Valeriy Bezkorovainyi
D.S. Timofeev, research supervisor
V.V. Gubkina, language adviser
SHEI “National Mining University”, Dnipropetrovsk

## Problems of Technical Channels of the Information Leakage

The present stage of the community development is characterized by increasing the role of the information sphere that represents collection of the information, its infrastructure, people who realize collection, formation, spreading and using information. A fundamental concern in computer security is to control information flow, whether to protect confidential information from being leaked, or to protect trusted information from being tainted.

The information can be represented as a set of data gathered during the process of communication regardless of their representation method. While working with the information and communication technology we are being exposed to a number of risks in the form of various ways and possibilities of an unauthorized disclosure of data. The impact on the environment/s, as a collateral phenomenon in the use of the ICT may be directly linked to the processed data and those data that are transmitted through communication connections. These data may be flowing off into an unsupervised area through the side channels, by means of electromagnetic (EM) radiation, various forms of parasitic couplings, power lines and conducting infrastructure. Technical channel of information leakage (TCIL) is considered to be a physical path which information passes through from information source to hacker. The information leakage has different types. Each of them has got their own features and can be classified due to its specifications, namely technical channels of the information leakage processed with technical facilities of the information reception (electromagnetic, electrics, parametric); technical channel of the acoustic (speech) information leakage (air, vibration, parametric, electroacoustic, optronic equipment (laser)), technical channel of the information interception received with communication path (information interception obtained by means of radio and radio relay link: electromagnetic; information reading carried out by using cable connection lines: electric, induction). Such channels of information leakage as visual-optical, acoustic (including acoustic-transformative), electromagnetic (including magnetic and electric), physical (paper, photo, magnetic medium, different productive wastes such as solid, liquid and gaseous ones correspond to such following environments as light rays, sonic and electromagnetic waves, materials and substances providing information transfer.

Giving into consideration all above mentioned we can assume that TCIL is vitally important and widespread challenge and it is urgent need to consider the information threats modeling that liable to protect and to find new methods and techniques to smooth the problem of information cracking.