

Seismic Vulnerability Assessment Using Rapid Visual Screening: Case Study of Educational Facility Buildings of Jenderal Soedirman University, Indonesia

Title	Seismic Vulnerability Assessment Using Rapid Visual Screening: Case Study of Educational Facility Buildings of Jenderal Soedirman University, Indonesia
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Abstract	<p>Earthquakes are natural phenomena occurring in various parts of the globe. Severe earthquakes caused substantial loss of life and property when nearly populated districts. Although some progress has been made in the area of seismic prediction, earthquakes in time, magnitude or location can not be estimated correctly. The primary method of reducing casualties is therefore to build seismic resistant structures. Current earthquakes show that the old houses, which are not intended to withstand earthquakes, have been harmed rather than the structures intended according to seismic regulations. Many current structures in Indonesia were intended only without seismic provisions to withstand the gravity loads. There is a need to study these buildings' vulnerability in order to prevent a severe danger. A Rapid Visual Screening (RVS) technique is conducted in this study to determine a Final Level 1 Score, SL1, for Jenderal Soedirman University, Indonesia's educational facility buildings. In nine constructions situated in Purwokerto and Purbalingga, the method was implemented. Moreover, the final SL1 score is an estimate of the collapse probability if an earthquake occurs with ground motions called the maximum considered earthquake targeted risk, MCER. These score estimates are based on restricted observed and analytical information, thus the probability of collapse is therefore an approximation.</p>
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