

Cryptography Enriched by the Art of Music

Tonislav Svetoslavov Troev

Konstantin Preslavsky University of Shumen,

Bulgaria, Shumen, 9700, 115 Universitetska Str.

tony13troev@gmail.com

Abstract

Keywords: Musical cryptography, Encryption, Decryption

Data Security has become an important topic in our contemporary social world. There are different concepts of cryptography that are used by every enterprise system in order to ensure the protection of their customers' data. Along with the rapid expansion of the Internet information space new cryptography branches are being developed so the confidentiality, integrity and authority of the transmitted open signals are assured. One of them is the "Musical cryptography" that uses the musical notes as an encryption and decryption tool.

References

1. M. Yamunna, A. Sankar, S. Ravichandran, V. Harish. Encryption of Binary String Using Music Notes and Graph theory, *International Journal of Engineering and Technology (IJET)*, 5(3), 2920-2925, 2013.
2. S. Dutta, C. Kumar, S. Chakraborty. A Symmetric Key Algorithm for Cryptography using Music, *International Journal of Engineering and Technology (IJET)*, 5(3), 3109-3115, 2013.
3. S. Dutta, S. Chakraborty, N. C. Mahanti. A Novel Method of Hiding Message Using Musical Notes, *International Journal of Computer Applications*, 1(16), 76-79, 2010.
4. N. Lamaute, A. Picolli, L. Chen, A. Cotoranu. A Substitution Cipher for Musical Cryptography, *Proceedings of Student-Faculty Research Day*, CSIS, Pace University, May 6th, 2016, B5-1-B5-6.

The work is partially supported by the National Scientific Program "Information and Communication Technologies for a Single Digital Market in Science, Education and Security (ICTinSES)", financed by the Ministry of Education and Science, Bulgaria.