CURRICULUM VITAE

Aleksandra Vulović

GENERAL INFORMATION

First and last name	Aleksandra Vulović
Year and place of birth	1991, Kragujevac
Position	Research Assistant
e-mail/web site	aleksandra.vulovic@kg.ac.rs
Education-scientific / education –art field	Technical science
University, faculty, organizational unit	University of Kragujevac / Faculty of Engineering
Field and closer specialty	Mechanical Engineering – Applied Mechanics

EDUCATION - DIPLOMAS

BACHELOR STUDIES - Diploma	
Year	2013
Place	Kragujevac
Institution	Faculty of Engineering, University of Kragujevac
Headline of BSC	Computer modeling of knee biomechanics
Field	Mechanical Engineering – Applied Mechanics
MASTER STUDIES - Diploma	
Year	2015
Place	Kragujevac
Institution	Faculty of Engineering, University of Kragujevac
Headline of MSC	Computer and experimental model of knee biomechanics
Field	Mechanical Engineering – Applied Mechanics

PHD STUDIES	
Started (year)	2015
Place	Kragujevac
Institution	Faculty of Engineering, University of Kragujevac
Supervisor	Prof Dr. Nenad Filipović
PHD STUDIES	
Started (year)	2016
Place	Belgrade
Institution	University of Criminal Investigation and Police Studies
Supervisor	Prof Dr. Stevo Jaćimovski

TECHNICAL BIOGRAPHY – POSITIONS

Year	Institution	Position
2016	Faculty of Engineering, University of Kragujevac	Research Prentice
2019	Faculty of Engineering, University of Kragujevac	Research Assistant

PROFESSIONAL BIOGRAPHY – IMPROVEMENTS

Year and duration	Institution:
2016, 1 month	KMM-VIN Fellowship at Institute of Materials Science and Welding, Graz University of Technology
2017, 4 days	Training School COST Action NEWGEN MP1301, Patras, Greece, May 9-12
2017, 3 days	Training School COST Action SimInhale MP1404, Athens, Greece, October 2-4
2017, 1 month	Simlnhale COST Action MP1404 Short Term Scientific Mission, Institute for Multiphase Flow, Otto von Guericke University Magdeburg, Halle (Salle), Germany
2018, 4 days	Training School, COST Action SimInhale MP1404, September 3-6, Dublin, Ireland
2018, 10 days	Open World Serbia – Higher Education System in the U.S., Akron, Ohio, October 10-20

RESULTS OF SCIENTIFIC AND RESEARCH WORK

List of results M21 Work in the leading journal of international importance	No 2	

1. **Aleksandra Vulović**, Tijana Šušteršič, Sandra Cvijić, Svetlana Ibrić, Nenad Filipović, Coupled in silico platform: Computational Fluid Dynamics (CFD) and Physiologically-Based Pharmacokinetic (PBPK) modelling, European Journal of Pharmaceutical Sciences (EJPS), vol. 113, pp. 171-184, DOI: 10.1016/j.ejps.2017.10.022, ISSN: 0928-0987, 2018.
2. Marijana Madzarevic, Djordje Medarevic, **Aleksandra Vulovic**, Tijana Sustersic, Jelena Djuris, Nenad Filipovic, Svetlana Ibric, Optimization and Prediction of Ibuprofen Release from 3D DLP Printlets Using Artificial Neural Networks. Pharmaceutics, vol. 11, no. 10, 544, DOI: 10.3390/pharmaceutics11100544; ISSN 1999-4923, 2019.

List of results M24 The work in the journal of international importance	No 1	

1. **Vulović Aleksandra,** Filipovic Nenad, Computational analysis of hip implant surfaces. Journal of the Serbian Society for Computational Mechanics, vol. 13, no 1, pp. 109-119, doi: 10.24874/jsscm.2019.13.01.07; ISSN: 1820-6530, 2019.

List of results M33 Paper presented on conference with international importance (published)	No 10	

1. **Aleksandra Vulović,** Nenad Filipović, Branko Ristić, Effects of ruptured anterior cruciate ligament and medial meniscectomy on stress distribution of human knee joint at full extension, 15th IEEE International Conference on Bioinformatics and Bioengineering (BIBE 2015), Belgrade, 2nd-5th November, pp. 132 – 135, ISBN 978-1-4673-7984-7, DOI: 10.1109/BIBE.2015.7367650, 2015.
2. **Aleksandra Vulović,** Tijana Šušteršič, Nenad Filipović, Finite Element Analysis of Femur During Gait, 4th South-East European Conference on Computational Mechanics - SEECCM 2017, Kragujevac, 3th-5th July, pp. 61 – 66, ISBN 978-86-921243-0-3, 2017.
3. Tijana Šušteršič, **Aleksandra Vulović**, Sandra Cvijić, Svetlana Ibrić, Nenad Filipović, Simulation of Aerosol Particle Flow Through Dry Powder Inhaler Aerolizer®, 4th South-East European Conference on Computational Mechanics - SEECCM 2017, Kragujevac, 3th-5th July, pp. 52 – 60, ISBN 978-86-921243-0-3, 2017.
4. **Aleksandra Vulović,** Tijana Šušteršič, Nenad Filipović, Finite Element Analysis of Femoral Implant Under Static Load, 17th IEEE International Conference on Bioinformatics and Bioengineering (BIBE 2017), Washington DC, 23rd-25th October, ISBN 978-1-5386-1325-2, pp. 559 – 562, DOI: 10.1109/BIBE.2017.00012, 2017.
5. Tijana Šušteršič, **Aleksandra Vulović**, Sandra Cvijić, Svetlana Ibrić, Nenad Filipović, Effect of Circulation Chamber Dimensions on Aerosol Delivery Efficiency of a Commertial Dry Powder Inhaler Aerolizer®, 17th IEEE International Conference on Bioinformatics and Bioengineering (BIBE 2017), Washington DC, 23rd-25th October, pp. 555 - 558, ISBN 978-1-5386-1325-2, DOI: 10.1109/BIBE.2017.00011, 2017.
6. **Vulović Aleksandra,** Ilijazi Venezija, Jaćimovski Stevo: Analysis of turbulent diffusion model with variable coefficients in case of stationary point source, Thematic Conference Proceedings of International Significance Archibald Reiss Days, vol. 3, pp. 307-320, ISBN 978-86-7020-387-7, 2017.
7. **Vulović, A.,** Warchomicka, F., Ramskogler, C., Sommitsch, C., Filipović, N., Simulation of the Interlocking Capacity of the Modified Hip Implant Surface, In: Konjović, Z., Zdravković, M., Trajanović, M. (Eds.) ICIST 2018 Proceedings Vol.1, pp. 202 - 205, ISBN 978-86-85525-22-3, 2018.
8. Šušteršič, T., **Vulović, A.,** Cekerevac, I., Susa, R., Baumann, S., Zisaki, A., Braojos, R., Rincón, F., Murali, S., Filipović, N., Automatic Sleep Apnea/Hypopnea Detection based on Nasal Airflow Signal. In: Konjović, Z., Zdravković, M., Trajanović, M. (Eds.) ICIST 2018 Proceedings Vol. 1, pp. 206 - 211, 2018, ISBN 978-86-85525-22-3, 2018.
9. **Aleksandra Vulović,** Venezija Ilijazi, Jelena Lamovec, Stevo Jaćimovski: Assessment of air pollution distribution from radioactive sources and its impact on human health, Thematic Conference Proceedings of International Significance Archibald Reiss Days, vol. 2, pp. 475-483, ISBN 978-86-7020-190-3, 2018**.**
10. **Aleksandra Vulović,** Nenad Filipović, Effect of Hip Implant Surface Modification on Shear Stress Distribution, In: N. Filipovic (Ed.): ICCB 2019, LAIS 11, pp. 151-159 ISBN 978-3-030-43657-5, 2020.

List of results M34 Paper presented on conference with international importance (published abstract)	No 2	
1. **Vulović Aleksandra,** Warchomicka Fernando, Ramskogler Claudia, Sommitsch Christof, Filipović Nenad, Finite Element Analysis of the Modified Hip Implant Surface, In Biologica Serbica - Belgrade BioInformatics Conference – BelBi 2018, Belgrade, 18th – 22nd June, Vol. 40, No.1 (Special Edition), pp. 7, ISSN 2334-6590, UDK 57 (051), 2018. 2. **Vulović A,** Filipovic N, Effect of the femoral bone material properties on the numerical simulation results. The 7th International Congress of Serbian Society of Mechanics, Sremski Karlovci, Serbia, pp. 178-179, ISBN 978-86-909973-7-4, 2019.		

List of results M52 Work in the journal of national importance	No 1	
1. **A. Vulović,** A. Vukićević, G. Jovičić, B. Ristić, N. Filipović, The influence of ruptured anterior cruciate ligament on the biomechanical weakening of knee joint and posterior cruciate ligament, Journal of the Serbian Society for Computational Mechanics, Vol. 10, No. 2, pp 1-8, ISBN 1820-6530, DOI:10.5937/jsscm1602001V, 2016.		

PARTICIPATION IN PROJECTS FINANCED BY GOVERNMENT DEPARTMANTS

Project
III41007 Serbian national project: Applied of biomedical engineering in the pre-clinical and clinical practice, financed by Ministry of Science and Technology of Republic of Serbia, 1.1.2011 - 31.12.2019. Principal Investigator: prof. dr Nenad Filipović

PARTICIPATION IN INTERNATIONAL PROJECTS

Projects
1. SIFEM, Semantic Infostructure interlinking an open source Finite Element tool and libraries with a model repository for the multi-scale Modelling and 3D visualization of the inner-ear, FP7-ICT-2011-9-600933, Project Coordinator: dr Ratnesh Sahay, National University of Ireland, Galway, 01.02.2013 – 31.01.2016. 2. Bilateral project Serbia - Austria: Modelling of the innovative hearing implant devices using bone conduction sound, 2016-2017. Principal Investigator: prof. dr Nenad Filipović 3. New Generation Biomimetic and Customized Implants for Bone Engineering, COST Action MP1301, 2013-2017. 4. SimInhale: Simulation and pharmaceutical technologies for advanced patient-tailored inhaled medicines, MPNS COST action Action P1404, 2015-2019. 5. Bilateral project Serbia – Slovenia: Computer modeling and simulation of the morphologic-metabolic coupling between the neuronal presynaptic terminal and the astrocytic process, 2018 – 2019. Principal Investigator: prof. dr Nenad Filipović 6. PANBioRA, Personalised And/or Generalised Integrated Biomaterial Risk Assessment, H2020-NMBP-2017-two-stage-760921, Coordinator: Steinbeis 2i GmbH , 01.01.2018- 31.12.2021. 7. SILICOFCM, In Silico trials for drug tracing the effects of sarcomeric protein mutations leading to familial cardiomyopathy, H2020-SC1-2017-CNECT-2-777204, Coordinator: Bioengineering Research and Development Center BioIRC doo, 01.06.2018 – 30.11.2021.