ABSTRACT

Sending Digital Data with HF Radio Waves Using the AES Encryption Data Security Mechanism

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The computer is used as a medium to secure data or files before sending. A document is said to be safe if it fulfills 3 (three) main aspects, namely confidentiality, integrity and availability. Faced with geographical conditions in Indonesia, it is very fitting to need a radio communication that can reach all regions, namely by using HF (High Frequency) radio. In previous studies, one of them has already been discussed regarding digital data transmission via HF (High Frequency) radio and encryption systems as HT (Handy Talky) Communication Security. Through HF radio media can also be used as an alternative in sending remote data. For data security in the file that is sent to use encryption. From previous research, researchers used the Raspberry Pi to secure data and connect with HF (High Frequency) radio. Data will be tried using 4 different file types (txt, docx, xlsx, jpg) with a file size of 565 bytes, 12,771 bytes, 156,166 bytes, 11,507 bytes and 15,382 bytes. Experiment sending data from Jakarta - Merak with a distance of 135Km.

Kata kunci : *AES encryption, HF Radio, file security, Raspberry Pi*