ANNOTATION

The purpose of this thesis is to conduct scientific research of wireless networks. Search for vulnerabilities and security methods, in particular consideration of the most common WPA2 Protocol for ways to gain unauthorized access to the wireless network. Carrying out practical attacks on wireless networks, a successful attempt to break the new WPA 3 Protocol by special configuration of existing tools, as well as compromising frequently used routers, an attack related to a vulnerability in hardware. As well as the implementation of the next steps after obtaining unauthorized access to the network, scanning of available devices and their subsequent hacking. The creation of a right protection of a wireless network, with the aim of ensuring integrity and confidentiality using various tools to ensure security.