

## EVALUASI KERENTANAN GEDUNG REKTORAT STTNAS TERHADAP GEMPA BUMI BERDASARKAN ANALISIS MIKROTREMOR

<b>Title</b>	EVALUASI KERENTANAN GEDUNG REKTORAT STTNAS TERHADAP GEMPA BUMI BERDASARKAN ANALISIS MIKROTREMOR
<b>Author Order</b>	of
<b>Accreditation</b>	
<b>Abstract</b>	STTNAS building is a five floor building that located in the city of Yogyakarta which is an area with a high intensity earthquake occurrence. The purpose of this study is (1) determine the value of the natural frequencies of the building, (2) determine the index of the resonance of the building and (3) the vulnerability of buildings to earthquakes. Research will be done by measuring the microtremor wave of building STTNAS then analyzed using Spectral Floor Ratio (FSR). The analysis result is then compared with the classification defined in ISO 2002 on building resilience planning procedures earthquake. Fekuensi natural on the east-west component is 1.64 Hz and the north-south component is 1.644 Hz that is in conformity with the ISO 2002. Resonance Index of building STTNAS is ranging from 31.00081 to 35.883% thus including the low category resonance during an earthquake. Building of STTNAS vulnerability index ranges are between 103,670.6191 to 82526.5357 with the highest value found on the 4th floor.
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