

## Implementation of Achterbahn-128 for Images Encryption and Decryption

**Authors :** Aissa Belmeguenai, Khaled Mansouri

**Abstract :** In this work, an efficient implementation of Achterbahn-128 for images encryption and decryption was introduced. The implementation for this simulated project is written by MATLAB.7.5. At first two different original images are used for validate the proposed design. Then our developed program was used to transform the original images data into image digits file. Finally, we used our implemented program to encrypt and decrypt images data. Several tests are done for proving the design performance including visual tests and security analysis; we discuss the security analysis of the proposed image encryption scheme including some important ones like key sensitivity analysis, key space analysis, and statistical attacks.

**Keywords :** Achterbahn-128, stream cipher, image encryption, security analysis

**Conference Title :** ICCEIE 2015 : International Conference on Communication and Electronic Information Engineering

**Conference Location :** Paris, France

**Conference Dates :** January 23-24, 2015