



Nurpeisova Ardak Aldanyshovna

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SCIENTIFIC QUALIFICATION

Academic degree: PhD 6D050600 – Economics 2021: dissertation on "Development of a mathematical model for optimizing the process of creating an innovative product"

Research area: Mathematical modeling, information systems

Awards and certificates of honor

Winner of the title "Best University Teacher-2025"

SCIENTIFIC DIRECTION

Participation in the implementation of research within the framework of the state order:

2021-2023: Executor of the scientific project of the Ministry of Education and Science of the Republic of Kazakhstan No.AP09259657 "Research and development of an automated proctoring system for monitoring students' knowledge in a distance learning environment."

2024-2026: Executor of the scientific project of the Ministry of Education and Science of the Republic of Kazakhstan No.AP23486538 "Research and development of an image recognition system in video streams"

The Hirsch index - 7**Publications in Web of Science, Scopus**

1. Nurpeisova, A.; Shaushenova, A.; Mutalova, Z.; Zulpykhar, Z.; Ongarbayeva, M.; Niyazbekova, S.; Semenov, A.; Maisigova, L. The Study of Mathematical Models and Algorithms for Face Recognition in Images Using Python in Proctoring System. *Computation* 2022, 10, 136. <https://doi.org/10.3390/computation10080136> (Scopus, 70 процентиљ, CiteScore 2021= 3.3, SJR 2021=0.389, Web of Science= Q2)
3. Mutalova Zh., Shaushenova A., Nurpeisova A., Ongarbayeva M., Ispussinov A., Bekenova S., Development of a mathematical model for detecting moving objects in video streams in real-time. *IEEE Access*, 2024. <https://doi.org/10.1109/ACCESS.2024.3487783>
4. Nurpeisova, A.; Shaushenova, A.; Kuznetsov, O.; Ispussinov, A.; Mutalova, Z.; Kassymova, A. Deep Residual Learning for Face Anti-Spoofing: A Mathematical Framework for Optimized Skip Connections. *Technologies* 2025, 13, 413. <https://doi.org/10.3390/technologies13090413> (Scopus, 88 процентиљ, CiteScore 2022= 8.5, SJR 2022=0.880; Web of Science Q1, JCI 2024=1,03)
5. Issembayeva, A.; Kuznetsov, O.; Shaushenova, A.; Nurpeisova, A.; Shuitenov, G.; Ongarbayeva, M. Mathematical Modeling of Optimal Drone Flight Trajectories for Enhanced Object Detection in Video Streams Using Kolmogorov–Arnold Networks. *Technologies* 2025, 13, 235. <https://doi.org/10.3390/technologies13060235> (Scopus, 88 процентиљ, CiteScore 2022= 8.5, SJR 2022=0.880; Web of Science Q1, JCI 2024=1,03)
6. Shaushenova, A.; Kuznetsov, O.; Nurpeisova, A.; Ongarbayeva, M. Emplementation of Kolmogorov–Arnold Networks for Efficient Image Processing in Resource-Constrained Internet of Things Devices. *Technologies* 2025, 13, 155. <https://doi.org/10.3390/technologies13040155> (Scopus, 88 процентиљ, CiteScore 2022= 8.5, SJR 2022=0.880; Web of Science Q1, JCI 2024=1,03)

Publications to the Committee on Quality Assurance in the Field of Science and Higher Education of the MSHE of the Republic of Kazakhstan

1. Shaushenova A. G., Nurpeisova A. A., Mutalova Zh. s., Dosalyanov D. B., Ongarbayeva M. B. The specifics of the zarubezhnye system of video monitoring and identification of training in remote training. Izvestia bread RK. Series Physics and Computer Science. №3, 2022. https://doi.org/10.32014_2518-1726_2022_343_3_247-259
2. Shaushenova A. G., Nurpeisova A. A., Dosalyanov D. B., Mauina G. M. neural networks of the study of speech in the automated system of proctoring. Reports of NAS RK. Physics and Computer Science series. №4, 2022. <https://doi.org/10.32014/2022.2518-1726.163>
3. Shaushenova A. G., Nurpeisova A. A., Mutalova Zh. s., Dosalyanov D. B., Ongarbayeva M. B. The specifics of the zarubezhnye system of video monitoring and identification of training in remote training. Izvestia bread RK. Series Physics and Computer Science. №3, 2022. https://doi.org/10.32014_2518-1726_2022_343_3_247-259
4. Shaushenova A. G., Nurpeisova A. A., Dosalyanov D. B., Mauina G. M. Neural networks of communication science in the proctoringautomatized system of speech science. Reports of NAS RK. Physics and Computer Science series. №4, 2022. <https://doi.org/10.32014/2022.2518-1726.163>

Security documents

Utility model patent

Mutalova Zh., Nurpeisova A., Shaushenova A., Ispusinov A., Zhumalieva L. (2024). A neural network-based face recognition system. The patent of the Republic of Kazakhstan. № 9870. Ministry of Justice of the Republic of Kazakhstan. Registered on November 29, 2024.

Copyright certificate

- 1) Shaushenova A. G., Nurpeisova A. A. Methods of scientific research. The program for computers. June 10, 2021 № 18588.
- 2) Shushenova A. G., Nurpeisova A. A. methodology of scientific research. The program for computers. June 17, 2021 № 18807.3)