors that effect building fire evacuation including: occupant load, number of exits, travel distance, common path of travel, effective widths of means of egress components, and building fire compartment.

The study found that the building evacuation time is approximately 9 minutes if use the appropriated egress routes suggesting in this research. The results from this study can use as a database to improve the building fire egress system.

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Thesis Advisor's signature