L.N. GUMILYOV EURASIAN NATIONAL UNIVERSITY

Faculty of Information Technologies

Department of Computer and Software Engineering

Names of areas of training

«Information and communication technology»

Group of educational programs

«Information Technology»

Educational programs:

Undergraduate (Bachelor)

«6B06104 – Computer Engineering and Software»

Master's degree

«7M06104 – Computer Engineering and Software»

PhD program

«8D06104 – Computer Engineering and Software»

BSc

Undergraduate (Bachelor)

«6B06104 – Computer Engineering and Software»

Objective of EP: Preparation of competitive graduates with knowledge and skills in the development and implementation of software, administration, and operation of the IT infrastructure of computing systems of various degrees of scale.

List of Specialist's Positions

- *Software developer*
- *DevOPS- Engineer*
- *Software Engineering Specialist Software Testing Specialist*
- *Network administrator*
- *System Administrator*
- *Mobile Application Developer*
- *Computer game developer*
- *Database Administration Specialist*
- *Software Maintenance Specialist*
- *Technical Documentation Specialist*
- *Information Security Specialist*
- *Big Data Specialist*
- *Quality Management Specialist*

FUNCTIONS OF PROFESSIONAL ACTIVITY

Undergraduate (Bachelor)

BSc

In the field of software engineering:

- *development, modification, control of software;*
- *design of structure and content and / or writing computer code;*
- *creation and operation of: system software, application software, databases, mobile applications and services;*
- *software testing for performance in various load modes;*
- *identification of software object vulnerabilities.*

In the field of information technologies and computer systems:

- *use of software tool environments and tools for creating digital signal processing systems, automated control systems, robotic complexes;*
- *equipment and installation of server equipment of the organization;*
- *configuration and maintenance of server equipment of the organization.*

MSc

Master's degree

«7M06104 – Computer Engineering and Software»

Objective of EP: Preparation of masters of technical Sciences with engineering and scientific thinking, pedagogical skills, carrying out research and management activities on the basis of methods of construction of computer and software systems in the field of software engineering.

List of Specialist's Positions

- *specialist in the development of high-load applications;*
- *IT infrastructure architect;*
- *information technology infrastructure engineer;*
- *Software engineer of IoT systems;*
- *specialist in the development of technical documentation (technical writer);*
- *project manager in the field of information technology;*
- *electronic equipment operation engineer*
- *system engineer;*
- *computer hardware design engineer;*
- *computer hardware development engineer;*
- *engineer developer of embedded systems;*
- *programmer-analyst;*
- *software engineer;*
- *Research scientist in the field of ICT;*
- *QA-engineer;*
- *application testing specialist;*
- *system architect;*
- *system analyst;*
- *software architect*

PhD program

«8D06104 – Computer Engineering and Software»

Objective of EP: Training of PhDs with advanced skills and in-depth knowledge to enable creation innovative architectural and software-hardware solutions for development of modern IT infrastructures and build academic, industrial and research careers in professional activities.

PhD

List of Specialist's Positions

- *Researcher in the ICT, project manager in the field of information technology;*
- *Head (Manager) of specialized ICT departments;*
- *Developer and specialist in software testing;*
- *Head of production process;*
- *Lecturer at the university, colleges, gymnasiums, employee of research institutes.*

About the Department of Computer and Software Engineering

STAFF

Doctor of Physical and Mathematical Sciences – 1
Doctor of Technical Sciences – 1
Candidates of Technical Sciences – 8
PhD – 7
Masters – 8

Kanagat Dyussekeyev
Head of the Department, PhD

Kazizat Iskakov
Professor, Doctor of Physical and Mathematical Sciences

Sabyrzhan Atanov
Professor, Doctor of Technical Sciences

Ainur Zhumadillayeva
Ass. professor, PhD

Zhanna Yessengaliyeva
Ass. professor, PhD

Natalya Glazyrina
Ass. professor, PhD

Zhanar Oralbekova
Ass. professor, PhD

Makpal Zhartybayeva
Ass. professor, PhD

Tolkyn Mirgalikyzy
Ass. professor, PhD

Marat Baydeldinov
Ass. professor, PhD

Scientific research

The department publishes a scientific journal

“Eurasian Journal of Mathematical and Computer Applications”

Responsible for scientific journal – prof. Kazizat Iskakov

In Scopus:

Category	Rank	Percentile
Mathematics	#50/77	35th
Computer Science	#257/353	27th

Scientific Projects Implemented at the Department:

- Development of a database of robotic complexes and creation of data for monitoring reservoirs in the finishing and post-watering periods with a non-destructive flow (Supervisor - prof. Makpal Zhartybayeva).
- Development of a new information system and database for analytical monitoring of pollution of the atmospheric weight of metals (Supervisor - prof. Zhanar Oralbekova).
- Development of algorithms and embedded software for the share of geoelectric separation for geoinformation technologies GPR (Supervisor – prof. Kazizat Iskakov).

LABORATORIES OF THE DEPARTMENT

1. Laboratory "Electric circuits and electronics”
2. Laboratory "Digital circuitry and microelectronics”
3. Laboratory "Robotic and mechatronic systems”
4. Laboratory "Computer and microprocessor technology”
5. Laboratory "Programming of electronic devices and encoding information”

Department of Computer and Software Engineering

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