

APPROVE

Information technology faculty
the L.N.Gumilyov ENU

Seilov Sh.ZH.

« 2 » 2019

Topics of PhD theses

On speciality 8D06102 – «Computer Science»

2019-2020 academic years

- 1) Network activity monitoring system based on low-level operating system components and data mining algorithms
- 2) Parallel programming methods applied to combinatorics algorithms
- 3) Intelligent document management system for SOHO enterprises
- 4) Models and methods of information security audit of the enterprise
- 5) Methods and algorithms of processing medical images
- 6) Models and methods of mixed speech recognition.
- 7) Speech Synthesis based on Deep Learning
- 8) Speaker Identification based on Deep Learning
- 9) Automatic abstracting of text documents based on Deep Learning
- 10) Automatic document classification based on Deep Learning
- 11) Assessment of the quality of normative documents based on Deep Learning
- 12) Classification of subjects based on their properties and relationships
- 13) Asymmetric cryptosystems based on neural networks
- 14) Symmetric cryptosystems based on neural networks
- 15) Cryptosystems based on finite state machines without output
- 16) Cryptosystems based on cellular automata without output
- 17) Asymmetric cryptosystems based on quantum computing
- 18) Symmetric cryptosystems based on quantum computing
- 19) Smart-learning the basics of the Kazakh language
- 20) Smart-learning the basics of mathematics
- 21) Smart - learning the basics of computer science
- 22) Intelligent algorithms in adaptive learning system
- 23) Automated information system of adaptive learning based on the competence approach
- 24) Analytical and procedural models for information system of recognition of graphic objects in the conditions of uncertainty
- 25) Study of possibilities for improving the accuracy of identification of information biometric systems
- 26) Development of tools to improve the relevance of information search systems based on ontologies
- 27) Recognition of dynamic gestures of the deaf on the basis of hidden Markov models
- 28) Recognition of the Kazakh language by the method of main components
- 29) Creating a model of an animated sign language interpreter of the Kazakh sign language using the Unity3D graphics package

- 30) Development of algorithmic and software translation of the Kazakh text into the Kazakh sign language based on the library of syntactic structures
- 31) Analysis and recognition of the lip contour of a person to determine the visem of a sign language speaker
- 32) Methods of gesture recognition using Herem-a component of the gesture of the deaf

**Head of Department of Computer science
and Information security**



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