

ABSTRACT OF SCIENTIFIC SPECIALTY

1.2.4. CYBER SECURITY

are being studied Problems protection information, telecommunications and computing systems, territorially distributed complexes for collecting, storing and processing information and systems with remote access to shared resources.

Includes the following areas of research:

Analysis of known and newly discovered vulnerabilities, their systematization, development of methods for intelligent search for new classes of vulnerabilities.

Modeling of information security policies, threats and attacks, methodological foundations for the development of protection profiles.

Methods for designing, modeling, analyzing, transforming programs to identify potential vulnerabilities in software systems, taking into account the specifics of the phases of the life cycle: requirements development, architecture design, code development, testing, verification, certification and operation.

Methods, algorithms and tools for post-release deep analysis of software and hardware security.

Methods for integrating security tools at the hardware and software levels.

Methods, algorithms And facilities ensure sustainable functioning of software and hardware systems V conditions malicious impact, including methods of obfuscation and safe compilation of programs.

Intellectual scalable monitoring incidents security in distributed software and hardware systems, methods of rapid response to identified threats.

Scalable data and process mining tools in distributed systems, including social networks.

Development of methodological foundations for the creation and development of metrics for assessing security, the level of trust in computer systems and standards in the field of cybersecurity.