INVESTIGATING OF VLF SIGNAL PRECURSORS OF EARTHQUAKE NEAR SUMATRA ISLAND

Thesis is presented in partial fulfilment for the award of the Bachelor of Engineering (Hons.) Electronics (Communication)

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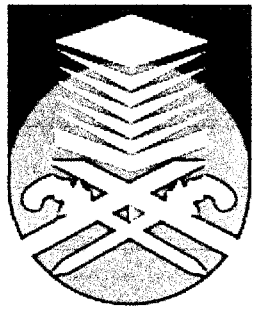

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With the name of ALLAH the Most Gracious and Most Merciful

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ABSTRACT

This paper investigates the possibility of earthquake precursors using narrowband Very Low Frequency (VLF) signal propagating in the earth ionosphere waveguide. VLF signals from VTX transmitter is used because its propagation path passes through the seismic active region in the Sumatra Island. Out of seven earthquakes detected near (less than 200km) the propagation path, only one earthquake that shows possible evidence of VLF perturbation due the location is near to the propagation path and has shallow depth (less than 70km). The earthquake that shows possible evidence on the presence of the precursors is the earthquake on 9th May 2010 in Northern Sumatra, Indonesia

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