Abstract

Now-a-days internet is one of the most important sources of communication and thousands of people interact electronically. For sending sensitive messages over the internet, we need security. Hence for secure communication required the algorithms. Among these algorithms is Twofish, a promising 128-bit block cipher and one of the competitors in National Institute of Standards and Technology’s (NIST) AES competition, for the replacement of DES at the core of many encryption systems world-wide. In this paper the security algorithm, twofish has been explained with all of its modules (some modules has been modified) for both 128 and 192-bit key size. Implementation on VHDL using Xilinx – 6.1 xst software has been done taking delay as main constraint.

References

Implementation of Modified Twofish Algorithm using 128 and 192-bit keys on VHDL

- Mark De Clercq, Vincent Levesque "A VHDL Implementation of the Twofish Block Cipher"; in IEEE, 2006
- Hani H. JABER "Relational Database Security Enhancements"; in Arab University, 2008
- G. Catalini, F. Chiaraluce, L. Ciccarelli, E. Gamhi, P. Pierleoni, M. Reginelli, "modified twofish algorithm for increasing security and efficiency in the encryption of video signals"; in IEEE, 2005
- Bruce Schneier, John Kelsey, Doug Whiting, David Wagner, Chris Hall, Niels Ferguson, Tadayoshi Kohno, Mike Stay "The Twofish Team"; Final Comments on AES Selection

Index Terms

Computer Science          Algorithms

Keywords

Twofish     MDS     PHT     DES     Function F and g