ABSTRACT

DISASTER ZONING KOTAAGUNG AREAS USING MIKROTREMOR METHOD BASED AMPLIFICATION VALUE (HVSR) AND DOMINANT FREQUENCY

By

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Research has done in the area of Kota Agung using geophysics mikrotremor method with data 98 measurement points. Processing data has done using Geopshy.org for analyze the spectrum HVSR so obtained amplification value (H/V), dominant frequency, and thickness.

Based on the analysis that has been done get low value factor amplifier (Amplification) range between 1–3, medium amplification was ranged between 3–5, and high amplification range > 5. Dominant amplification in Kotaagung region have medium value. Low dominant frequency value range of 0–3 Hz, medium frequency dominant range of 3–6 Hz, and high dominant frequency range > 6 Hz. Zone which has a thin sediment has a thickness about 0–4 meters. Medium sediment zone with thickness about 40–80 meters. While the zones with values > 80 meters has high thickness value. The dominant area thickness of research located in lower zone (0–40 meters) and more towards the sea.

The areas most prone to shaking during earthquake is north of the Campang Tiga Village and Talangrejo, most of the Tanjung Anom Village until Batu Keramat area and Tanjung Bulan it is because the areas has value of amplification and high frequency and also very thin sediment. While the safe area is earthquake shaking is located in Terbaya Village, Kemiripan, and Teba.

Keywords: Microtremor, Amplification, Frequency, Period.