

«APPROVED»

Dean of the Faculty of  
Information Technologies  
L.N. Gumilyov ENU  
Seilov Sh.Zh.

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**Subject of master's theses on the educational program  
"7M06102- Computer science " for the 2020-2021 academic year**

1. Modeling reasoning based on knowledge base in intelligent decision support systems
2. Intellectual textbook on computer science in the Kazakh language
3. Named entity extraction from Kazakh texts based on machine learning
4. Using machine learning methods for sentiment analysis of texts
5. Intellectual analysis of kazakh texts for the formation of annotations
6. Developing subjectivity detection Methods for sentiment analysis in social networks
7. Intelligent Python Learning System
8. Creation of a knowledge base of subjects of small business
9. Automatic Generation of Documents in Office Suite Formats Based on Specified Templates
10. Development of an information and analytical portal of quotations of securities and currencies for brokers
11. Development of an application for parallel Corpus preparation from Kazakh and Chinese texts
12. Machine learning based aspect level sentiment analysis
13. Application of artificial intelligence methods in the development of an intelligent multimedia teaching system
14. Biometric identification of user by face detection
15. Image search by content with method based on idea of sparse data presentation  
Creation of a corpus of marked-up video files based on Kazakh sign speech using the Elan program
16. Intellectual analysis of the legislation texts on real estate taxes

**Subject of master's theses on the educational program  
"7M06109- Administrator for the management and protection of computer systems  
and networks at enterprises" for the 2020-2021 academic year**

1. Research of the administration process in building enterprise security against information security threats
2. Control system and management of access to information resources of an oil production enterprise
3. Research on the effectiveness of information security system administration
4. Research of the administration of information and communication infrastructure protection of the enterprise for the period of remote form of work (quarantine period)
5. Advanced Administration of Windows Operating Systems Based on Open Source Utilities
6. Researching data mining methods to improve information security level
7. Development of a method for encrypting data on a remote computer based on a hybrid protocol
8. Creating a text corpus for detecting prohibited content
9. Methods of protection against attacks on neural networks
10. Comprehensive information security of a Web server on the Red Hat Enterprise Linux 8 platform
11. Methods of developing secure Oracle database applications in Java
12. Methods and algorithms for analyzing the security of IS users from socioengineering attacks
13. Static analysis of scripts to detect malicious functionality
14. Detection of negative sentiment in social networks
15. Methodology of administration and network protection, systems of distance learning (on the example of a training center)
16. Development of a speaker authentication method and study of its resistance to audio replay attacks
17. Methods for analyzing sites for malicious content

**Subject of master's theses on the educational program 7M06306 -  
"Information security systems" for the 2020-2021 academic year**

1. Network traffic monitoring and analysis tools
2. Features of the use of DLP (Data Loss Prevention) technologies - systems in the investigation of information security incidents, taking into account the national regulatory framework of the Republic of Kazakhstan
3. Composite authentication of users of information systems
4. Development of methods for conducting secure video conferencing
5. Methods and tools for cryptanalysis of block ciphers
6. Methodology for the formation of a hierarchy of trust in the results of identification and authentication of access subjects
7. Monitoring of network objects to provide network security
8. Using java security tools to create web applications
9. Traffic modeling and analysis for corporate networks
10. Research improve safety network require high fault tolerance and reliability
11. Information protection using logical files
12. Analysis of methods of network traffic management
13. An information security risk assessment of organization
14. Development of proposals for improving the regulatory requirements of information security of Kazakhstan in relation to SCADA
15. Use of visualization for information protection
16. Efficiency analysis of safety equipment, being used for electronic data protection in informational systems
17. Biometric user identification based on voice recognition
18. Development of multithreaded algorithms on Golang
19. Analysis and development of a traffic management model for access networks
20. Cryptoalgorithms based on finite automata models using Abelian algebraic structures
21. Calculating the level of security of an enterprise's information and communication infrastructure
22. The application of steganography methods to image transferring from remote sensing satellites
23. Cryptoalgorithms for stream ciphers on finite state machines
24. Research of methods for detecting unauthorized access to operating systems
25. Optimization of the corporate network monitoring system for security
26. Enterprise network device monitoring for network security and resiliency using Zabbix system
27. Development of an information and analytical system for the computer crimes and incidents investigation.
28. Research of neural network systems for attack detection

Considered at a meeting of the Department of Information Security. Minutes No. 2.1 dated 02.10.2020

**Head of the  
Information Security Department**



**Satybaldina D.Zh.**