



Curriculum Vitae

GENERAL INFORMATION

First and last name	Smiljana Djorovic (<i>Serbian: Smiljana Đorović</i>)
Year and place of birth	1992, Kragujevac, Serbia
Position	Research Assistant
E-mail	smiljana@kg.ac.rs
Education-scientific field	Technical science
University, faculty, organizational unit	<ul style="list-style-type: none">○ Bioengineering Research and Development Center, BioIRC○ University of Kragujevac, Faculty of EngineeringDepartment for Applied mechanics and automatic control
Field and closer speciality	Mechanical Engineering (Applied mechanics)

EDUCATION

BACHELOR STUDIES - Diploma	
Year	2014
Place	Kragujevac
Institution	Faculty of Engineering, University of Kragujevac
Headline of BSC	Bone tissue fracture and healing
Field	Applied mechanics
MASTER STUDIES - Diploma	
Year	2016
Place	Kragujevac
Institution	Faculty of Engineering, University of Kragujevac
Headline of MSC	Numerical analysis of blood flow and mechanical characteristics of abdominal aortic aneurysm in endovascular treatment
Field	Applied mechanics
PHD STUDIES	
Started (year)	2016
Place	Kragujevac
Institution	Faculty of Engineering, University of Kragujevac
Supervisor	Prof Dr. Nenad Filipovic

TECHNICAL BIOGRAPHY – POSITIONS

Year	Position
2017-2020	Research Trainee
2020-	Research Assistant

PROFESSIONAL BIOGRAPHY - IMPROVEMENTS

Duration	Institution
09.11.2015.-13.11.2015.	Certificate <i>Cell science and engineering</i> (prof. dr Robert Zorec), Faculty of Engineering, Kragujevac
02.12.2014.- 31.06.2015.	English language B2 certificate (Career Development Center, University of Kragujevac)
2015-2017	Bioengineering Research and Development Center (BioIRC), Kragujevac, Serbia – the internship;
01.02.2018.-15.02.2018.	Short Term Scientific Mission (STSM) at Institute of Experimental Medicine, Prague, Czech Republic, COST Action CA16122 – BIONECA
29.05.2018.-31.05.2018.	4th Training School of the COST Action CA15120 „Open Multiscale Systems Medicine (OpenMultiMed)“, Nisocia, Cyprus, 29th – 31st May, 2018
04.02.2019. - 08.02.2019.	6th OpenMultiMed (CA15120) Cost Training School in Computational data science, Mavrovo, Republic of Macedonia

INTERNATIONAL AWARDS AND RECOGNITIONS

Year	Name of award/recognition
2015	Best Student Paper Award Winner on the 15th International Conference on Bioinformatics and BioEngineering (BIBE), Belgrade, Serbia, 2th-4th November, 2015

PARTICIPATION IN NATIONAL PROJECTS

Year	Project
2017-2019	Serbian national project: Methods of multiscale modeling with applications to biomedicine (O174028)

PARTICIPATION IN INTERNATIONAL PROJECTS

Year	Project
2017-2018	H2020: Simulation Modeling of coronary ARtery disease: a tool for clinical decision support – SMARTool (Grant agreement No 689068)
2018	Bilateral project between Slovenia and Serbia „Automatic detection and localization of ischemia by the use of data mining algorithms“ (ISMINE)
2018-	H2020: In Silico trials for drug tracing the effects of sarcomeric protein mutations leading to familial cardiomyopathy – SILICOFM (Grant agreement No 777204)
2018-	H2020: A multidisciplinary approach for the stratification of patients with carotid artery disease – TAXINOMISIS (Grant agreement No 755320)

PARTICIPATION IN PROFESSIONAL ASSOCIATIONS

Year	Association
2016-	Serbian Society for Computational Mechanics
2019-	Serbian Society for Mechanics

RESULTS OF PEDAGOGICAL WORK

Year	Course
2015-	Computer-based engineering, Faculty of engineering, University of Kragujevac
2016-	Engineering tools, Faculty of engineering, University of Kragujevac

2016-	Engineering tools 2, Faculty of engineering, University of Kragujevac
2017-	Basics of bioengineering, Faculty of engineering, University of Kragujevac
2017-	Bioengineering and bioinformatics, Faculty of engineering, University of Kragujevac

RESULTS OF SCIENTIFIC AND RESEARCH WORK

Year 2020

1. Smiljana Djorovic, Igor Saveljic, Nenad Filipovic, Advanced modelling approach of carotid artery atherosclerosis, 8th International Conference on Computational Bioengineering, Belgrade, Serbia, 4-6 September 2019, Springer Nature Switzerland AG 2020, N. Filipovic (Ed.): ICCB 2019, LAIS 11, pp. 143-150, ISBN 978-3-030-43657-5, Doi 10.1007/978-3-030-43658-2_13, 2020

Year 2019

2. **Smiljana Djorovic** and Nenad Filipovic, Computational analysis of abdominal aortic aneurysm before and after endovascular aneurysm repair, in Book Computational Modeling in Bioengineering and Bioinformatics ISBN-9780128195833, pp. 353-386, DOI: 10.1016/B978-0-12-819583-3.00011-4, Publisher: Elsevier Science, 2019
3. **Smiljana Djorovic**, Igor Saveljic, Nenad Filipovic. Computational Simulation of Carotid Artery: From Patient-Specific Images to Finite Element Analysis. Journal of the Serbian Society for Computational Mechanics, 2019, ISBN 1820-6530, Vol. 13, No. 1, pp 120-129, DOI: 10.24874/jsscm.2019.13.01.08
4. **Smiljana Djorovic**, Igor Saveljic, Nenad Filipovic, Three-dimensional numerical analysis of atherosclerosis development within carotid artery. IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI), Chicago, USA, 19-22 May 2019
5. **Smiljana Djorovic**, Igor Saveljic, Nenad Filipovic, Analysis of the carotid artery and atherosclerotic plaque growth using the patient-specific parameters. 68th International congress of the European Society of CardioVascular and Endoascular Surgery (ESCVS), Groningen, the Netherlands, 22-25 May 2019
6. **Smiljana Djorovic**, Igor Saveljic, Nenad Filipovic, Computational modelling of carotid artery and simulation of plaque progression. 7th International Congress of Serbian Society of Mechanics (SSM), Sremski Karlovci, Serbia, pp. 163-165 in Proceedings, ISBN 978-86-909973-7-4, 24-26 June 2019
7. **Smiljana Djorovic**, Igor Saveljic, Nenad Filipovic, Carotid atherosclerosis disease: modelling and analysis of plaque development. 25th Congress of the European Society of Biomechanics - ESBiomech Conference 2019, pp. 422 in Proceedings, ISBN 978-3-903024-96-0, 07-10 July 2019, Vienna, Austria
8. **Smiljana Djorovic**, Igor Saveljic, Nenad Filipovic, Numerical Analysis of Plaque Progression in 3D Patient Specific Model of Carotid Artery. In: Badnjevic A., Škrbić R., Gurbeta Pokvić L. (eds) CMBEBIH 2019. CMBEBIH 2019. IFMBE Proceedings, Vol, 73, pp. 337-340, ISBN 978-3030179700, Springer, Cham, Doi 10.1007/978-3-030-17971-7_52, 2019
9. Gordana Jovičić, **Smiljana Đorović**, Arso Vukicević, Nenad Djordjević, Nenad Filipović, Integrity assessment of human mandible by using failure criteria. 7th International Congress of Serbian Society of Mechanics (SSM), ISBN 978-86-909973-7-4, 24-26 June 2019, Sremski Karlovci, Serbia

Year 2018

10. **Djorović, S.**, Milosavljević, A., Velicki, L., and Filipović, N., Computational Analysis of Bicuspid Aortic Valve, IPSI BgD Transactions on Advanced Research (TAR), 14(1), ISSN 1820 – 4511, January 2018;
11. **S. Djorovic**, I. Koncar, L. Davidovic, S. Starcevic and N. Filipovic, Computational Analysis of Blood Flow Characteristics in an Aortic System with Abdominal and Left Common Iliac Aneurysm Pre- and Post-Stent Grafting, EAI Endorsed Transactions on Pervasive Health and Technology, ISSN: 2411-7145, Volume 4 | Issue 13 | e4. February 2018, DOI: 10.4108/eai.28-2-2018.154145
12. S. Starcevic, **S. Djorovic**, and N. Filipovic, Fractional Flow Reserve, Comparison between Invasive and Non-invasive Methods for Calculation of FFR, EAI Endorsed Transactions on Pervasive Health and Technology, ISSN: 2411-7145, Volume 4 | Issue 13 | e5. February 2018, DOI: 10.4108/eai.28-2-2018.154146
13. **S. Djorovic**, I. Koncar, L. Davidovic and N. Filipovic, Computational Analysis of Stented Abdominal Aortic Aneurysm, 2018 IEEE International Conference on Biomedical and Health Informatics, March 4-7, 2018, Las Vegas, NV, USA
14. **Djorovic, S.**, Končar, I., Davidović, L., Filipović, N., Aortoiliac Aneurysm, Examination of Biomechanical Characteristics for an Individual Patient. In: Konjović, Z., Zdravković, M., Trajanović, M. (Eds.) ICIST 2018 Proceedings Vol.1, pp. 212-215, ISBN 978-86-85525-22-3, 2018, <http://www.eventiotic.com/eventiotic/library/paper/401>
15. **Smiljana Djorovic**, Igor Koncar, Lazar Davidovic, Nenad Filipovic, Computational approach for determination of

the mechanical wall stress within abdominal aortic aneurysm pre- and post- EVAR treatment, 67th International Congress of the European Society for CardioVascular and Endovascular Surgery (ESCVS), Strasbourg, France, 12th-14th April 2018; Abstract Book in *The journal of cardiovascular surgery*, Vol. 59 - Suppl. 2 to No. 3. pp. 54, ISSN 0021-9509, June 2018.

16. **Smiljana, Đorović**; Marko, Robnik-Šikonja; Miloš, Radović; Bojana, Anđelković Ćirković; Nenad, Filipović. "Finite Element Modelling of Cardiac Ischemia and Data Mining Application for Ischemic Detection and Localization." *Proceedings of the 18th International Conference on Experimental Mechanics (ICEM 2018)*, ISSN 2504-3900, 2018; 2(8):410. DOI: doi.org/10.3390/ICEM18-05269.
17. **Smiljana Djorovic**, Aleksandar Milosavljevic, Lazar Velicki, and Nenad Filipovic. Parametric Modelling and Computational Examination of Bicuspid Aortic Valve, In *Biologica Serbica - Belgrade Bioinformatics Conference – BelBi 2018*, Belgrade, 18th – 22nd June, Vol. 40, No.1 (Special Edition), pp. 104, ISSN 2334-6590, UDK 57 (051), 2018.
18. Marko Robnik-Šikonja, Miloš Radović, **Smiljana Đorović**, Bojana Anđelković-Ćirković, Nenad Filipović, Modeling ischemia with finite elements and automated machine learning, *Journal of Computational Science*, Vol. 29, pp. 99-106, 2018, ISSN 1877-7503, DOI: doi.org/10.1016/j.jocs.2018.09.017.
19. **Smiljana Djorovic**, Igor Koncar, Lazar Davidovic, Nenad Filipovic, Finite Element Analysis of Abdominal Aortic Aneurysm - Benefits of EVAR Procedure and Predictions of post-operative complications, 13th World Congress on Computational Mechanics (WCCM) July 22-27, 2018, ISBN 978-0-578-40837-8, pp. 668 in Proceedings, 2018

Year 2017

20. **Smiljana Djorovic**, Aleksandar Milosavljevic, Lazar Velicki, Nenad Filipovic: Comparative finite element analysis of patient-specific tricuspid and bicuspid aortic valve, 17th International Conference on Bioinformatics and BioEngineering (BIBE 2017), Washington DC, Virginia, 23th-25th October 2017, pp. 563-567, ISBN 978-1-5386-1324-5, DOI 10.1109/BIBE.2017.00013.
21. **Smiljana Djorovic**, Aleksandar Milosavljevic Lazar Velicki, Nenad Filipovic: Finite Element Analysis of Patient-specific Bicuspid Aortic Valve, 4th South-East European Conference on Computational Mechanics - SEECCM 2017, Kragujevac, Serbia, 3th-5th July, Book of Proceedings, pp. 67 - 72, ISBN 978-86-921243-0-3, 2017.
22. **S. Djorovic**, I. Saveljic, L. Velicki, M. Robnik Šikonja, N. Filipovic: Inverse electrocardiography for localization of ischemia, 66th International Congress of the European Society for CardioVascular and Endovascular Surgery (ESCVS), Thessaloniki, Greece, 11th-14th May 2017.
23. Lazar Velicki, Aleksandar Milosavljevic, Bogdan Okiljevic, Ilija Bjeljic, Mirko Todoc, Miklos Fabri, Stamenko Susak, Aleksandar Redzek, **Smiljana Djorovic**, Nenad Filipovic: Finite element analysis of aortic root with bicuspid and tricuspid aortic valve, 66th International Congress of the European Society for CardioVascular and Endovascular Surgery (ESCVS), Thessaloniki, Greece, 11th-14th May 2017.

Year 2016

24. **Smiljana Djorovic**, Igor Koncar, Lazar Davidovic and Nenad Filipovic: A Three-dimensional Computational Analysis of Blood Flow in Patient-specific Aortic Stent Graft, 4th ESVS Spring Meeting, UCL Institute of Child Health, London, UK, 13th-14th May 2016;
25. **S. Djorovic**, I. Koncar, L. Davidovic and N. Filipovic, Computational simulation of blood flow in the abdominal and left common iliac aneurysm with and without stent graft, 65th International Congress of the European Society for CardioVascular and Endovascular Surgery (ESCVS), Belgrade, Serbia, 21th-24th April 2016; Abstract Book in *The journal of cardiovascular surgery*, Vol. 57 - Suppl. 2 to No. 2, pp. 60, ISSN 0021-9509, April 2016.

Year 2015

26. **S. Djorovic**, N. Filipovic, V. Stojic and L. Velicki, Computational Simulation of Blood Flow in a DeBakey Type I Aortic Dissection, 2015 *IEEE 15th International Conference on Bioinformatics and Bioengineering (BIBE 2015)*, Belgrade, Serbia, 2th-4th November 2015; ISBN 978-1-4673-7982-3, pp. 161-165, DOI: 10.1109/BIBE.2015.7367656.