PERSONAL INFORMATION

Assoc. Prof. Dr. Kanita Karađuzović-Hadžiabdić



International University of Sarajevo, Hrasnička cesta 15, 71210, Sarajevo

+387 33 957218

kanita@ius.edu.ba, kanita.hadziabdic@gmail.com

Sex Female | Nationality Bosnian

WORK EXPERIENCE

June 2022 – Present	**Vice Rector for International Cooperation and Research,** Computer Sciences and Engineering Program, Faculty of Engineering and Natural Sciences, International University of Sarajevo.
April 2022-Present	**Associate Professor,** Computer Sciences and Engineering Program, Faculty of Engineering and Natural Sciences, International University of Sarajevo.
April 2022 – June 2022	**Program Coordinator of Computer Sciences and Engineering**, Faculty of Engineering and Natural Sciences, International University of Sarajevo.
2017- 2022	**Assistant Professor, Computer Sciences and Engineering Program,** Faculty of Engineering and Natural Sciences, International University of Sarajevo.
2017-2020	**Acting Head of Department of Engineering and Program Coordinator of Computer Sciences and Engineering,** Faculty of Engineering and Natural Sciences, International University of Sarajevo.
2017-2018	**Software Engineering Program Coordinator**, Faculty of Engineering and Natural Sciences, International University of Sarajevo.
2016-2017	**Lecturer, Computer Sciences and Engineering**, IUS.
2011-2016	**Senior Assistant,** Faculty of Engineering and Natural Sciences, IUS
2008-2010	**Teaching Assistant,** Faculty of Engineering and Natural Sciences, IUS
2006 – 2008	**Director**, InfoBee Agency, Sarajevo, Bosnia and Herzegovina.
2004 – 2006	**Software Engineer,** Cost Engineering Software, Zwijndrecht, The Netherlands.
2003 – 2004	**Software Engineer**, Unet, Almere, The Netherlands.
2001-2002	**Software Engineer,** Zira, Sarajevo, BiH
2000	**Software Engineer,** Hermes SoftLab, Sarajevo, Bosnia and Herzegovina.
1999	**Software Engineer,** Saint Mary's University, Halifax, Nova Scotia, Canada

QUALITY ASSURANCE AND ACCREDITATION EXPERIENCE

2024 -	Active involvement in overseeing and coordinating institutional and study programme accreditation processes at the International University of Sarajevo (IUS), including national institutional accreditation by HEA (2024), national programme accreditation, international institutional accreditation by YÖKAK/THEQC (2026) and international programme accreditation processes with ASIIN, FIBAA and AQAS, working closely with programme coordinators, Strategic Development Office (SDO) and university teams to ensure compliance with accreditation standards and support continuous quality enhancement.

EDUCATION AND TRAINING

2016 **PhD in Computer Science and Engineering,** International University of Sarajevo, Sarajevo, Bosnia and Herzegovina.

2001 **MSc. in Computer Science,** Oxford University, Oxford, United Kingdom.
1999 **BSc. in Applied Mathematics and Computer Science,** Eastern Mediterranean University, Famagusta, Turkish Republic of Northern Cyprus.

PERSONAL SKILLS

Mother tongue(s) Bosnian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Dutch	Enter level	Enter level	Enter level	Enter level	Enter level
	A1	A1	A1	A1	A1
Turkish					
	A1	A1	A1	A1	A1

Communication skills
- Excellent

Organisational / managerial skills
- Leadership as Vice-Rector for International Cooperation and Research overseeing strategic initiatives, coordinating International Relations Office, Office of Sponsored Projects, Library, and facilitating inter-institutional agreements.
- Leadership as Programme Coordinator of Computer Sciences and Software Engineering study programmes at IUS, including curriculum development, staff coordination and student support.
- Strong project and team management skills highlighted by my role as Project Coordinator of IUS team for Horizon 2020, an EU-funded project.

Programming languages
- Java, C++, R, Python

Research interests Data Science, Machine Learning, Artificial Intelligence with the focus on applications in biomedical data.

Teaching experience Lectured following courses: Advanced Programming, Software Engineering, Programming Languages, Machine Learning, Human Computer Interaction, High Dynamic Range Imaging, User Interface Design, Social Legal and Ethical Issues in Computer Science

Driving licence Replace with driving licence category/-ies. Example:
- B

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Projects

1. The Impact of Innovations and Robotics on the Cognitive Thinking of High School Students, Ministry of Higher Education and Youth, Sarajevo Canton. Sept 2024 – Feb 2026. Project Coordinator, Budget: 16, 000 EUR
2. Innovative AI framework to enable the detection, classification and tracking of killer drones, Ai4CUAV, NATO SPS Project, 2023 – 2026, Project member (researcher)
3. A diagnostic test to improve surveillance and care in COVID-19 patients, H2020-SC1-PHE-CORONAVIRUS-2020-2B, Medical technologies, Digital tools and Artificial Intelligence analytics to improve surveillance and care at high Technology Readiness Levels, under the call “H2020-SC1-PHE-CORONAVIRUS-2020-2-CNECT”. Nov 2020 – April 2023. Project Coordinator at IUS. IUS Budget: 60,000.00 EUR.
4. IT Sector On-the-Job Training Programe, Turkiye 2022-2023, BHPP -Bosnia and Herzegovina Partnership Programme, Project member
5. Positioning Level V Qualification in BiH, EU Delegation to BiH, 2013-2015, Project member. IUS Budget: 90,000.00 EUR.

Conference Organizatiosn and Activities

- Organizer of COST Action CardioPharmaGENET, CA24165 Extended Core Group Meeting, International University of Sarajevo, Sarajevo, BiH. October, 2026,
- Organizer of COST Action AtheroNET, CA21125 Management Committee and Working Group Meeting, International University of Sarajevo, Sarajevo, BiH. 14-16 May, 2025,
- Organizer of CA18131 COST Action training school, International University of Sarajevo, BiH, September 2019.
- Member of organizing committee of 3rd International Conference on Computer Science and Engineering, (Proceedings of IEEE), Sarajevo, BiH, 2018
- Scientific Committee member of UBMK, an IEEE conference, 2018-present
- Member of editorial board for SouthEast Europe Journal of Soft Computing, as well as the organizer for the corresponding journal’s conference organizer, 2012-present
- Organizer of Soft Computing Regional Conference, IUSSCRG, International University of Sarajevo, Sarajevo, BiH, 2012-2019
- Organizer of CA18131 COST Action training school, International University of Sarajevo, BiH, September 2019.
- Member of organizing committee of 3rd International Conference on Computer Science and Engineering, (Proceedings of IEEE), Sarajevo, BiH, 2018
- Scientific Committee member of UBMK, an IEEE conference, 2018-present
- Member of editorial board for SouthEast Europe Journal of Soft Computing, as well as the organizer for the corresponding journal’s conference organizer, 2012-present
- Organizer of Soft Computing Regional Conference, IUSSCRG, International University of Sarajevo, Sarajevo, BiH, 2012-2019

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Publications

1. The Compromise Between Interpretability and Performance, or, a Review of Machine Learning Methods for Collective Variable Discovery, Becirovic F., Asic A., Merdovic N., Hunduri Hiyari M., Karaduzovic-Hadziabdic K., Spahic L., MEDICON 2026, Innovating Bioengineering Through Next-Generation Computational Approaches, Springer Nature Switzerland. https://doi.org/10.1007/978-3-032-37739-5_1

2. Evaluating Electro-Optical and Infrared Thermal Modalities for Counter-UAV Detection Under Daytime and Nighttime Conditions, Büyükdağlı Ö., Karaduzovic-Hadziabdic K., Abd Almisreb A., Yaman E., Cantelli-Forti A. (2026). accepted at the 11th International Conference on Smart and Sustainable Technologies (SpliTech 2026), Split–Bol, Croatia.

3. Use of artificial intelligence and machine learning for multiomics, Kanita Karaduzovic-Hadziabdic, Aleksandra Gruca, Transcriptomics in Atherosclerosis, Transcriptomics in Atherosclerosis, pp 223-242, Elsevier, 2026

4. Integrating genomics, transcriptomics, proteomics, metabolomics, and other omics, Panagiotis Alexiou, Aleksandra Gruca, José Basílio, Kanita Karaduzovic-Hadziabdic, David P Kreil, Stephanie Bezzina WettingerTranscriptomics in Atherosclerosis, pp 223-242, Elsevier, 2026

5. *Bottlenecks in advancing and applying multiomic data integration—common data resources as rate-limiting drivers—the high-impact use case of atherosclerotic cardiovascular disease,* S Bezzina Wettinger, K Karaduzovic-Hadziabdic, et al. Briefings in Bioinformatics, Oxford University Press, 26 (5), 2025, https://doi.org/10.1093/bib/bbaf526

6. Long noncoding RNAs and machine learning to improve cardiovascular outcomes of COVID-19 K Karaduzovic-Hadziabdic, M Adilović, L Zhang, A Lumley, et al. Circulation, Lippincott Williams & Wilkins, vol 150, issue Suppl_1, pp:A4117883-A4117883, 2024
7. Prediction of COVID-19 severity using machine learning K Karaduzovic-Hadziabdic, M Adilovic, L Zhang, AI Lumley, et al. Clinical and translational medicine 14 (10), 2024
8. Machine learning for catalysing the integration of noncoding RNA in research and clinical practice, D de Gonzalo-Calvo, K Karaduzovic-Hadziabdic, LT Dalgaard, et al. EBioMedicine, Elsevier, Vol. 106, 2024.
9. Development of a long noncoding RNA-based machine learning model to predict COVID-19 in-hospital mortality, Y Devaux, L Zhang, AI Lumley, K Karaduzovic-Hadziabdic, V Mooser, et al. , Nature communications 15 (1), 2024.
10. M. Sopic, K Karaduzovic-Hadziabdic et al. “Transcriptomic research in atherosclerosis: Unravelling plaque phenotype and overcoming methodological challenges” , Journal of Molecular and Cellular Cardiology Plus, Elsevier, 2023, DOI: https://doi.org/10.1016/j.jmccpl.2023.100048
11. LJ Marcos-Zambrano, VM Lopez-Molina, B Bakir-Laura Judith Marcos-Zambrano, Víctor Manuel López-Molina, Burcu Bakir-Gungor, Marcus Frohme, Kanita Karaduzovic-Hadziabdic, Thomas Klammsteiner, Eliana Ibrahimi, Leo Lahti, et al. “A toolbox of machine learning software to support microbiome analysis”, Frontiers in Microbiology, Frontiers, vol. 14, 2023. DOI: https://doi.org/10.3389/fmicb.2023.1250806
12. K. Karaduzovic-Hadziabdic, R. Spahic, E. Tahirovic, “Evaluation of IBM Watson Natural Language Processing Service to predict influenza-like illness outbreaks from Twitter data”, Periodicals of Engineering and Natural Sciences, vol. 10, no. 1, pp. 122-137, 2022, DOI: http://dx.doi.org/10.21533/pen.v10i1.2454 , url: http://pen.ius.edu.ba/index.php/pen/article/download/2454/1037
13. A. Hromic-Jahjefendic, D. Ler, Dz. Medjedovic, E. Tahirovic, E, Karamehmedovic, K. Karaduzovic-Hadziabdic, M. Suljagic, M. Hadziabdic, N. Rabiei, R. Palalic, B. Durakovic, “Master studies in Bioanalytical technologies – Instructions for lecturers. ” International University of Sarajevo, ISBN: 978-9958-896-49-1, January 2021 https://doi.org/10.3389/fmicb.2023.1250806
14. K. Karaduzovic-Hadziabdic, A. Peters, “Artificial intelligence in clinical decision-making for diagnosis of cardiovascular disease using epigenetics mechanisms”, in “Epigenetics in Cardiovascular Disease”, Y. Devaux, E. L. Robinson (Editors)

14. A. Kutlay, K. Karaduzovic-Hadziabdic, “Static based classification of malicious software using machine learning methods”, Springer, Advanced Technologies, Systems, and Applications IV, IAT 2019, Lecture Notes in Network and Systems, Vol 83, pp 621-628, 2019, ISBN: 978-3-030-24985-4, https://doi.org/10.1007/978-3-030-24986-1_49 ,

15. K. Karaduzovic-Hadziabdic, J. Hasic Telalovic, R. K. Mantiuk, “Assessment of multi-exposure HDR image deghohsting methods”, Computers and Graphics, Elsevier, Vol. 63, pp. 1-17, April 2017, https://doi.org/10.1016/j.cag.2017.01.002

16. K. Karaduzovic-Hadziabdic, R. Spahic, “Comparison of Machine Learning Methods for Code Smell Detection Using Reduced Features”, 3rd International Conference on Computer Science and Engineering, (Proceedings of IEEE), pp. 670-672, https://doi.org/10.1109/UBMK.2018.8566561, 2018

17. R. Spahic, K. Karaduzovic-Hadziabdic, “Class Level Code Smell Detection using Machine Learning Methods”, Conference on Computational Methods and Telecommunication in Electrical Engineering and Finance, Sarajevo, BiH, 2018

18. Ahmet Oguz Akyuz, Okan Tarhan Tursun, Jasminka Hasić Telalović, Kanita Karađuzović-Hadžiabdić, “High Dynamic range Video, Concepts, Technologies and Applications” (Book chapter “Ghosting in HDR video”, Elsevier, 2017.)

19. Kanita Karađuzović-Hadžiabdić, Jasminka Hasić Telalović, Rafal Mantiuk, “Subjective and objective evaluation of multi-exposure high dynamic range image deghosting methods”, In Proceedings of EG 2016-Short Papers, The Eurographics Association”, 2016. ISSN: 1017-4656, DOI: 10.2312/egsh.20161007,

20. Kanita Karađuzović-Hadžiabdić, Jasminka Hasić Telalović, Rafal Mantiuk, “Evaluation of Noise Suppression and Luminance Reconstruction in High Dynamic Range Image Deghosting Methods”, In Proceedings of IEEE, 2015 XXV International Conference on Information, Communication and Automation Technologies (ICAT 2015), 2015. DOI: 10.1109/ICAT.2015.7340511

21. Kanita Karaduzovic-Hadziabdic, Jasminka Hasić Telalović, Rafal Mantiuk, “Expert evaluation of deghosting algorithms for multi-exposure high dynamic range imaging”, In Proceedings of HDRi2014-Second International Conference and SME Workshop on HDR imaging, 2014.

22. Kanita Karađuzović-Hadžiabdić, Rasit Koker, “Diagnosis of Heart Disease using a Committee Machine Neural Network”, In Proceedings of the 9th International Conference on Applied Informatics, (ICAI 2014), 2014 pp. 351-360, DOI: 10.14794/ICAI.9.2014.1.351

23. Kanita Karađuzović-Hadžiabdić, Sadina Gagula Palalić, “Chromosome Polarity Determination Based on the Total Length and Centromere Location Using Machine Learning Algorithms ”, Southeast Europe Journal of Soft Computing, 3(2), 2014. pp 1-5, ISSN 2233 – 1859

24. Kanita Karađuzović-Hadžiabdić, Jasminka Hasić Telalović, Rafal Mantiuk, “Comparison of Deghosting Algorithms for Multi-exposure High Dynamic Range Imaging”, In Proceedings of the 29th Spring Conference on Computer Graphics. ACM, pp 21-28, 2013.

25. Kanita Karađuzović-Hadžiabdić, Jasminka Hasić Telalović, “State-of-the-art deghosting algorithms for high dynamic range imaging”, European Conference in Technology and Society, (EuroTecS 2013), 2013.

26. Kanita Karađuzović-Hadžiabdić, Jasminka Hasić Telalović, “Report: State-of-the-art deghosting algorithms for high dynamic range imaging”, Southeast Europe Journal of Soft Computing, 2(2), pp 88-92, ISSN 2233 – 1859, 2013.

27. Kanita Karađuzovć-Hadžiabdić, “Classification of chromosomes using nearest neighbor classifier”, Southeast Europe Journal of Soft Computing, 1(2), 2012.pp 12-15. ISSN: 2233 – 1859, 2012

28. Kanita Karađuzovć-Hadžiabdić, “Modelling and Analysing the TLS protocol using Casper and FDR”, Proceedings of IEEE 2012 IX International Symposium on Telecommunications, (BIHTEL), 2012.

29. Kanita Karađuzović-Hadžiabdić, Nesibe Merve Demir, “Teaching Neural Networks to Detect Authors of Texts”, Southeast Europe Journal of Soft Computing, 1(1), pp 73-80. ISSN: 2233 – 1859, 2012.

30. Haris Memić, Alma Husagić-Selman, Kanita Karađuzović-Hadžiabdić, “Triadic Patterns of Friendships in YouTube Groups”, In Proceedings of the 12th IEEE International Symposium on Computational Intelligence and Informatics, (CINTI 2011), 2011. pp 501-506 DOI: 10.1109/CINTI.2011.6108558

31. Kanita Karađuzović-Hadžiabdić, Rasit Koker, “Design and Implementation of a Vision System for Elderly-Feeding-Chair Robot”, In Proceedings of The IV International Scientific and Technical Conference, Computer Science and Information Technologies, (CSIT'2009), pp 88-91, 2009.