**«Ш. Есенов атындағы Каспий технологиялар және инжиниринг университеті» КеАҚ**

**Ғылым және технологиялар факультеті**

**қауымдастырылған профессор м.а. (доцент)**

**Макулов Кайырбек Калданбекович**

**ғылыми және ғылыми-әдістемелік еңбектерiнің**

**ТIЗIМI**

**СПИСОК**

**научных и научно-методических трудов**

**и.о. ассоциированого профессора (доцент)**

**Факультета науки и технологии**

**НАО «Каспийский университет технологий и инжиниринга имени Ш. Есенова»**

**Макулова Кайырбека Калданбековича**

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| Р/с**№****-****№****п/п** | **Атауы**-Название | **Баспа немесе****электрондық****-****Печатный или электронный** | **Басылым** **(атауы, №, жылы, беттерi),****авторлық куәліктің, патенттің №****-****Издание (название, год,** **№ страницы) /****№ авторского свидетельства, патента** | **Баспа табақтар****-****Количество печатных листов** | **Қосалқы автор(лардың)** **аты-жөні****-****Ф.И.О. соавтора(ов)** |
| 1 | **2** | **3** | **4** | **5** | **6** |
| **Web of Science және Scopus ғылыми-метрикалық мәліметтер базасына кіретін басылымдардағы мақалалар****Статьи в изданиях, входящих в наукометрические базы данных Web of Science и Scopus**  |
| 1 | Optimization of computer ontologies for e-courses in information and communication technologies | БаспаПечат. | International Journal of Electronics and Telecommunications, 2024, 70(1), pp. 191–197Процентиль – Computer Networks and Communications 23DOI: 10.24425/ijet.2024.149530 | 0,4 | N.Sabitova, Y.Tikhonov, V.Lakhno, K.Makulov, O.Kryvoruchko, V.Chubaievskyi, A.Desiatko, M.Zhumadilova |

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| **1** | **2** | **3** | **4** | **5** | **6** |
| 2 | Analyzing Disease and Pest Dynamics in Steppe Crop Using Structured Data | БаспаПечат. | IEEE Access, 2024, 12, pp. 71323–71330 Процентиль – General Computer Science 87DOI: 10.1109/ACCESS.2024.3397843 | 0,5 | Tussupov J.;Abdikerimova G.;Ismailova А. Kassymova A.;Beldeubayeva Z.;Aitimov M.;Makulov K. |
| 3 | Formation of Models for Registering Systemic Processes in The Digital Educational Environment of the University Based on Log File Analysis | БаспаПечат. | International Journal of Electronics and Telecommunications, 2024, 70(2), pp. 389–396Процентиль – Computer Networks and Communications 23DOI: 10.24425/ijet.2024.149557 | 0,5 | Lakhno V.;Akhmetov B.;Makulov K.;Tynymbayev B.;Tsiutsiura S.;Tsiutsiura M.;Chubaievskyi V. |
| 4 | Electronic footprint analysis and cluster analysis techniques for information security risk research of university digital systems | БаспаПечат. | International Journal of Electronics and Telecommunications, 2024, 70(2), pp. 405–412Процентиль – Computer Networks and Communications 23DOI: 10.24425/ijet.2024.149559 | 0,5 | Lakhno V.;Lakhno M.;Makulov K.;Kryvoruchko O.;Desiatko A.;Chubaievskyi V.;Ishchuk D.;Kabylbekova V. |
| 5 | Targeted Attacks Detection and Security Intruders Identification in the Cyber Space | БаспаПечат. | International Journal of Computer Network and Information Security, 2024, 16(4), pp. 144–153Процентиль – Computer Networks and Communications 54DOI: 10.5815/ijcnis.2024.04.10 | 0,6 | Avkurova Z.;Gnatyuk S.;Abduraimova B.;Makulov K. |
| 6 | Cloud Platform Selection Model in the Framework of Differential Quality Game with Fuzzy Information | БаспаПечат. | IEEE Access, 2025, [Volume: 13](https://ieeexplore.ieee.org/xpl/tocresult.jsp?isnumber=10820123&punumber=6287639), pp. 22578-22589Процентиль – General Computer Science 87DOI: 10.1109/ACCESS.2025.3535814 | 0,75 | Makulov K., Chikrii A., Lakhno V., Yagaliyeva B., Malyukov V., Malyukova I., Lakhno M. |

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| **1** | **2** | **3** | **4** | **5** | **6** |
| 7 | Information and Analytical System for Monitoring Gender Equality among university lecturers | БаспаПечат. | International Journal of Electronics and Telecommunications. 2025, VOL. 71, NO. 1, PP. 189-196Процентиль – Computer Networks and Communications 23DOI: 10.24425/ijet.2025.153561 | 0,5 | Makulov K., Chernyshova D.; Bogatyrova K. Kateryna  K.; Geseleva N.; Miniailo V.; Karpunin I. |
| 8 | Predicting and detecting fires on multispectral images using machine learning methods | БаспаПечат. | International Journal of Electrical and Computer Engineering, 2024, 14(2), pp. 1842–1850Процентиль – General Computer Science 66DOI: 10.11591/ijece.v14i2.pp1842-1850  | 0,5 | M. Aitimov, M.Kaldarova, A.Kassymova, K.Makulov, R.Muratkhan, S.Nurakynov, N.Sydyk, I.Bapiyev |
| **Уәкілетті орган ұсынған басылымдарда****В изданиях, рекомендуемых уполномоченным органом** |
| 1 | Analysis of Expert Systems, revealing of the main deficiencies and specification of ways of its solving | БаспаПечат. | Вестник КазНТУ. – 2014. - №6. – С.56-60<https://official.satbayev.university/download/document/7139/%D0%92%D0%95%D0%A1%D0%A2%D0%9D%D0%98%D0%9A-2014%20%E2%84%966.pdf> | 0,3 | K. Makulov, Zh. Otarbayev, B. Yagaliyeva |
| 2 | The study of expert systems for improving the work of government resources  | БаспаПечат. | Вестник КазНТУ. – 2017. - №2 (120). – С.243-246<https://official.satbayev.university/download/document/7179/%D0%92%D0%95%D0%A1%D0%A2%D0%9D%D0%98%D0%9A-2017%20%E2%84%962.pdf> | 0,25 | Е.Н. Карабалиев, К.К. Макулов |
| 3 | Жоғары оқу орындарында қашықтан оқыту технологиясын қолдану мәселелері және өзектілігі | БаспаПечат. | Вестник Восточно-Казахстанского государственного технического университета им. Д. Серикбаева. Вычислительные технологии: научный журнал: изд. 2013. Часть №4. -С.193-199.[http://rmebrk.kz/magazine/1857#](http://rmebrk.kz/magazine/1857) | 0,43 | Ж. Отарбаев,К.Макулов,Б.Ягалиева |

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| **1** | **2** | **3** | **4** | **5** | **6** |
| 4 | Қорғаныс жағындағы қатерлер мен ресурстардың бұлдыр жиынтығымен киберқауіпсіздікті қаржыландырудың адаптивті моделі | БаспаПечат. | Вестник Национальной инженерной академии Республики Казахстан. 2023. № 2 (88). -С.103-111<https://journal.neark.kz/wp-content/uploads/pdf/%D0%92%D0%B5%D1%81%D1%82%D0%BD%D0%B8%D0%BA-2_2023-w.pdf> | 0,5 | Б.Ягалиева,В.Лахно,К.Макулов |
| 5 | Исследование эмоциональной тональности текста с применением алгоритмов машинного и глубокого обучения | БаспаПечат. | «Қазақстан республикасы ұлттық ғылым академиясы» РҚБ «ХАЛЫҚ» ЖҚ ХАБАРЛАРЫ. Series physics and information technology. 2024. №2 (350). -С. 59-68.<https://journals.nauka-nanrk.kz/physics-mathematics/issue/view/384/397> | 0,6 | М. Айтимов, Г.Б.Абдикеримова, К.К. Макулов, Б.А. Досжанов, Р.У. Альменаева |
| 6 | Ғылыми мәтіндерден семантикалық құрылымдарды талдау және алу үшін машиналық оқыту әдісін қолдану | БаспаПечат. | ҚР Ұлттық ғылым академиясы» Хабарлары. Physico-mathematical series. 2024. №4 (352), -С. 6–16.<https://journals.nauka-nanrk.kz/physics-mathematics/issue/view/384> | 0,68 | М. Айтимов, Р.У Альменаева, К.К. Макулов, А.Б.Остаева, Р. Муратхан |
| 7 | Цифровой мониторинг и прогнозирование динамики состояния сельхозкультур при воздействии парниковых газов | БаспаПечат. | Вестник КазНПУ им. Абая, серия «Физико-математические науки», No4(88), 2024г. стр. 165<https://bulletin-phmath.kaznpu.kz/index.php/ped/issue/view/61> | 0,8 | О.А. Иващук, Б.Е. Ягалиева, Д.В. Гончаров, О. О. Иващук, К.К. Макулов |

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| **Халықаралық ғылыми-практикалық конференциялар жинақтарында** **В сборниках международных научно-практических конференций** |
| 1 | Analysis of Information Flows of Distance Education Systems, Taking into Account the Need to Ensure Their Cybersecurity | БаспаПечат. | CEUR Workshop Proceedings, 2022, 3288, pp. 104–109CiteScore за 2023 год 1.1Процентиль - General Computer Science 15<https://www.scopus.com/record/display.uri?eid=2-s2.0-85143772489&origin=recordpage>  | 0,4 | [Lakhno, V.](https://www.scopus.com/authid/detail.uri?authorId=57680586200), [Kydyralina, L.](https://www.scopus.com/authid/detail.uri?authorId=57203923198), [Akhmetov, B.](https://www.scopus.com/authid/detail.uri?authorId=57200984727), [Yagaliyeva, B.](https://www.scopus.com/authid/detail.uri?authorId=42062442900), [Makulov, K.](https://www.scopus.com/authid/detail.uri?authorId=58001557700) |
| 2 | Temperature and Humidity Control System Based on Baking Ovens Using Fuzzy Logic | БаспаПечат. | SIST 2023 - 2023 IEEE International Conference on Smart Information Systems and Technologies, Proceedings, 2023, pp. 573–578DOI: 10.1109/SIST58284.2023.10223569 | 0,4 | [Issabekova, L.](https://www.scopus.com/authid/detail.uri?authorId=57200151873), [Utepbergenov, I.](https://www.scopus.com/authid/detail.uri?authorId=55776203700), [Toybayeva, S.](https://www.scopus.com/authid/detail.uri?authorId=56826097400), [Makulov, K.](https://www.scopus.com/authid/detail.uri?authorId=58001557700), [Sagyndykova, Sh.N.](https://www.scopus.com/authid/detail.uri?authorId=55991791400) |
| 3 | Analysis of Threat Models for Unmanned Aerial Vehicles from Different Spheres of Life | БаспаПечат. | Lecture Notes on Data Engineering and Communications Technologies, 2023, 181, pp. 595–604CiteScore за 2023 год 0.9Процентиль - Computer Networks and Communications 11DOI: 10.1007/978-3-031-36118-0\_53 | 0,56 | [Martyniuk, H.](https://www.scopus.com/authid/detail.uri?authorId=57170878400), [Yagaliyeva, B.](https://www.scopus.com/authid/detail.uri?authorId=42062442900), [Akhmetov, B.](https://www.scopus.com/authid/detail.uri?authorId=57200984727), [Makulov, K.](https://www.scopus.com/authid/detail.uri?authorId=58001557700), [Akhmetov, B.](https://www.scopus.com/authid/detail.uri?authorId=56829370400) |
| 4 | Modular Matrix Multiplication for Cryptographic Conversions | БаспаПечат. | CEUR Workshop Proceedings, 2023, 3504, pp. 57–62CiteScore за 2023 год 1.1Процентиль - General Computer Science 15<https://www.scopus.com/record/display.uri?eid=2-s2.0-85175689134&origin=recordpage>  | 0,4 | [Tynymbayev, S.](https://www.scopus.com/authid/detail.uri?authorId=57200075185), [Gnatyuk, S.](https://www.scopus.com/authid/detail.uri?authorId=36184129600), [Berdibayev, R.](https://www.scopus.com/authid/detail.uri?authorId=57208583624), [Makulov, K.](https://www.scopus.com/authid/detail.uri?authorId=58001557700), [Okhrimenko, T.](https://www.scopus.com/authid/detail.uri?authorId=57210116999) |
| 5 | Differential Quality Game for Assessing the Financial Resources of Parties During an APT Attack | БаспаПечат. | Conference paper.[Software Engineering Methods Design and Application](https://link.springer.com/book/10.1007/978-3-031-70285-3). 23 October 2024. pp 404–415.CiteScore за 2023 год 0.9Процентиль - Computer Networks and Communications 10DOI: 10.1007/978-3-031-70285-3\_30 | 0,75 | [V. Lakhno](https://link.springer.com/chapter/10.1007/978-3-031-70285-3_30#auth-V_-Lakhno). [V. Malyukov](https://link.springer.com/chapter/10.1007/978-3-031-70285-3_30#auth-V_-Malyukov),, [K. Makulov](https://link.springer.com/chapter/10.1007/978-3-031-70285-3_30#auth-K_-Makulov),, [B. Bebeshko](https://link.springer.com/chapter/10.1007/978-3-031-70285-3_30#auth-B_-Bebeshko),  [V. Chubaievskyi](https://link.springer.com/chapter/10.1007/978-3-031-70285-3_30#auth-V_-Chubaievskyi), [V. Zvieriev](https://link.springer.com/chapter/10.1007/978-3-031-70285-3_30#auth-V_-Zvieriev)  [I. Malyukova](https://link.springer.com/chapter/10.1007/978-3-031-70285-3_30#auth-I_-Malyukova) |

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| 6 | [Modeling of an Automated System for Generating a Supply Plan](https://www.scopus.com/record/display.uri?eid=2-s2.0-85219176466&origin=recordpage) | БаспаПечат. | Lecture Notes in Electrical Engineering. 2025. 1324 LNEE, pp.16-26CiteScore за 2023 год 0.7Процентиль - Industrial and Manufacturing Engineering 20DOI: 10.1007/978-3-031-82494-4\_2 | 0,68 | Puzyrev N.S. Ivashchuk O.O.Makulov K.K. |
| 7 | Selecting an Academic Cloud Scheme Based on the Investment Model of a Differential Game of Quality | БаспаПечат. | 1st International Conference on Advanced Network Technologies and Computational Intelligence, ICANTCI 2024. 2382 CCIS. 2025. pp. 303 – 315.CiteScore за 2023 год 1.1Процентиль - General Computer Science 16DOI: 10.1007/978-3-031-86069-0\_24 | 0,8 | [V. Malyukov](https://link.springer.com/chapter/10.1007/978-3-031-86069-0_24#auth-V_-Malyukov), [V. Lakhno](https://link.springer.com/chapter/10.1007/978-3-031-86069-0_24#auth-V_-Lakhno), [Y. Matus](https://link.springer.com/chapter/10.1007/978-3-031-86069-0_24#auth-Y_-Matus), [K. Makulov](https://link.springer.com/chapter/10.1007/978-3-031-86069-0_24#auth-K_-Makulov), [M. Zhumadilova](https://link.springer.com/chapter/10.1007/978-3-031-86069-0_24#auth-M_-Zhumadilova), [O. Kryvoruchko](https://link.springer.com/chapter/10.1007/978-3-031-86069-0_24#auth-O_-Kryvoruchko) & [A. Desiatko](https://link.springer.com/chapter/10.1007/978-3-031-86069-0_24#auth-A_-Desiatko) |
| Монография |
| 1 | Интелектуалды басқару жүйелері: жасанды интеллект және цифрлық технологиялардың ықпалы  | БаспаПечат. | Монография. Алматы: Издательство «Полиграфия сервис и Ко», 2025. – 130 с. (ISBN 978-601-7399-81-8) | 8,1 | К.Макулов,Б.Ягалиева |