K. Kapetanovica 34
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Belma Ramić-Brkić

PERSONAL DATA:

Occupation: Associate Professor
Nationality: Bosnian
Gender: Female

EDUCATION:

2012   **PhD in Engineering**
            University of Warwick, United Kingdom
2009   **Master of Science with Honors**
            Faculty of Electrical Engineering, Sarajevo
            Department of Computer Science
2006   **Bachelor of Science with Honors**
            Faculty of Electrical Engineering, Sarajevo
            Department of Computer Science

PROFESSIONAL EXPERIENCE:

2020 – Present   **Associate Professor**
                      Computer Science and Information Systems Department
                      Sarajevo School of Science and Technology
2017 – 2025   **Dean**
                      Computer Science and Information Systems Department
                      Sarajevo School of Science and Technology
2015 – 2017   **Vice Dean of Undergraduate Program**
                      Computer Science and Information Systems Department
                      Sarajevo School of Science and Technology
2014 – 2020   **Assistant Professor**
                      Computer Science and Information Systems Department
                      Sarajevo School of Science and Technology
                      Courses: Computer Graphics, Databases for Economists, Human Computer
                      Interaction, Data Visualization (Graduate course)
2009 – 2013   **Senior Teaching Assistant / Lecturer**
                      Computer Science and Information Systems Department
                      Sarajevo School of Science and Technology
                      Courses: Computer Graphics, Databases, Statistics, Discrete Math
2006 – 2009   **Teaching Assistant**
                      Computer Science and Information Systems Department
                      Sarajevo School of Science and Technology
                      Courses: Computer Graphics, Databases
2005 – 2006   **Teaching Demonstrator**
                      Computer Science and Information Systems Department
                      Sarajevo School of Science and Technology
                      Course: Computer Graphics
2005 – 2006   **Teaching Demonstrator**
                      Faculty of Electrical Engineering, Sarajevo
                      Course: Computer Graphics
Jun 2005 – Oct 2005   **Developer**
                      Siemens, Sarajevo
2003 – 2004   **Developer**
                      Oracle, Sarajevo

HONORS:

2006	Faculty of Electrical Engineering, Sarajevo, Honors Graduate
2005 – 2007	Ministry of Education Academic scholarship
2002 – 2005	Ministry of Education and Novi Grad Municipality, Academic scholarship

AWARDS:

2023   **The Excellence in Research Award**
For the best research project during the academic year 2022/2023.

2022   **The Faculty Excellence Award**
For the best performing department (CSIS) during the academic year 2021/2022.

2020   **The Student Award**
For the best professor in the Game Design and Development programme during the academic year 2019/2020.

2019   **The Excellence in Research Award**
For the best research project during the academic year 2018/2019.

2016   **The Faculty Excellence Award**
For the best performing department (CSIS) during the academic year 2015/2016.

2016   **2nd place, FIT Coding Challenge**
Mentored a student who presented an educational game *Kockica*, developed for kids with autism.

2016   **3rd place, FIT Coding Challenge**
Mentored a group of students who presented an educational game *Veseli Park*, developed for kids with autism.

2015   **The EX SOLO AD SOLEM Award**
For contribution to the development and progress of SSST over a ten-year period.

2007 - 2011   **Warwick Postgraduate Research Scholarship and Overseas Research Student Awards Scheme**

LANGUAGES:

Mother tongue:	Bosnian
Other languages:	English (fluent), German (basic)

PROJECTS:

1. Funded by EIT HEI Initiative: HMI2MARKET – Upgrading University Entrepreneurial Infrastructures for Human-Machine Interaction Innovations, 2025–2027 (EUR €1,334,750.00) – Partner coordinator.
2. ERASMUS-EDU-2025-CBHE-STRAND-1 WE-MIND – Advancing Mental Health and Innovation in Western Balkans Higher Education Through Digital Transformation, 2025–2027 (EUR €366,453.00) – Partner coordinator.
3. ERASMUS-EDU-2024-VIRT-EXCH VISTA – Virtual Exchange, Soft Skills Training in the Age of Digitalization, 2024–2027 (EUR €498,142.00) – Partner coordinator
4. ERASMUS-EDU-2024-CBHE-STRAND-2 DELTA – Advancing Data Literacy and Innovation in the Western Balkans, 2024-2027 (EUR €794,297.00) – Partner coordinator.
5. Erasmus+ KA220-HED-4CF0BAB9 XR escape room – soft skills training for the modern learner, 2024-2026 (EUR 400.000,00) – Partner coordinator.
6. Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) GmbH (81299351 / 18.2232.9-003.00) – Innovation digitalization enabling Meso organization (Digital Innovation Hub its4Helath), 2023-2024 (EUR 157,660.71) – Project coordinator.
7. Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) GmbH – Analysis of the gaming sector in Bosnia and Herzegovina, 2023 (BAM 15.610,00) – Project coordinator.

8. ERASMUS EDU 2022 CB VET - Capacity Building in The Field of Vocational Education and Training (VET) – BalVET-EWEC, 2022-2024 (EUR 389.570,00) - Partner coordinator.
9. European Cooperation projects (CREA-CULT-2021-COOP) – Life and environment of Women Leaders in Western Balkans History in Virtual Reality - SHELeadersVR, 2022-2025 (EUR 200.000,00) - Partner coordinator.
10. ERASMUS-JMO-2022-HEI-TCH-RSCH Enhancing EU Integration process literacy among university students in Western Balkans – EUFutur, 2022-2025 (EUR 93.046,00) – Partner coordinator
11. ERASMUS-EDU-2021-EMJM-DESIGN International Master in Virtual Reality Production (IMVRP), 2022-2023 (EUR 55.000,00) – Project coordinator, team member.
12. Science for Peace and Security Programme (NATO – G5711) – Virtual Evidence Capture Tool for Ordnance Recovery (VECTOR) 2020 – 2022 (EUR 285.000,00) - Partner coordinator.
13. Erasmus+ KA2 CBHE– Enhancing and Validating service related competences in Versatile learning environments in Western Balkan Universities (E-VIVA), 2019-2021 (EUR 993.581,40) - Partner coordinator.

MEMBERSHIPS:
- Member of the Sarajevo Graphics Group
  - Virtual Reconstruction of the Church of the Holy Trinity in Mostar, B&H
  - Virtual City of Sarajevo
- Member of DIGI.BA – Association for digitization and information of cultural heritage
- Member of DNT.BA - Association for the development, promotion and application of advanced technologies

CONFERENCE ORGANISATION:
- Local Organizing Chair – Digitalization and Emerging Technologies (MeFDIGI2020), October 2021
- Local Organizing Chair – Digitalization and Emerging Technologies (MeFDIGI2020), October 2020
- Local Organizing Chair – Eurographics Workshop on Graphics and Cultural Heritage, November 2019
- Local Organizing Chair – 10th Days of BHAAAS in B&H, The International Symposium on Computer Science, 2018.
- Local Organizing Chair – Oracle Academy Days in Sarajevo, B&H, 2017.
- Local Organizing Chair – 9th Days of BHAAAS in B&H, The International Symposium on Computer Science, 2017.
- Local Organizing Member - 19th Eurographics Symposium on Rendering, Sarajevo 2008.
- Local Organizing Member - Graphics Hardware Workshop, Sarajevo 2008.

RESEARCH INTERESTS:
- Serious games
- Perception and Attention
- ICT in Education
- Cultural Heritage Digitization
- Human Computer Interaction
- Data science

PUBLICATIONS:

Journal Articles (SCI list)

1. Dubiel, A., Kamińska, D., Zwoliński, G., Ramić-Brkić, B., Agostini, D. and Zancanaro, M., 2025. **Virtual reality for the training of soft skills for professional education: trends and opportunities**. *Interactive Learning Environments*, pp.1-21. **Q1**
2. Hadzidedic, S., Fajardo-Flores, S. and Ramic-Brkic, B., 2022. **User perceptions and use of authentication methods: insights from youth in Mexico and Bosnia and Herzegovina**. Information & Computer Security. Q2
3. Pasic, M., Mijo, K., Vucijak, B., Sakovic, J., Milojkovic, M., Ramic-Brkic, B., Vujovic, A., Boskovic, B., Idrizi, A., Pasic, M., Vatres, A., and Leka, D., 2022. **Service related competences education practices in South East Europe**. International Journal for Quality Research, 16(2), pp.515-540. Q2
4. Cosović, M. and Brkic, B.R., 2020. **Game-based learning in museums—cultural heritage applications**. Information, 11(1), p.22. Q3
5. Begic, E., Hadzidedic, S., Kulaglic, A., Ramic-Brkic, B., Begic, Z. and Causevic, M., 2019. **SOMAscan-based proteomic measurements of plasma brain natriuretic peptide are decreased in mild cognitive impairment and in Alzheimer's dementia patients.** *PloS one*, *14*(2). Q1
6. Ramic-Brkic, B. and Chalmers, A., 2014. **Olfactory adaptation in virtual environments**. *ACM Transactions on Applied Perception (TAP)*, *11*(2), pp.1-16. Q2
7. Chalmers, A., Debattista, K. and Ramic-Brkic, B., 2009. **Towards high-fidelity multi-sensory virtual environments**. *The Visual Computer*, *25*(12), pp.1101-1108. Q2

Chapters

1. Ramic-Brkic, B. and Balik, A., 2023. **Reinventing Progressive Learning and Teaching Processes Through Gamification**. In Handbook of Research on Decision-Making Capabilities Improvement With Serious Games (pp. 266-293). IGI Global.
2. Cosovic, M., Jankovic, R. and Ramic-Brkic, B., 2021. **Cultural Heritage Image Classification**. *Data Analytics for Cultural Heritage: Current Trends and Concepts*, p.25.
3. Ramic-Brkic, B., Cosovic, M. and Begic, E., 2020, June. **Physical and Cognitive Therapy Enhancement Using Game-Based Learning.** In International Symposium on Innovative and Interdisciplinary Applications of Advanced Technologies (pp. 343-359). Springer, Cham.
4. Balik, A. and Ramic-Brkic, B., 2018, June. **On-line Platform for Early Detection of Child Backlog in the Development.** In International Symposium on Innovative and Interdisciplinary Applications of Advanced Technologies (pp. 446-456). Springer, Cham.
5. Bajraktarevic, S. and Ramic-Brkic, B., 2017, May. **Farm: serious game for addressing child obesity**. In International Symposium on Innovative and Interdisciplinary Applications of Advanced Technologies (pp. 337-345). Springer, Cham.
6. Catic, T. and Ramic-Brkic, B., 2017, May. **SSST-Cloud: Developing a Cloud System for a University**. In International Symposium on Innovative and Interdisciplinary Applications of Advanced Technologies (pp. 321-328). Springer, Cham.
7. Kulovic, S. and Ramic-Brkic, B., 2017, May. **DIY smart mirror**. In International Symposium on Innovative and Interdisciplinary Applications of Advanced Technologies (pp. 329-336). Springer, Cham.
8. Krnic, M. and Ramic-Brkic, B., 2017, May. **Science Battle**. In International Symposium on Innovative and Interdisciplinary Applications of Advanced Technologies (pp. 282-289). Springer, Cham.
9. Bajraktarevic, S. and Ramic-Brkic, B., 2017. **Kockica: developing a serious game for alphabet learning and practicing vocabulary.** In Advanced Technologies, Systems, and Applications (pp. 349-358). Springer, Cham.
10. Kolakovic, A. and Ramic-Brkic, B., 2017. **Aviončići: Developing a Serious Game for Counting and Color-Matching.** In Advanced Technologies, Systems, and Applications (pp. 359-367). Springer, Cham.

Conferences

1. D. Omerhodzic and B. Ramic-Brkic, "Immersive Virtual Reality Safety Education/Training of Young Adults," *2025 XXX International Conference on Information, Communication and Automation*

Technologies (ICAT), Sarajevo, Bosnia and Herzegovina, 2025, pp. 1-6, doi: 10.1109/ICAT66432.2025.11189279.

2. B. Ramic-Brkic, A. Dubiel, B. Mijatovic and M. Zancanaro, "Immersive Learning in Virtual Reality: Soft Skills Training with eXcape," 2025 11th International Conference on Virtual Reality (ICVR), Wageningen, Netherlands, 2025, pp. 6-11, doi: 10.1109/ICVR66534.2025.11172569.

3. Hajjir-Mesihovic, N., & Ramic-Brkic, B. (2025). Personalized learning approach to education. *EDULEARN25 Proceedings*, 835-844.

4. Ramic-Brkic, B., Ibric, H. and Mijatovic, B. (2025). **Integrating Serious Games in Education: Advancing Inclusive Design**. DOI: 10.5220/0013499700003932. Paper published under CC license (CC BY-NC-ND 4.0). In Proceedings of the 17th International Conference on Computer Supported Education (CSEDU 2025) - Volume 1, pages 812-821, ISBN: 978-989-758-746-7; ISSN: 2184-5026. Proceedings Copyright © 2025 by SCITEPRESS – Science and Technology Publications, Lda.

5. Shehu, E., Xhaferaj, A., Murati, V., Privitera, F., Ramić-Brkić, B., & Ismaili, D. (2024). **Bridging knowledge gaps.** In *Proceedings of the 11th International Scientific Conference: Living in a Technological Era* (pp. 10–19). European University of Tirana.

6. Ramić-Brkić, B. and Ćosović, M., 2022. **Exploring digital tourism application for medieval period reconstruction**. In VIPERC2022: 1st International Virtual Conference on Visual Pattern Extraction and Recognition for Cultural Heritage Understanding, 12 September 2022.

7. Djulovic, D. and Ramic-Brkic, B., 2022. **APPLICATION OF AUGMENTED REALITY IN TEXT-BASED LEARNING ENVIRONMENTS**. In ICERI2022 Proceedings (pp. 4046-4055). IATED.

8. B. Ramic-Brkic, B. Mijatovic, F. Catibusic and E. Mekic, "**Developing a Virtual Reality (VR) Lab for Improving the Safety of Pyrotechnicians**," 2022 International Balkan Conference on Communications and Networking (BalkanCom), 2022, pp. 195-199, doi: 10.1109/BalkanCom55633.2022.9900680.

9. Cosovic M., Ramic-Brkic B., "**Application of Game-Based Learning in Cultural Heritage** (short paper)," VIPERC@IRCDL, 2020 (pp. 58-63).

10. Ramic-Brkic B., Balik A., Pistoljevic N., Hadzidedic S., "**Web Tool for Creating Educational/Therapeutic Programmes**," 2019 11th International Conference on Virtual Worlds and Games for Serious Applications (VS-Games), Vienna, Austria, 2019.

11. Ramic-Brkic B., Cosovic M., Rizvic S., "**Cultural Heritage Digitalization in BiH: state-of-the-art review and future trends**". In VIPERC 2019: Visual Pattern Extraction and Recognition for Cultural Heritage Understanding Workshop, Pisa, Italy, January 2019.

12. E. Begic, S. Hadzidedic, A. Kulaglic, B. Ramic-Brkic, Z. Begic, and M. Causevic, "**Characterization of a myocardial infarction biomarker, brain-type natriuretic peptide, as a biomarker of cognitive dysfunction**," Cardiologia Croatica, vol. 13, no. 11-12, pp. 435–435, nov 2018.

13. Ramic-Brkic B., "**Enhancing Progressive Education through the Use of Serious Games**," 2018 10th International Conference on Virtual Worlds and Games for Serious Applications (VS-Games), Würzburg, Germany, 2018, pp. 1-4. doi:10.1109/VS-Games.2018.8493422

14. Ramic-Brkic B., "**Developing Serious Games for Early Childhood Education**". BESEDA, J, ROHLÍKOVÁ, L, (eds.) 2018: DisCo 2018: Overcoming the Challenges and the Barriers in Open Education -13th conference reader. Prague: Centre for Higher Education Studies, ISBN: 978-80-86302-83-6.

15. S. Hadzidedic, N. Dervishalidovic, A. Pandzo and B. Ramic-Brkic, "**Use of Student Response Systems in Higher Education in Bosnia and Herzegovina**". Proceedings of the 7th European Computing Conference (ECC '13), WSEAS, 25-27 June, 2013, Dubrovnik, Croatia, ISSN: 1790-5109, ISBN: 978-960-474-304-9.

16. Ramic-Brkic B., Chalmers A., Sadzak A., Debattista K. and Sultanic S., "**Exploring multiple modalities for selective rendering of virtual environments**". In SCCG '13: Proceedings of the Spring Conference on Computer Graphics. ACM SIGGRAPH, 2013.

17. Rizvic S., Sadzak A., Ramic-Brkic B. and Hulusic V., "**Virtual Museums and Their Public Perception In Bosnia And Herzegovina**". International Archives of Photogrammetry, Remote Sensing and Spatial Information Sciences Volume 38-5/W16, ISSN Number 1682-1777, 2011.

18. Ramic-Brkic B. and Chalmers A., **Virtual smell: Authentic smell diffusion in virtual environments**. In Proceedings of the 7th International Conference on Computer Graphics, Virtual Reality, Visualisation and Interaction in Africa, Franschhoek, South Africa, June 21-23, 2010.

19. Ramic-Brkic B., Karkin Z., Sadzak A., Selimovic D. and Rizvic S. **Augmented Real-Time Virtual Environment of the Church of the Holy Trinity in Mostar**. In Proceedings of VAST 2009, ISBN 978-3-905674-18-7, pg 141-148

20. Rizvic S., Ramic-Brkic B. and Sadzak A. **Digital Storytelling in the Church of the Holy Trinity Virtual Environment**. Proceedings of Joint Virtual Reality Conference, JVRC 2009, Lyon, 2009.

21. Ramic-Brkic B., Chalmers A., Boulanger K., Pattanaik S. and Covington J. **Cross-modal effects of smell on the real-time rendering of grass**. In SCCG '09: Proceedings of the Spring Conference on Computer Graphics. ACM SIGGRAPH, 2009.

22. Rizvic S., Ramic-Brkic B and Sadzak A. **Očuvanje kulturnog naslijeđa u digitalnom obliku**. IV regionalna konferencija o integrativnoj zastiti, Banja Luka, 2009.

23. Ramic-Brkic B., Rizvic S. **XVR (eXtreme Virtual Reality) – A new Web 3D Technology**. BiHTel, Sarajevo, 2008.

24. Pilav E., Ramic-Brkic B. **Real-time image based rendering using limited resources**. CESCG, Bratislava, April 2008.

25. Ramic B., Chalmers A., Hasic J., Rizvic S. **Selective Rendering in Multimodal Environment: Scent and Graphics**. In SCCG '07: Proceedings of the Spring Conference on Computer Graphics. ACM SIGGRAPH, 2007.