

Sofija Sidorenko

Curriculum vitae

Personal data

First Name /Surname: Sofija Sidorenko
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http://www.design.mf.edu.mk/Professors/sofija_sidorenko
Nationality Macedonian

Work experience

1987- Sts Cyril and Methodius University, Faculty of Mechanical Engineering, Skopje, Macedonia
2012 full professor
2007-2012 assoc. professor
2003-2007 assist. professor
1987-2003 teaching assistant

Education

Dates 1999-2002
Title of qualification awarded PhD
Doctor Thesis title: "Object-oriented model of Virtual NC Machining",
Research area: object-oriented programming, computer graphics, computer animation;
Educational organization: Sts Cyril and Methodius University, Faculty of Mechanical Engineering, Skopje, Macedonia

Dates 1989-1994
Title of qualification awarded MSc
Master Thesis title: "Computer animation with synthetic actors in three -dimensional presentation"
Research area: object-oriented programming, computer graphics, computer animation;
Educational organization: Sts Cyril and Methodius University, Faculty of Electrical Engineering, Skopje, Macedonia

Dates 1981-1987
Title of qualification awarded BSc
Thesis title: "Design of center for cultural and information events in Skopje"
Design area: public buildings design;
Educational organization: Sts Cyril and Methodius University, Faculty of Architectural design, Skopje, Macedonia

Personal skills and competences

Languages English (fluent), German (basic);
Computer skills AutoCAD, Maya, Corel Draw, Adobe CS3, Microsoft Office, Ramsis, Jack, C++ programming;
Personal interests Industrial design, furniture design, interior design;

Teaching

Graduate study courses:	<ol style="list-style-type: none">1. Industrial Design2. Design Process3. Product Design Ergonomics
Postgraduate studies courses:	<ol style="list-style-type: none">4. Ergonomic Methods5. Bionic Methods6. Industrial Design History
Doctoral studies courses:	<ol style="list-style-type: none">8. Ergonomic Methods in Engineering Design9. Ergonomics in Design of Vehicles and Mechanization10. Ergonomic Methods11. Bionic Methods

Books

Internal unpublished e-books for students:	<ol style="list-style-type: none">1. Industrial design 1, 20052. Industrial design 2, 20063. Ergonomics and bionics, 20094. History of industrial design, 20095. Industrial design, 20106. 3D modeling and rendering, 20127. Design of web pages, 20128. Design techniques, 20129. Ergonomics for designers, 2013
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Research

Research interest: industrial and product design, design process, design research, education methods in industrial design, ergonomics, bionics.

Recent papers:

1. Kjosevski S., Sidorenko S., Kostikj A., *Human machine interface of the conventional and electric vehicles – a comparative study*, MESJ, Vol. 35, pp. 31-39 , 2017
<http://www.mesj.ukim.edu.mk/sites/default/files/Mech.%20Eng.%20Sci.%20J.%2035-1-2017.pdf>
2. Kjosevski S., Kostikj A., Sidorenko S., Danev D., *Safety related aspects of human-machine interface regarding invehile ITS and electric vehicle*, Сообраќајно технички вештачења како основа за квалитетно решавање на судски спорови – стручно советување, Струга 2017
3. Sidorenko S., *Improvement of creativity via the six-steps bio-inspiration strategy*, SEEJAD, ISSN 1857-9353, Vol. 2017, pp. 1-8, 2017, <https://id-press.eu/seejad/article/view/seejad.2017.10028>
4. Sidorenko S., Velkova A. An innovative approach in products' size adjustment inspired by nature, MESJ, Vol. 35, pp., 2017, <http://www.mesj.ukim.edu.mk/sites/default/files/Mech.%20Eng.-Sci.%20J.-35-2-%282017%29.pdf>
5. Angeleska E., Sidorenko S., “Design for better life quality and mental health”, MESJ, Vol. 36, No 2, pp. 145-154, 2018, <http://www.mesj.ukim.edu.mk/sites/default/files/Mech-Eng-Sci-J-36-2-%282018%29-KOMPLET.pdf>
6. Selim I., Lazarevska A., Mladenovska D., Kandikjan T., Sidorenko S., “Identifying material attributes for designing biodegradable products”, 5th International Conference „NEW TECHNOLOGIES NT-2019“ and Application, June 27-29. 2019 – Sarajevo, Bosnia and Herzegovina, web

7. Selim I., Lazarevska A., Kandikjan T., Sidorenko S., "Multi-attribute material information platform", Insider Knowledge, 5th International Conference for Design Education Researchs, 9-12 July 2019, METU, Ankara, Turkey, https://drive.google.com/file/d/1hP_zm-o4Pm3tqOS2RKZPgFd0CQ_CzlpY/view
8. Gerasimovski N., Angeleska E., Sidorenko S., "Bionic principles of space optimization applied in the product design process" MESJ, Vol. 37, No 1, pp. 107–115, 2019, <http://www.mesj.ukim.edu.mk/sites/default/files/Mech.%20Eng.%20Sci.J.-37-1-2-%282019%29-CEL%20Broj-za-WEB.pdf>
9. Angeleska E, Cvetkovski A., Dimchova M., Simonovski N., Treziovski D., Sidorenko S., Influence of car door cavity design on ingress/egress ergonomics, 7th international conference Transport & Logistics, Nish, Serbia, 2019,
10. Cvetkovski A., Sidorenko S., "Similarities and Differences in Terms of the Geometry Used in De Stijl and Bauhaus Product Designs", South East European Journal of Architecture and Design Volume 2019; Article ID 10041, 8 pages <http://dx.doi.org/10.3889/seejad.2010.10041>
11. Angeleska E., Sidorenko S., Pretto P., Automated vehicles as a possibility for inclusion, Workshop on Inclusive Communication between Automated Vehicles and Vulnerable Road Users (WeCARE), In conjunction with Mobile HCI, October 5-9 2020.
12. Zdravkova A., Mircheski I., Sidorenko S., Bio-Inspired Approach for Innovative Design of Knee Protectors for Recreational Sports, FME Transactions Vol. 48, No. 4, pp. 849-854, 2020, https://www.mas.bg.ac.rs/_media/istrazivanje/fme/vol48/4/15_i_mircheski_et_al.pdf
13. Angeleska E., Sidorenko S., Bio-inspired Back Support System for Backpacks, FME Transactions Vol. 49, No. 2, pp. 327-334, 2021, https://www.mas.bg.ac.rs/_media/istrazivanje/fme/vol49/2/7_e.angeleska_et_al.pdf
14. Sidorenko S., Angeleska E. (2021) "Strategy for bio-inspiration in design and engineering". ПРЕСИНГ, ГОД.Х/БР.54/12.2021, pp. 21-27
15. S. Sidorenko, E. Angeleska, F. Dimitriev and J. Djokikj, "Methodology for bio-inspired design innovations based on functional decomposition," *2021 3rd International Congress on Human-Computer Interaction, Optimization and Robotic Applications (HORA)*, 2021, pp. 1-6, doi: 10.1109/HORA52670.2021.9461324. (<https://ieeexplore.ieee.org/document/9461324/authors#authors>)
16. Angeleska E., Sidorenko S., Jankovic A., Rizov T., Aleksovska A., Avramov N. (2021) "Systematization of ergonomic and inclusive principles for designing interiors of autonomous vehicles". 8th International Conference Transport and Logistics, Nish, Serbia, December 2021, http://til.masfak.ni.ac.rs/images/til-pedja/til2021_Proceedings_29.pdf
17. Angeleska, E., Sidorenko, M., Sidorenko, S., Pretto, P. (2022) "Inclusive Autonomous Vehicle Interior Design (IAVID) Platform". In: Pepetto Di Bucchianico (eds) Design for Inclusion. AHFE (2022) International Conference. AHFE Open Access, vol 45. AHFE International, USA.<http://doi.org/10.54941/ahfe1001869>
18. Angeleska E., Pretto P., Sidorenko S. (2022) "Inclusive User Interface for Autonomous Vehicles: Developing an Interface that Can Be Independently Used by Persons with Visual Acuity Loss". In: Stephanidis C., Antona M., Ntoa S. (eds.) HCI International 2022 Posters, 24th International Conference on Human-Computer Interaction, HCII 2022, Virtual Event, June 26 – July 1, 2022, Proceedings, Part IV, Springer, pp. 141-146. doi: 10.1007/978-3-031-06394-7
19. Angeleska E., Aleksovska A., Avramov N., Sidorenko S., Rizov T., Jankovic A. (2022) "Design and Evaluation of an Inclusive Autonomous Vehicle User Interface Developed for Persons with Visual Acuity Loss". Proceedings of the Design Society, 2, 2035-2044, Cambridge University Press, 2022. doi:10.1017/pds.2022.206
20. Angeleska E., Sidorenko S. (2022) "Electric autonomous vehicles: Potentials for contributing to the development of sustainable cities". International Conference GREDIT 2022, Skopje, North Macedonia, May 2022, https://benainfo.net/gredit/doc/GREDIT-2022-Book_of_Abstracts_final_c.pdf

21. Angeleska E., Sidorenko S., Jankovic A., Rizov T. (2022) "Application of Virtual Ergonomic Tools for Evaluating an Inclusive Autonomous Vehicle Interior". SEEJAD, Vol. 2022 (2022), <https://seejad.eu/index.php/seejad/article/view/6030>
22. Angeleska E., Vasilevski K., Mircheski I., Sidorenko S. (2022) "Application of a six-step bionic strategy for achieving product segmentation". TEM Journal, 11(1), pp. 196-201. doi: 10.18421/TEM111-24

International research projects:

1. Gebhardt A., Kandikjan T., Sidorenko S., "Development of Master Studies in Industrial Design and Marketing", TEMPUS JEP-41128-2006, European Commission, 2007-2009
2. Lazarevska A.: "Ensuring Equal Access through Service Learning for Persons with Disabilities", Alumni Engagement Inovation Fund, 2011-2012
3. Krohn M., Sidorenko S. (coordinator), Kandikjan T. "Design with social impact" international project in cooperation with Zurich University of Arts, Switzerland, 2016-2017
4. Fuchs A., Dimitrovski D., Sidorenko S., Rizov T., Avramov N., Angeleska E., "Virtual Vehicle", international project in cooperation between Faculty of Mechanical Engineering, Skopje and Virtual Vehicle Research GmbH, Graz, Austria, 2019-2022

National projects:

1. Kandikjan T., Sidorenko S., "Participation of the students in industrial design on Milano Design Week 2012", Ministry of culture, Republic of Macedonia, 2012
2. Kandikjan T., Sidorenko S., "Estuar", national project supported by Ministry of culture, Republic of North Macedonia, 2012
3. Kandikjan T., Sidorenko S., "Design the Evolution", national project supported by Ministry of Culture, Republic of North Macedonia, 2012
4. Kandikjan T., Sidorenko S., "Design the Evolution 2", national project supported by Ministry of Culture, Republic of North Macedonia, 2016
5. Kandikjan T., Sidorenko S., and others, "Imagination>>Technology<<Design", national project supported by Ministry of Culture, Republic of North Macedonia, 2020
6. Kandikjan T., Djokikj J., Sidorenko S., and others, "Parametric design for additive production", national project supported by Sts Cyril and Methodius University, 2020
7. Danev D., Mircheski I., Sidorenko S. and others, "Redesign of sweepers", national project in cooperation between Faculty of Mechanical Engineering, Skopje and BRAKO – Veles, 2020