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Microzonation of DKI Jakarta Indonesia Using HVSR Method

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Earthquake disaster mitigation is required to perform in DKI Jakarta which is the Capital of the State of Indonesia. To find out the geological characteristics of the study area such as soil type and rock type, an HVSR analysis was performed. The amplification value and dominant frequency can be used to estimate the level of building damage due to earthquake, damage to buildings due to the earthquake will be more severe in areas that have HVSR parameters with high amplification values and low-frequency values. We compared the amplification value between 30 temporarily installed seismic stations and one of the CTBTO seismic stations, LEM which is in the south of the study area. The LEM is in the bedrock so that it can be used as a reference to determine the amplification in this region. Based on the analysis that has been done by correlating the results of zoning maps from amplification, dominant frequency and soil vulnerability index, it is known that the area with high level of damage if an earthquake occurs is the area around Ancol in North Jakarta which is a coastal area and near the swamp.

Promotional text

we using CTBTO seismic station for HVSR analysis

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