



Ismailova Aisulu

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SCIENTIFIC QUALIFICATION

Academic degree: PhD, 6d070300-information systems (by industry), 2014

Academic title: Associate Professor in the specialty «Computer Science, Computer Engineering and management», 2022

Research area: Information Systems (Modeling ,design, development), data mining

Membership in various committees, councils, academies, etc:

Academician Of The International Academy Of Informatization

Expert: IAAR, NATR, on the evaluation of textbooks

The best university teacher in 2022

SCIENTIFIC SCHOOL

Protected under the supervision of

Doctoral students:

Shopagulov O.

Kadirkulov K.

Golenko E.

Moldasheva R.

Ispusinov Aidar, 2020

Maymakov Mirat, 2020

Arykbai Almas, 2020

Otegenova Aisholpan, 2020

Shevtsov Vladislav, 2020

Tulegenov Timur, 2021

Vyushkov Roman, 2021

Mustafin Sayan, 2021

Yevloev Salman, 2022

Serik Alisher, 2022

Buranbayev Anuar, 2022

Kadyrkesh Sultan, 2022

Kolbai Abylkhayyr, 2023

Sarsenbai Magzhan, 2023

Dyusekin Miras, 2024

Rozhapov Ramzan, 2024

Saparkhan Imanbek, 2024

Takerov Sharapat, 2024

Tsitskiev Daut., 2024

Undergraduates:

Zhapparkulov Kazbek, 2018

Ibadildin Bauyrzhan, 2019

Kadyrkulov Kuanysh, 2019

Kokanbekov Aybek, 2019

Omurbay Asylzat, 2019

Pokusai Olga, 2019

Sovetkin Sergey, 2019

Shotkin Azat, 2019

Yakovlev Viktor, 2019

Amangeldy Galymzhan, 2020

Asylbekov Ulan, 2020

SCIENTIFIC DIRECTION

Participation in the implementation of scientific research projects within the framework of the state order

2018-2020: executor of the research project targeted financing program of the Ministry of Agriculture BR06349515 «Transfer and adaptation of innovative technologies to optimize production processes in dairy farms of Northern Kazakhstan».

2020-2021: executor of the scientific project of the Ministry of education and science of the Republic of Kazakhstan within the framework of the World Bank Program: «Project for the modernization of education – «Consulting services for the development of requirements for the evaluation of textbooks and advanced training of experts»

2023-2025: Head of the scientific project IRN AP19678041 of the Ministry of education and science of the Republic of Kazakhstan «Development of software for identification of tandem repeats using whole genome sequencing»

SCIENTIFIC ACHIEVEMENTS

Hirsch index-7

Web of Science, Scopus publications (including the most important ones in the proposed areas as of 2022):

1) Effectiveness of the use of algorithms and methods of artificial technologies for sign language recognition for people with disabilities *Eastern-European Journal of Enterprise Technologies* Volume 4, Issue 2-118, 2022. P.25-31 <https://doi.org/10.15587/1729-4061.2022.262509>

2) Implementation of machine learning models to determine the appropriate model for protein function prediction *Eastern-European Journal of Enterprise Technologies* Volume 5, Issue 4-119, 2022. P.42-49 <https://doi.org/10.15587/1729-4061.2022.263270>

3) Interpretation of laboratory results through comprehensive automation of medical laboratory using OpenAI *Eastern-European Journal of Enterprise Technologies* Volume 4, Issue 2-124, 2023. P.26-34 <https://doi.org/10.15587/1729-4061.2022.263270>

4) Method for controlling phytoplankton distribution in fresh open water *International Journal of Environmental Studies*, 2023 <https://doi.org/10.1080/00207233.2023.2249791>

5) Neurocomputer System of Semantic Analysis of the Text in the Kazakh Language *ACM Transactions on Asian and Low-Resource Language Information Processing*, 2024, 23(4), 57 <https://doi.org/10.1145/3652159>

6) Analyzing disease and pest dynamics in steppe crop using structured data *IEEE Access*. 2024, 12, P. 71323–71330 <https://doi.org/10.1109/ACCESS.2024.3397843>

7) *In silico* PCR analysis: a comprehensive bioinformatics tool for enhancing nucleic acid amplification assays *Frontiers in Bioinformatics*, 2024, V.4 2024 № 1464197 <https://doi.org/10.3389/fbinf.2024.1464197>

8) Development of a feature vector for accurate breast cancer detection in mammographic images *International Journal of Cognitive Computing in Engineering* 7 (2026) 12–25 <https://doi.org/10.1016/j.ijcce.2025.08.001>

Publications in scientific journals SHEQAC

More than 70, including the most important in the proposed areas from 2022:

9) Application of information systems and tools in bioinformatics *Scientific Journal of Astana IT University* Volume 9, March 2022. P. 14–21 <https://doi.org/10.37943/AITU.8022.59.49.002>

10) Применение методов глубокого обучения для предсказания структуры белков *Вестник Национальной инженерной Академии РК* №4(86). – Алматы, 2022. С. 28–40 <https://doi.org/10.47533/2020.1606-146X.192>

11) Предсказание функций белка с использованием комбинации BiLSTM и алгоритма самовнимания. *Известия НАН РК. Серия физико-математическая*, (3), 62–75. <https://doi.org/10.32014/2023.2518-1726.204>

12) Разработка онлайн-платформы для поиска tandemных повторов при полногеномном секвенировании *Известия НАН РК. Серия физико-математическая*, №4(352), 2024. С. 112–122. <https://doi.org/10.32014/2024.2518-1726.311>

Security documents

More than 10, including the most important ones:

- A program for an Electronic Computer «Program module «PFP_SelfAttn_BiLST», No. 42935, 02/15/2024.

- Utility model patent «Approach to the diagnosis of breast cancer» No. 11385, dated 14.11.2025.

- A program for an Electronic Computer «Web application for detecting tandem repetition during full genomic sequencing» No. 63064, 10/16/2025.