

Eduard MANZIUK

Sc.Dr. (Computer Science), Ph.D (Engineering Science)

Associate professor Computer Science Department
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Personal information:

Date of birth: 15.09.1976

Place of birth:
Khmelnytskyi region, Ukraine

Single

Contacts:

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Experience:

- 2021-present – Senior Lecturer, Associate Professor, Department of Computer Science, Khmelnytskyi National University, Khmelnytskyi, Ukraine
- 2002-2004 – Assistant Professor, Department of Information technology design, Khmelnytskyi National University, Khmelnytskyi, Ukraine

Educational background:

- 2023 – Sc. Dr., Khmelnytskyi State University, Khmelnytskyi, Ukraine
- 2004 – Ph.D., Khmelnytskyi State University, Khmelnytskyi, Ukraine
- 1998-2001, Ph.D. studies, Podillia University of Technology, Khmelnytskyi, Ukraine
- 1993-1998, Podillia University of Technology, Specialist, Engineering Science, Khmelnytskyi, Ukraine

Research interests:

AI, Ethic AI, Trusty AI, ML,
Analysis of textual information,
Modeling, classification, and
clustering of data,
Visual analytics.

R&D projects:

- executor 2 R&D projects commissioned by the MES of Ukraine, NAS of Ukraine, The Science and Technology Center in Ukraine (STCU) (0122U001731 Development of theoretical foundations and new methods of processing, recognition, forecasting of human-oriented processes and systems to solve problems of artificial intelligence; 0121U112025 Development of information technology for making human-controlled critical and safety decisions based on mental-formal models of machine learning)

Editor/Reviewer:

- Fourth International Workshop on Computer Modeling and Intelligent Systems (CMIS-2021)
- 3rd International Workshop on Intelligent Information Technologies & Systems of Information Security (IntellITIS-2020)
- 9th International Conference "Information Control Systems & Technologies" (ICST-2020)
- IGI Global: International Academic Publisher
- Journal of Intelligent and Fuzzy Systems, ISSN: 18758967 – Editorial Board Member



Public profiles:

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Researcher ID [AAG-9231-2019](#)

Dblp <https://dblp.org/pid/251/9020.html>

Google Scholar ID [bwW-dBEAAAJ&hl](#)

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Selected publications

Papers in Journals/Proceedings

1. Krak I., Barmak O., Manziuk E. Using visual analytics to develop human and machine-centric models: A review of approaches and proposed information technology. *Computational Intelligence*, 2022. Vol. 38, No 3. Pp 921–946. URL: <https://doi.org/10.1111/coin.12289>. – Q1
2. Manziuk E. Influence of geometric parameters of the rotary hook on interaction of its elements in high-speed modes sewing machine. *International Journal of Clothing Science and Technology*. 2018. Vol. 30, No. 6. pp. 828–838. <https://doi.org/10.1108/IJCST-04-2018-0053>. – Q2
3. Krak Iu. V., Kasianiuks V. S., Kudin H. I., Barmak O. V., Manziuk E. A. Multivariate scaling of the characteristic features based on pseudo-inverse operations for recognition problems solving. *Pattern Recognition and Image Analysis*, 2020. Vol. 30, No 2. Pp. 184–191. URL: <https://doi.org/10.1134/S1054661820020078>. Q3
4. Manziuk E. A., Barmak A. V., Krak Y. V., Kasianiuks V. S. Definition of information core for documents classification. *Journal of Automation and Information Sciences*, 2018. Vol. 50, No 4. Pp. 25–34. URL: <https://doi.org/10.1615/JAutomatInfScien.v50.i4.30>. Q3
5. Manziuk E. A., Wójcik W., Barmak O. V., Krak I. V., Kulias A. I., Drabovska V. A., Puhach V. M., Sundetov S., Mussabekova A. Approach to creating an ensemble on a hierarchy of clusters using model decisions correlation. *Przeglqd Elektrotechniczny*, 2020. Vol. 96, No 9. Pp. 108–113. URL: <https://doi.org/10.15199/48.2020.09.23>. Q3
6. Barmak O., Manziuk E., Krak I. Classification based hierarchical clustering prediction variability in the ensembles of models using a statistical Approach. *The 2020 IEEE 15th International Scientific and Technical Conference "Computer Science and Information Technologies": Proceedings* (Lviv–Zbarazh (Ukraine), September 23–26, 2020). Vol. 1. Pp. 11–14. URL: <https://doi.org/10.1109/CSIT49958.2020.9322019>.
7. Krak I., Kudin H., Barmak O., Manziuk E., Smolarz A., Mamyrbaev O. Method and algorithm of the piecewise-hyperplane clusterization using tools of pseudo-inverse matrices. *SPIE – The International Society for Optical Engineering "Photonics Applications in Astronomy, Communications, Industry, and High-Energy Physics Experiments 2019": Proceedings* (Wilga (Poland), November 06, 2019). Vol. 11176. Pp. 1–8. URL: <https://doi.org/10.1117/12.2537417>.

Book/Chapter Book

1. Mazurets O., Barmak O., Krak I., Manziuk E., Bahrii R. Method for adaptive semantic testing of educational materials level of knowledge. *Lecture Notes on Data Engineering and Communications Technologies*. 2022. Vol. 77. Pp. 491–506. https://doi.org/10.1007/978-3-030-82014-5_33.
2. Krak Iu., Kruchynin K., Barmak O., Manziuk E., Kruchinin S. Visual analytics in machine training systems for effective decision. *Advanced Nanomaterials for Detection of CBRN. NATO Science for Peace and Security Series A: Chemistry and Biology*. 2020. Pp. 327–338. URL: https://doi.org/10.1007/978-94-024-2030-2_25.
3. Krak I., Barmak O., Manziuk E. Visual analytics to build a machine learning model. *Research Advancements in Smart Technology, Optimization, and Renewable Energy*. IGI Global, 2021. Pp. 313–329. <https://doi.org/10.4018/978-1-7998-3970-5.ch015>