

**Published monographs in 2023**

	Name	Author	Publisher, year of publication, pp.	Volume in p.l.
1	Remote sensing and geographic information technologies for assessing salinization and degradation of agricultural land in the south of Kazakhstan. Monograph	Mukhamediev R.I., Amirgaliev E.N., Terekhov A.G.,	IIVT, 2023. – 270 p.	16.87 p.l.

**Individual collections of works published by the institute (for example, conference proceedings) in 2022-2023**

	Name	Publisher, year of publication	m Volume in p.l.
1	Y. Kuchin, N. Yunicheva R. Mukhamediev , Mukhamedieva . Assessment of the possibility of identifying zones of formation oxidation using machine learning methods // (KOKSON).	News of the NAS RK. Series of physical and mathematical sciences. – 2023. – No. 3(347). – P. 210–222.	

**Published scientific articles in 2023**

	Place of publication of the magazine
	Kuchin , Y.; Mukhamediev , R.; Yunicheva , N.; Symagulov , A.; Abramov , K.; Mukhamedieva , E.; Zaitseva , E.; Levashenko , V. Application of Machine Learning Methods to Assess Filtration Properties of Host Rocks of Uranium Deposits in Kazakhstan. Appl. Sci. 2023, 13, 10958. <a href="https://www.mdpi.com/2076-3417/13/19/10958">https://www.mdpi.com/2076-3417/13/19/10958</a> ; <a href="https://doi.org/10.3390/app131910958">https://doi.org/10.3390/app131910958</a>
	Mukhamediev R. I. Yakunin , K. , Aubakirov , M. , Assanov , I. , Kuchin , Y. , Symagulov , A. , Levashenko V. , Zatceva E. , Sokolov D. , Amirgaliyev , Y. . Coverage path planning optimization of heterogeneous UAVs group for precision agriculture //IEEE Access. – 2023. – T. 11. – No. 15. – S. 5789-5803, doi : 10.1109/ACCESS.2023.3235207, <a href="https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&amp;arnumber=10011226">https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&amp;arnumber=10011226</a>
	Zaitseva , E., Levashenko , V., Brinzei , N., Kovalenko , A., Yelis , M., Gopejenko , V., & Mukhamediev , R. Reliability Assessment of UAV Fleets //Emerging Networking in the Digital Transformation Age: Approaches, Protocols, Platforms, Best Practices, and Energy Efficiency. – Cham: Springer Nature Switzerland, 2023. – P. 335 -357. <a href="https://link.springer.com/chapter/10.1007/978-3-031-24963-1_19">https://link.springer.com/chapter/10.1007/978-3-031-24963-1_19</a>

	<p>Mukhamediev , R.; Amirgaliyev , Y.; Kuchin , Y.; Aubakirov , M.; Terekhov , A.; Merembayev , T.; Yelis , M.; Zaitceva , E.; Levashenko , V.; Popova , Y.; Symagulov , A.; Tabynbayeva , L. Operational Mapping of Salinization Areas in Agricultural Fields Using Machine Learning Models Based on Low-Altitude Multispectral Images. <i>Drones</i> 2023, 7, 357.  <a href="https://doi.org/10.3390/drones7060357">https://doi.org/10.3390/drones7060357</a></p>
	<p>Zaitseva , E., Levashenko , V., Mukhamediev , R., Brinzei , N., Kovalenko , A., &amp; Symagulov , A. (2023). Review of Reliability Assessment Methods of Drone Swarm (Fleet) and a New Importance Evaluation Based Method of Drone Swarm Structure Analysis. <i>Mathematics</i>, 11(11), 2551. <a href="https://www.mdpi.com/2227-7390/11/11/2551">https://www.mdpi.com/2227-7390/11/11/2551</a></p>
	<p>Mukhamediev , Ravil I., Timur Merembayev , Yan Kuchin , Dmitry Malakhov , Elena Zaitseva , Vitaly Levashenko , Yelena Popova , Adilkhan Symagulov , Gulshat Sagatdinova , and Yedilkhan Amirgaliyev . Soil Salinity Estimation for South Kazakhstan Based on SAR Sentinel-1 and Landsat-8, 9 OLI Data with Machine Learning Models //Remote Sensing. – 2023. – T. 15. – no. 17. – S. 4269. <a href="https://www.mdpi.com/2072-4292/15/17/4269">https://www.mdpi.com/2072-4292/15/17/4269</a> ;  <a href="https://doi.org/10.3390/rs15174269">https://doi.org/10.3390/rs15174269</a></p>
	<p>Sadirmekova , Zh ., Sambetbayeva , M., Serikbayeva , S., Borankulova , G., Yerimbetova , A., Murzakhmetov , A. Development of an intelligent information resource model based on modern natural language processing methods. <i>International Journal of Electrical and Computer Engineering</i>. – 2023, 13, 5. – P. 5314 – 5332. DOI: 10.11591/ijece.v13i5.pp5314-5332 [Scopus Procentile - 65]</p>
	<p>Mukhitova , A., Yerimbetova , A., Cherikbayeva , L. Development of an Adaptive Graphic Web Interface Model for Editing XML Data. <i>Eastern-European Journal of Enterprise Technologies</i>. 2023, 2, 2-122, - P. 26 – 35. DOI: 10.15587/1729-4061.2023.276585 [Scopus Procentile - 47]</p>
	<p>B. Omarov , M. Baikukekov , Z. Momynkulov , A. Kassenkhan , S. Nuralykyzy , M. Iglkova . Convolutional LSTM Network for Heart Disease Diagnosis on Electrocardiograms. <i>Computers, Materials &amp; Continua</i> 2023, 76(3), 3745-3761. <a href="https://doi.org/10.32604/cmc.2023.042627">https://doi.org/10.32604/cmc.2023.042627</a> ) D. Sultan , M. Mendes , A. Kassenkhan , O. Akylbekov . Hybrid CNN-LSTM Network for Cyberbullying Detection on Social Networks using Textual Contents. <i>International Journal of Advanced Computer Science and Applications( IJACSA)</i>, Volume 14 Issue 9, 2023. <a href="https://thesai.org/Publications/ViewPaper?Volume=14&amp;Issue=9&amp;Code=IJACSA&amp;SerialNo=78">https://thesai.org/Publications/ViewPaper?Volume=14&amp;Issue=9&amp;Code=IJACSA&amp;SerialNo=78</a></p>
	<p>Kasenkhan A.M., Uskenbaeva R.K., Nuralykyzy S., Dzhunusova S.M. Ulginitanuda Koldanylatin Adisterdi karastyru . Proceedings of the International Scientific Conference on Mathematical Logic and Computer Science, Eurasian National University, Astana, 2022, October. pp. 301-304, ISBN 978-601-337-776-6</p>
	<p>Kasenkhan A.M., Uskenbaeva R.K., Moldagulova A.N., Satybaldieva R.Zh., Mukazhanov N.K., Kalpeeva Zh.B., Kasymova A.B. Artificial intelligence and the impact of ChatGPT on education. PROCEEDINGS OF THE INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE “SATPAEV READINGS – 2023. TRENDS OF MODERN SCIENTIFIC RESEARCH” 2023, April. ISBN 978-601-323-291-1</p>
	<p>B. Omarov , M. Baikukekov , Z. Momynkulov , A. Kassenkhan , S. Nuralykyzy , M. Iglkova . Convolutional LSTM Network for Heart Disease Diagnosis on Electrocardiograms. <i>Computers, Materials &amp; Continua</i> 2023, 76(3), 3745-3761. <a href="https://doi.org/10.32604/cmc.2023.042627">https://doi.org/10.32604/cmc.2023.042627</a></p>
	<p>Sakenov B., Erimbetova A.S., Dayyrbaeva E.N. Creation of a parallel corpus for the Kazakh sign language. III International Conference "Innovative technologies</p>

in transport: education, science, production." - Almaty. – 2023. - pp. 299-304.
Daiyrbayeva E., Yerimbetova A. , Maratov Zh ., Sakenov B. // Information hiding in images using neural network. 8th International Conference on Computer Science and Engineering (UBMK). – Burdur , Turkey, 2023. – P.452–456.
B. Omarov , M. Baikuvekov , Z. Momynkulov , A. Kassenkhan , S. Nuralykyzy , M. Iglukova . Convolutional LSTM Network for Heart Disease Diagnosis on Electrocardiograms. Computers, Materials & Continua 2023, 76(3), 3745-3761.
Akhmediyarova A.T.. Olzhabaeva A.B.. Namazbaev T.A. //DEVELOPMENT OF A MOBILE APPLICATION FOR SPEECH RECOGNITION FOR PEOPLE WITH DISABILITIES. Eurasian Union of Scientists. Series: technical and physical and mathematical sciences. No. 10 (113)/2023 Volume 1. - St. Petersburg, 2023. – P.3-16.

**List of scientific articles by department employees for 2023, published in republican publications with an impact factor ( IF >0, IF >0.25), including in publications recommended by the KKSON MES RK**

FULL NAME.	Position, academic degree	Name of the report and publication, year of publication, pages , page volume , including in publications recommended by the Committee for Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan pages , p.l.	Priority scientific direction, priority industrial sector (for applied and contractual work), type of project	Impact factor ( IF >0, IF >0.25) belonging to the Scopus , TomsonReuters , etc. databases .
Y. Kuchin, N. Yunicheva , R.I Mukhamediev , Mukhamedieva .		Assessment of the possibility of identifying zones of formation oxidation using machine learning methods // (KOKSON) . Izvestiya NAS RK. Series of physical and mathematical sciences. – 2023. – No. 3(347). – P. 210–222.		
Yerimbetova A., Daiyrbayeva E., Cherikbayeva L.		Embedding Hidden Information in Images Based on Bicubic Interpolation. NEWS of the National Academy of Sciences of the Republic of Kazakhstan, No. 1( 345), 2023. ISSN 1991-346X. P. 51-63		
Tsekhova A.F., Kalpeeva Zh.B., Erimbetova A.S., Alibieva Zh.M.		Review of existing and promising directions in the development of technologies for creating an information system. KazATK Bulletin No. 4 (127), 2023 DOI 10.52167/1609-1817-2023-127-4-391-398 ISSN 1609-1817 (Print) ISSN 2790-5802 (Online)		
A.T.Ayapbergenov		REVIEW OF EXISTING AND		

	a , A.F. Tsekhova, Zh.B. Kalpeeva , A.S. Erimbetova , Zh.M. Alibieva ,		PROMISING DIRECTIONS IN THE DEVELOPMENT OF TECHNOLOGIES FOR CREATING AN INFORMATION SYSTEM. KazATK Bulletin No. 4 (127), pp. 391-398, 2023.		
	Dosbaev Zh ., Sadykova M., Zhekambaeva M., Smailov N.		OKIGALARDY DYBYSTAR NEGI Z INDED TEREN OKYTAU ARGYLY ANYKTAU. Radio electronics Baylanys Askeri-engineerlik institutesnow Gylymi Enbekteri , No. 1 (51), ( Nauryz ) 2023 182 bet.		
	M. Zhekambaeva , E. Tashtay , K. Zhunusov , D. Zhamangarin .		AKPARATTYK KAUIPSSIZDIK ZHAKDAIDAK SY BAGALAU KORSETKISHIN TALDAU JONE MODELDEU. Radio electronics Baylanys Askeri- engineerlik institutesnow Gylymi Enbekteri , No. 3 (53), ( Kyrkuyek ) 2023 96 bet.		
	Tsekhova A.F., Kalpeeva Zh.B.,		Standardization. National standards of Kazakhstan for project management of IT projects. Scientific works of VIIREiS . No. 3 (53) 2023 p. 117-123.		
	Tsekhova A.F., Kalpeeva Zh.B., Erimbetova A.S., Alibieva Zh.M.		Review of existing and promising directions in the development of technologies for creating an information system. Herald KazATK No. 4 (127), 2023 DOI 10.52167/1609-1817-2023- 127-4-391-398		
	Tsekhovoi A. F. , Kalpeyeva Zh . B. , Yerimbetova A. S. , Alibiyeva Zh . M.		Methods and tools of project management in relation to is development processes. Herald KazATK No. 5 (128), 2023 DOI: <a href="https://doi.org/10.52167/1609-1817-2023-128-5">https://doi.org/10.52167/1609- 1817-2023-128-5</a>		
	Yerimbetova A., Daiyrbayeva E., Cherikbayeva L.		Embedding hidden information in images based on bicubic interpolation. News of the NAS RK. Informatics Series, (1), Almaty:2023. –P . 50-63. <a href="https://doi.org/10.32014/2022.2518-1726.168">https :// doi . org /10.32014/2022.2518-1726.168</a>		