

GIS Modelling of Earthquake Damage Zones of the Active Opak Fault using Satellite Remote Sensing and Dem Data and the Relationship with the Interaction of Plate Tectonic

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Yogyakarta is one of the provinces threatened by two sources of major natural disasters is volcanic eruptions and tectonic earthquakes. The earthquake that occurred in Bantul, Yogyakarta, Indonesia on May 27, 2006, included a large earthquake because it had a 6.3 Mw power with a depth of 11.7 km so that the earthquake included shallow deep and destructive earthquakes. The epicenter is located in the coordinates 8.03 S and 110.32 E. In several studies this earthquake occurred due to the movement of opak faults triggered by the interaction of tectonic plates in the southern part of the island of Java. We analyzed the movement of active faults in the Opak River which was interpreted as causing this earthquake. From the results of the analysis of the active opak fault relative direction SW-NE which is almost in line with the direction of the opak river flow. This is supported by the damage data that is relatively in line with the movement of fault is SW-NE so this supports our interpretation that opak active faults are a cause of earthquake in Bantul, Yogyakarta. Data processing was done with GIS software and we found a relationship between the three variable discussed in this poster is active opak fault, plate tectonic interaction and earthquake that occurred in Bantul, Yogyakarta.

Biography:

Riomas Harjuno Aji is a geological engineering student at the Universitas Pembangunan Nasional "Veteran" Yogyakarta. He had graduated from Sleman 1 State High School in 2015 and was accepted in geological engineering at the Universitas Pembangunan Nasional "Veteran" Yogyakarta in the same year. He often visited to various seminars, workshop and conferences related to geology and presently he is pursuing 7th semester at the university or in the final year before graduating. He was a board member of the Universitas Pembangunan Nasional "Veteran" Yogyakarta Geological Engineering Student Association (HMTG) and a member of the Indonesian Geological Student Association (PERHIMAGI). His area of interest is about coal, oil and gas and Geochemistry.