

Formulation of a Rapid Earthquake Risk Ranking Criteria for National Bridges in the National Capital Region Affected by the West Valley Fault Using GIS Data Integration

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Abstract : In this study, a Rapid Earthquake Risk Ranking Criteria was formulated by integrating various existing maps and databases by the Department of Public Works and Highways (DPWH) and Philippine Institute of Volcanology and Seismology (PHIVOLCS). Utilizing Geographic Information System (GIS) software, the above-mentioned maps and databases were used in extracting seismic hazard parameters and bridge vulnerability characteristics in order to rank the seismic damage risk rating of bridges in the National Capital Region.

Keywords : bridge, earthquake, GIS, hazard, risk, vulnerability

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