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RESEARCH ARTICLE

Key Generation Using Genetic Algorithm for Image Encryption

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Abstract— Cryptography is essential for protecting information as the importance of security is increasing day by day with the advent of online transaction processing and e commerce. Now a day the security of digital images are major area of concern, especially when we deal with digital images where it may be stored or send through the communication channel. Genetic algorithms are a class of optimization algorithms. Genetic algorithms can be used to solve different problems through modeling a simplified version of genetic processes. This paper proposed a method based on Genetic Algorithm which is used to generate key by the help of random number generator to make the key complex. Key generation will go through a number of process and main criteria for key selection will be the fitness value of the population. AES which is a symmetric key encryption algorithm is used to encrypt the image.

Key Terms: - Cryptography; Random Number Generator; Genetic Algorithm; AES

Full Text: http://www.ijcsmc.com/docs/papers/June2013/V2I6201396.pdf