

RAMIZ ALIGULIYEV

Corresponding member of Azerbaijan National Academy of Sciences
Professor, Doctor of Technical Sciences

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ACADEMIC QUALIFICATIONS

- **BSc/MSc:** Applied Mathematics, Azerbaijan State University (present Baku State University), Baku, Azerbaijan, 1983.
- **PhD:** Mathematics (Differential Equation), Institute of Mathematics and Mechanics, Baku, Azerbaijan, 2002.
- **DSc:** Technical Sciences (System Analysis, Control and Information Processing), Institute of Information Technology, Baku, Azerbaijan, 2010.
- **Corresponding member** of Azerbaijan National Academy of Sciences on Informatics, 2017.

PROFESSIONAL QUALIFICATIONS

- From **1983** to **1987** he worked as an engineer at the Institute of Cybernetics (now Institute of Control Systems), Baku, Azerbaijan.
- From **1988** to **2002** he worked as a leading engineer and a researcher at the Institute of Mathematics and Mechanics, Baku, Azerbaijan.
- Since **2003** he is a head of department at the Institute of Information Technology, Baku, Azerbaijan.
- Since **2023** he is a director of the Institute of Data Science and Artificial Intelligence at Azerbaijan Technical University, Baku, Azerbaijan
- He has supervised **4** PhDs and **13** Masters, currently supervising **10** PhD students.

RECOGNITION/AWARDS

- In **2020-2025** Ramiz Aliguliyev has been recognized among the world's top **2%** scientists in the field of **artificial intelligence** identified by **Stanford University**.
- In **2019**, he was invited to **Federation University Australia** to conduct joint research.

- In **2014** he was awarded with “**Taraggi**” medal by the order of the President of the Republic of Azerbaijan.
- In **2013** under the framework of the “ICT year” in the “3rd ICT Contest Competition” held by the Science Development Foundation under the President of the Republic of Azerbaijan jointly with the Ministry of Communications and Information Technologies, his article was awarded the **1st** place for the best scientific work published in ICT field.

RESEARCH INTERESTS

- Data Mining
- Big Data Analytics
- Text Summarization
- Artificial Intelligence
- Natural Language Processing
- E-government Analysis
- Scientometrics
- Evolutionary and Swarm Intelligence Algorithms

EDITORIAL, REVIEW and EXPERTISE ACTIVITY

- **Editorial board member of the journals:**
 - ✓ Problems of Information Technology
 - ✓ Problems of Information Society
 - ✓ CAAI Transactions on Intelligence Technology
 - ✓ TWMS Journal of Pure and Applied Mathematics
 - ✓ International Journal of Decision Support System Technology
 - ✓ Informatics and Control Problems
 - ✓ International Journal of Sensors, Wireless Communications and Control
 - ✓ Turkish Journal of Mathematics & Computer Science
 - ✓ Communications
 - ✓ Artificial Intelligence Evolution
 - ✓ Ukrainian Journal of Information Systems and Data Science
- He is a reviewer for more than **30** journals indexed in **Web of Science** and **Scopus**.
- He has been a member of the program/organizing committees of more than 30 international and local conferences.
- He is a member of the dissertation council at the Institute of Information Technology.

ACADEMIC NETWORKING

- **Google Scholar:**
https://scholar.google.com/citations?hl=en&user=cV0HqdgAAAAJ&view_op=list_works&sortby=pubdate
- **Scopus:**

<https://www.scopus.com/authid/detail.uri?authorId=35561067300>

▪ **ORCID:**

<https://orcid.org/0000-0001-9795-1694>

▪ **Web of Science** (ResearcherID: A-1072-2013):

<https://www.webofscience.com/wos/author/record/1189983>

▪ **ResearchGate:**

<https://www.researchgate.net/profile/Ramiz-Aliguliyev>

GRANTS

He was project manager/participant of the

- 6 grants supported by Azerbaijan Science Foundation and
- 5 grants supported by Science Fund of the State Oil Company of the Azerbaijan Republic.

SELECTED PUBLICATIONS

- R. Alguliyev, **R. Aliguliyev**, A. Bagirov & M. Aliyev, "lbk-means: An iterative batch k-means algorithm for big data clustering", **Kybernetika**, vol.61, no.4, pp.492-508, 2025. <https://doi.org/10.14736/kyb-2025-4-0492> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, & L. Sukhostat, "Human gender classification and age estimation based on gait images using deep learning", **Multimedia Tools and Applications**, pp.1-15, 2025. <https://doi.org/10.1007/s11042-025-21075-8> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, & L. Sukhostat, "An approach for assessing the functional vulnerabilities criticality of CPS components", **Cyber Security and Applications**, vol.3, 100058, 2025. <https://doi.org/10.1016/j.csa.2024.100058> (Scopus)
- R. Alguliyev, **R. Aliguliyev**, & N. Adigozalova, "MCDM approach for performance evaluation of the research institutions", **Problems of Information Technology**, vol.16, no.2, pp.23-44, 2025. <http://doi.org/10.25045/jpit.v16.i2.03>
- **R. Aliguliyev** & T. Badalov, "Exploring big data clustering: approaches, algorithms, and platforms", **Reliability: Theory & Applications**, vol.20, no.SI 7(83), pp.177-187, 2025. <https://doi.org/10.24412/1932-2321-2025-783-177-187> (Scopus)
- R. Aliguliyev & S. Tahirzada, "Performance comparison of k-means, parallel k-means and k-means++", **Reliability: Theory & Applications**, vol.20, no.SI 7(83), pp.169-176, 2025. <https://doi.org/10.24412/1932-2321-2025-783-169-176> (Scopus)
- R. Alguliyev, **R. Aliguliyev**, & F. Yusifov, "Conceptual model of Azerbaijani language ecosystem in the electronic government", **Comparative Cultural Studies: European and Latin American Perspectives**, no.20, pp.1-24, 2025. <https://doi.org/10.46661/ccselap-11174>
- R. Alguliyev, **R. Aliguliyev**, & L. Sukhostat, "Method for quantitative risk assessment of cyber-physical systems based on vulnerability analysis", **Kybernetika**, vol.60, no.6, pp.779-796, 2024. <https://doi.org/10.14736/kyb-2024-6-0779> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, & L. Sukhostat, "An approach for business email compromise detection using NLP and deep learning", **2024 IEEE 18th International Conference on Application of Information and Communication Technologies**, pp.1-4, Turin, Italy, 25-27 September 2024. <https://doi.org/10.1109/AICT61888.2024.10740431> (WoS; Scopus)

- R. Alguliyev, **R. Aliguliyev**, & L. Sukhostat, "Radon transform based malware classification in cyber-physical system using deep learning", **Results in Control and Optimization**, vol.14, 100382, 2024. <https://doi.org/10.1016/j.rico.2024.100382> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, Y. Imamverdiyev, & L. Sukhostat, "Analysis of the demographic situation in the Republic of Azerbaijan: challenges and opportunities for the country", **Electronic Government, an International Journal**, vol.202, no.22, pp.202-222, 2024. <https://doi.org/10.1504/EG.2024.136982> (WoS; Scopus)
- A. Bagirov, **R. Aliguliyev**, & N. Sultanova, "Finding compact and well-separated clusters: Clustering using silhouette coefficients", **Pattern Recognition**, vol.135, 109144, 2023. <https://doi.org/10.1016/j.patcog.2022.109144> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, & R. Alakbarov, "Constrained k-means algorithm for resource allocation in mobile cloudlets", **Kybernetika**, vol.59, no.1, pp.88-109, 2023. <https://doi.org/10.1016/10.14736/kyb-2023-1-0088> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, Y. Imamverdiyev, & L. Sukhostat, "History matching of petroleum reservoirs using deep neural networks", **Intelligent Systems with Applications**, vol.16, 200128, 2022. <https://doi.org/10.1016/j.iswa.2022.200128> (WoS; Scopus)
- **R. Aliguliyev** & N. Adigozalova, "h-type indices for multiple authorship papers based on "relative first author" principle", **COLLNET Journal of Scientometrics and Information Management**, vol.16, no.2, pp.305-330, 2022. <https://doi.org/10.1080/09737766.2022.2098875> (WoS)
- R. Alguliyev, **R. Aliguliyev**, & L. Sukhostat, "Parallel batch k-means for Big data clustering", **Computers & Industrial Engineering**, vol.152, 107023, 2021. <https://doi.org/10.1016/j.cie.2020.107023> (WoS; Scopus)
- R. Alguliyev, Y. Imamverdiyev, R. Mahmudov, & **R. Aliguliyev**, "Information security as a national security component", **Information Security Journal**, vol.30, no.1, pp.1-18, 2021. <https://doi.org/10.1016/10.1080/19393555.2020.1795323> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, & F. Yusifov, "Graph modelling for tracking the COVID-19 pandemic spread", **Infectious Disease Modelling**, vol.6, pp.112-122, 2021. <https://doi.org/10.1016/j.idm.2020.12.002> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, & L. Sukhostat, "Weighted consensus clustering and its application to big data", **Expert Systems with Applications**, vol.150, 113294, 2020. <https://doi.org/10.1016/j.eswa.2020.113294> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, & L. Sukhostat, "Efficient algorithm for big data clustering on single machine", **CAAI Transactions on Intelligence Technology**, vol.5, no.1, pp.9-14, 2020. <https://doi.org/10.1049/trit.2019.0048> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, & F. Yusifov, "Modified fuzzy TOPSIS+TFNs ranking model for candidate selection using the qualifying criteria", **Soft Computing**, vol.24, no.1, pp.681-695, 2020. <https://doi.org/10.1007/s00500-019-04521-2> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, & F. Abdullayeva, "Multidisciplinary study of the problems of big data technologies in the oil and gas industry", **International Journal of Oil Gas and Coal Technology**, vol.23, no.1, pp.92-105, 2020. <https://doi.org/10.1504/IJOGCT.2020.104975> (WoS; Scopus)

- R. Aliguliyev, R. Alakbarov, & S. Tahirzada, "An architecture for big IoT data analytics in the oil and gas industry", **International Journal of Hyperconnectivity and the Internet of Things**, vol.4, no.2, pp.25-37, 2020. <https://doi.org/10.4018/IJHIOT.2020070102> (WoS)
- R. Alguliyev, **R. Aliguliyev**, & F. Abdullayeva, "Privacy-preserving deep learning algorithm for big personal data analysis", **Journal of Industrial Information Integration**, vol.15, pp.1-14, 2019. <https://doi.org/10.1016/j.jii.2019.07.002> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, N. Isazade, A. Abdi, & N. Idris, "COSUM: text summarization based on clustering and optimization", **Expert Systems**, vol.36, no.1, e12340, 2019. <https://doi.org/10.1111/exsy.12340> (WoS; Scopus)
- R. Alguliyev, **R. Aliguliyev**, & G. Niftaliyeva, "A method for social network extraction from e-government", **International Journal of Information Systems in the Service Sector**, vol.11, no.3, pp.37-55, 2019. <https://doi.org/10.4018/IJISSS.2019070103> (WoS; Scopus)
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- R. Alguliyev, **R. Aliguliyev**, & F. Yusifov, "MCDM for candidate selection in e-voting", **International Journal of Public Administration in the Digital Age**, vol.6, no.2, pp.35-48, 2019. <https://doi.org/10.4018/IJPADA.2019040103> (WoS; Scopus)
- R. Aliguliyev & N. Adigozalova, "ht-index and At-index for evaluating scientific performance of researchers", **2019 IEEE 13th International Conference on Application of Information and Communication Technologies**, pp.1-4, Baku, Azerbaijan, 23-25 October 2019. (WoS; Scopus) <https://doi.org/10.1109/AICT47866.2019.8981764>
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- R. Muhamedyev, **R. Aliguliyev**, Z. Shokishalov, & R. Mustakayev, "New bibliometric indicators for prospectivity estimation of research fields", **Annals of Library and Information Studies**, vol.65, no.1, pp.62-69, 2018. <https://doi.org/10.56042/alis.v65i1.18656> (WoS; Scopus)
- A. Abdi, S. Shamsuddin, N. Idris, R. Alguliyev, & **R. Aliguliyev**, "A linguistic treatment for automatic external plagiarism detection", **Knowledge-Based Systems**, vol.135, pp.135-146, 2017. <https://doi.org/10.1016/j.knosys.2017.08.008> (WoS; Scopus)
- A. Abdi, N. Idris, R. Alguliev, & **R. Aliguliyev**, "Query-based multi-documents summarization using linguistic knowledge and content word expansion", **Soft Computing**, vol.21, pp.1785-1801, 2017. <https://doi.org/10.1007/s00500-015-1881-4> (WoS; Scopus)

- R. Alguliyev & **R. Aliguliyev**, “Modifications to the journal impact factor”, **COLLNET Journal of Scientometrics and Information Management**, vol.11, no.1, pp.25-43, 2017. <https://doi.org/10.1080/09737766.2016.1235251> (WoS)
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- R. Alguliev, **R. Aliguliyev**, & N. Isazade, “MR&MR-Sum: maximum relevance and minimum redundancy document summarization model”, **International Journal of Information Technology and Decision Making**, vol.12, no.3, pp.361-393, 2013. <https://doi.org/10.1142/S0219622013500156> (WoS; Scopus)
- R. Alguliev, **R. Aliguliyev**, & N. Isazade, “CDDS: Constraint-driven document summarization models”, **Expert Systems with Applications**, vol.40, no.2, pp.458-465, 2013. <https://doi.org/10.1016/j.eswa.2012.07.049> (WoS; Scopus)
- R. Alguliev, **R. Aliguliyev**, & N. Isazade, “Formulation of document summarization as a 0-1 nonlinear programming problem”, **Computers & Industrial Engineering**, vol.64, no.1, pp.94-102, 2013. <https://doi.org/10.1016/j.cie.2012.09.005> (WoS; Scopus)
- R. Alguliev, **R. Aliguliyev**, & N. Isazade, “DESAMC+DocSum: differential evolution with self-adaptive mutation and crossover parameters for multi-document summarization”, **Knowledge-Based Systems**, vol.36, pp.21-38, 2012. <https://doi.org/10.1016/j.knosys.2012.05.017> (WoS; Scopus)
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