

## ABSTRACT

Data confidentiality has been researched in depth in various resources as a method in securing information during transmission. Uncompress audio data normally has a relatively big data size. This condition makes data encryption for audio need to be special.

In this research we use Baker Map algorithm to encrypt audio signal. Baker map is originally popular in image encryption due to its realibility. Brute force attack computation as calculated gave  $1.66 \times 10^{55}$  year to crack the code, hence it is safe enough to call it secure.

In term of computation time, Baker Map on audio gave computation time of 1.049, 23.10 and 185.81 seconds for audio matrix size of 256, 512 and 1024 respectively. As additional information, encryption using random key produce computation time 6,67% faster than computation using constant key. In contrary, DES algorithm produce computation time of 3.39, 205.98, 3290.48 seconds for similar matrix size.

**Keywords :** *Brute Force Attact, Baker Map method, audio digital, DES method.*