

Seismic vulnerability assessment in Kota Kinabalu, Sabah

ABSTRACT

Sabah has witnessed an increasingly low to moderate number of seismic activities throughout the years due to active Mensaban and Lobou-Lobou faults lines. Vulnerability level of older buildings in Sabah, designed and built on the basis of older codes of practice poses a significant threat to life safety and structural capacities of the existing buildings. This paper presents a framework of preliminary seismic vulnerability assessment of existing buildings in Kota Kinabalu. Building stocks include major government buildings and facilities, residential, educational, institutional, business as well as public buildings. The objective of this study is to evaluate and determine the vulnerability of existing buildings in seven major areas near Kota Kinabalu district using Rapid Visual Screening (RVS) scoring method based on FEMA154 (2002). The rapid visual score indicates that from the total two-hundredth-fifty (250) buildings assessed, (60.4%) are categorized as unsafe buildings and are strongly recommended for further evaluation and detailed analysis whereby modelling of structure is necessary.