

Peak Ground Acceleration and Earthquake Intensity Microzonation in Watukumpul, Pemalang Regency

Title	Peak Ground Acceleration and Earthquake Intensity Microzonation in Watukumpul, Pemalang Regency
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Abstract	<p>Watukumpul is located in Pemalang District, Central Java, which is adjacent to the fault seismotectonic line of Baribis fault in the north and subduction area of the Eurasian and Indies-Australian plates in the south. It makes Watukumpul often experiences an earthquake. This study aimed to map the peak ground acceleration calculated using the Kanai equation and earthquake intensity calculated using Wald equations in Watukumpul. This study used historical earthquake data occurred in 1988-April 2018 from the International Seismological Center and microtremor measurements of 33 points. Microtremor data were processed using the Horizontal to Vertical Spectral Ratio method and resulted the predominant period of study area ranged from 0.13 to 0.74 s. The results showed that the study area had a PGA value of 26.93 - 63.25 gal. The intensity calculation showed that the study area has the potential for earthquake damage with an III-IV MMI scale. Keywords: Kanai, Watukumpul, Intensity, Earthquake</p>
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Author	URIP NURWIJAYANTO PRABOWO, S.Pd, M. Sc