

PERSONAL INFORMATION

Name and surname	Dalibor Nikolić
Date and place of birth	24.04.1985. Smed. Palanka
Scientific title	Research Associate
E-mail	markovac85@kg.ac.rs
Educational-scientific / educational-artistic field	Technical and technological sciences
University, Faculty, Organizational unit	University of Kragujevac, Institute of Information Technologies Kragujevac, Department of Technical and Technological Sciences
Research field and areas	Mechanical engineering; Applied informatics and computer engineering

EDUCATION

old study program equivalent - MASTER STUDIES

Year	2011
Place	Kragujevac
Institution	Faculty of Engineering University of Kragujevac

DOCTORAL DISSERTATION

Year	2017
Place	Kragujevac
Institution	Faculty of Engineering University of Kragujevac
Title of doctoral dissertation	Computer modeling and optimization of stent design
Scientific title	Research Associate
Research area	Applied informatics and computer engineering

PROFESSIONAL BIOGRAPHY – ELECTION IN RESEARCH OR SCIENTIFIC TITLE

Date	Institution	Scientific title
2019	Faculty of Engineering University of Kragujevac	Research Associate

PROFESSIONAL BIOGRAPHY - TRAINING

Year	Institution	Duration
2012.	ARTreat Workshop, Атина, Грчка	5 days
2014.	SCOPEs Workshop, Фрибург, Швајцарска	14 days
2015.	SCOPEs Workshop, Фрибург, Швајцарска	14 days
2017.	Medis Lab, QFA course, Лајден, Холандија	6 days
2017.	CMBEBIH Workshop, Сарајево, БИХ	4 days
2019.	MD&M West, Workshop, Los Angeles	12 days

PARTICIPATION IN NATIONAL PROJECTS FINANCED BY MINISTRY OF EDUCATION/MINISTRY OF SCIENCE AND TECHNOLOGICAL DEVELOPMENT/SCIENCE FUND OF THE REPUBLIC OF SERBIA:

1.	III-41007: Application of biomedical engineering in preclinical and clinical practice, financed by Ministry of Science and Technology of Republic of Serbia, 2011-2019. Principal investigator - prof. dr Nenad Filipović.
2.	ON-174028: Multiscale Methods and Their Application in Nanomedicine, financed by Ministry of Science and Technology of Republic of Serbia, 2011-2019. Principal investigator - prof. dr Miloš Kojić.

PARTICIPATION IN INTERNATIONAL PROJECTS

1. FP7- ICT IP-224297-ARTreat (09/01/08-08/31/11), Multi-level patientspecific artery and atherogenesis model for outcome prediction, decision support treatment, and virtual hand-on training. Role: Researcher
2. SCOPES Joint Research Project, Role of blood flow and sdf-1/cxcr4–induced recruitment of mononuclear cells in intussusceptive angiogenesis, Role: Coordinator of the Serbian side of the project, Jan 2014 – Jan 2017
3. Компјутерска симулација кардиоваскуларних болести на рачунарима високих перформанси, Билатерални пројекат Србија-Хрватска, Jan 2016 – Jan 2017
4. SIFEM, Semantic Infostructure interlinking an open-source Finite Element tool and libraries with a model repository for the multiscale Modelling and 3d visualization of the inner-ear, 01.02.2013 – 31.01.2016. <http://www.sifem-project.eu/7>. Role: Researcher
5. EMBalance, A Decision Support System incorporating a validated patient-specific, multi scale Balance Hypermodel towards early diagnostic Evaluation and efficient Management plan formulation of Balance Disorders, FP7-ICT-2013-5-2-610454, Bioengineering research and development center BIOIRC, Kragujevac, Serbia 2013 – 2016. Role: Researcher
6. IPA Adriatic Cross-Border Cooperation Programme, ADRIATinn: An Adriatic Network for Advancing Research Development and Innovation towards the Creation of new Policies for Sustainable Competiveness and Technological Capacity of SMEs, Role: Coinvestigator, Jan 2013 – Jan 2016
7. SMARTool: Simulation Modeling of coronary ARtery disease: a tool for clinical decision support, (01/01/16-30/06/19), H2020-PHC-2015- single-stage. Role: Researcher
8. H2020-EU.3.1.1. SC1-PM- 731944 HarmonicSS: HARMONIZATION and integrative analysis of regional, national and international Cohorts on primary Sjögren's Syndrome (pSS) towards improved stratification, treatment and health policy making, Jan 2017 – December 2020

9. H2020-EU.3.1.4 SC1-PM- 769574 HOLOBALANCE: HOLOgrams for personalised virtual coaching and motivation in an ageing population with BALANCE disorders, Dec 2017 – Sept 2021
- 10.H2020-EU.3.1.5 SC1-PM- 777119 InSilc: In-silico trials for drugeluting BVS design, development and evaluation, Nov 2017 – Apr 2021.

MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL ASSOCIATIONS

1. Since 2009 - SDM Serbian Society of Mechanics,
 2. Since 2009 - SDRM Serbian Society for Computational Mechanics
 3. Since 2009 - IUTAM International Union of Theoretical and Applied Mechanics
 4. Since 2009 - IACM International Association for Computational Mechanics
 5. Since 2021 - ECCOMAS European Community on Computational Methods in Applied Sciences
- SDM Serbian Society of Mechanics, **secretary of the society** from 2019 to 2023.

ORGANIZATION OF NATIONAL/INTERNATIONAL SCIENTIFIC MEETINGS (CONFERENCES, CONGRESSES...)

8th International Congress of the Serbian Society of Mechanics, Kragujevac, Serbia, June 28-30, 2021 Organizing Committee: Local Members: Dalibor Nikolić, secretary of SSM (University of Kragujevac)

LIST OF SCIENTIFIC PAPERS:

Monographs, Monographic studies, Thematic anthologies	Sum 5
1. Dalibor D. Nikolic and Nenad Filipovic, Chapter 3 - Simulation of stent mechanical testing, Editor(s): Nenad Filipovic, Cardiovascular and respiratory bioengineering, Academic Press is an imprint of Elsevier, 2022, Pages 41-65, ISBN 978-0-12-823956-8,	

<https://doi.org/10.1016/B978-0-12-823956-8.00003-1>.

(<https://www.sciencedirect.com/science/article/pii/B9780128239568000031>)

2. Dalibor D. Nikolic, Nenad Filipovic, Chapter 3 - Topological and parametric optimization of stent design based on numerical methods, Editor(s): Nenad Filipovic, Computational Modeling in Bioengineering and Bioinformatics, Academic Press, 2020, Pages 69-103, ISBN 9780128195833, <https://doi.org/10.1016/B978-0-12-819583-3.00003-5>.
(<https://www.sciencedirect.com/science/article/pii/B9780128195833000035>)
3. Nenad Filipovic, Zarko Milosevic, Igor Saveljic, Dalibor Nikolic, Milos Radovic, Computer Modeling of Stent Deployment in the Coronary Artery Coupled with Plaque Progression. In: Zivic F., Affatato S., Trajanovic M., Schnabelrauch M., Grujovic N., Choy K. (eds) Biomaterials in Clinical Practice, Springer, Cham, (2018). doi.org/10.1007/978-3-319-68025-5_25.
4. Bojana Andjelkovic Cirkovic, Velibor Isailovic, Dalibor Nikolic, Igor Saveljic, Oberdan Parodi, Nenad Filipovic, Prediction of Coronary Plaque Progression Using Data Driven Approach, Future Access Enablers for Ubiquitous and Intelligent Infrastructures, Springer Cham, (2017). DOI: 10.1007/978-3-319-92213-3_33
5. Nenad Filipovic, Milos Radovic, Dalibor Nikolic, Igor Saveljic, Zarko Milosevic, Themis P. Exarchos, Gualtiero Pelosi, Dimitrios I. Fotiadis and Oberdan Parodi, Computer Predictive Model for Plaque Formation and Progression in the Artery, Coronary and Cardiothoracic Critical Care: Breakthroughs in Research and Practice, IGI Global (2019), DOI: 10.4018/978-1-5225-8185-7.ch012

Papers published in scientific journals of international scientific importance	Sum
	25

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|--|
| 1. Danko Z. Milasinović, Dragan B. Sekulić, Dalibor D. Nikolić, Arso M. Vukicević, Aleksandar P. Tomić, Uroš M. Miladinović, Dragana |
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- S. Paunović, Nenad D. Filipović, Virtual ABI: A computationally derived ABI index for noninvasive assessment of femoro-popliteal bypass surgery outcome, *Computer Methods and Programs in Biomedicine*, 2021, <https://doi.org/10.1016/j.cmpb.2021.106242>.
2. Filipovic N, Nikolic D, Isailovic V, Milosevic M, Geroski V, Karanasiou G, Fawdry M, Flanagan A, Fotiadis D, Kojic M. In vitro and in silico testing of partially and fully bioresorbable vascular scaffold. *J Biomech.* 2021 Jan 22; 115:110158. doi: 10.1016/j.jbiomech.2020.110158. Epub 2020 Dec 2. PMID: 33360181.
 3. Dalibor Nikolić, Miloš Radović, Srđan Aleksandrić, Miloje Tomasević, Nenad Filipović, Prediction of coronary plaque location on arteries having myocardial bridge, using finite element models. *Computer Methods and Programs in Biomedicine*, Vol. 117, No. 2, pp. 137-144, doi: <http://dx.doi.org/10.1016/j.cmpb.2014.07.012>, ISSN 0169-2607, 2014
 4. Filipovic, N, Gibney, B.C., Kojic, M., Nikolic, D., Isailovic, V., Ysasi, A., Konerding, M.A., Mentzer, S.J., Tsuda, A., A. Mapping cyclic stretch in the postpneumonectomy murine lung. *Journal of Applied Physiology.* Vol. 115, No. 9, pp. 1370-1378. doi:10.1152/japplphysiol.00635.2013, ISSN: 8750-7587, 2013
 5. Nenad Filipovic, Dalibor Nikolic, Igor Saveljic, Zarko Milosevic, Themis Exarchos, Gualtierio Pelosi and Oberdan Parodi, Computer simulation of three-dimensional plaque formation and progression in the coronary artery, *Computers and Fluids*, Vol. 88, pp. 826–833, doi: <http://dx.doi.org/10.1016/j.compfluid.2013.07.006>, ISSN: 0045-7930, 2013.
 6. Aleksa Janovic, Petar Milovanovic, Igor Saveljic, Dalibor Nikolic, Michael Hahn, Zoran Rakocevic, Nenad Filipovic, Michael Amling, Bjoern Busse, Marija Djuric, Microstructural properties of the midfacial bones in relation to the distribution of occlusal loading, *Bone*, Vol. 68, pp. 108-114, doi: <http://dx.doi.org/10.1016/j.bone.2014.07.032>, ISSN: 8756-3282, 2014.
 7. Janovic A., Saveljic I., Vukicevic A., Nikolic D., Rakocevic Z., Jovicic G., Filipovic N., Djuric M., Occlusal load distribution through the cortical and trabecular bone of the human mid-facial skeleton in natural dentition: A three-dimensional finite element study, *Annals of Anatomy*, Vol.-, No.-, pp. -, ISSN 0940-9602, Doi 10.1016/j.aanat.2014.09.002, 2014

8. Oberdan Parodi, Themis P Exarchos, Paolo Marraccini, Federico Vozzi, Zarko Milosevic, Dalibor Nikolic, Antonis Sakellarios, Panagiotis K Siogkas, Dimitrios I Fotiadis, Nenad Filipovic, PatientSpecific Prediction of Coronary Plaque Growth from CTA Angiography: A Multiscale Model for Plaque Formation and Progression. IEEE transactions on information technology in biomedicine: a publication of the IEEE Engineering in Medicine and Biology Society, Vol. 16, No. 5, pp. 952-65., doi:10.1109/TITB.2012.2201732, ISSN:1089-7771, 2012.
9. Nenad Filipovic, Mirko Rosic, Irena Tanaskovic, Zarko Milosevic, Dalibor Nikolic, Nebojsa Zdravkovic, Aleksandar Peulic, Milos R Kojic, Dimitris I Fotiadis, Oberdan Parodi: ARTreat Project: ThreeDimensional Numerical Simulation of Plaque Formation and Development in the Arteries. IEEE transactions on information technology in biomedicine: a publication of the IEEE Engineering in Medicine and Biology Society, Vol. 16, No. 2, pp. 272-278, doi:10.1109/TITB.2011.2168418, ISSN:1089-7771, 2012
10. Filipovic N, Rosic M, Tanaskovic I, Milosevic Z, Nikolic D, Zdravkovic N, Peulic A. Fotiadis D, Parodi O, ARTreat project: Three-dimensional Numerical Simulation of Plaque Formation and Development in the Arteries, IEEE Trans Inf Technol Biomed, Vol.0, No.0, pp. PMID: 21937352, ISSN 1089-7771, 2011
11. Miljan Milosevic, Milos Anic, Dalibor Nikolic, Bogdan Milicevic, Milos Kojic and Nenad Filipovic, InSilc Computational Tool for In Silico Optimization of Drug-Eluting Bioresorbable Vascular Scaffolds, 2022, 1748-670X, Computational and Mathematical Methods in Medicine, Hindawi, <https://doi.org/10.1155/2022/5311208>
12. Filipovic N, Nikolic D, Saveljic I, Tanaskovic I, Zdravkovic N, Zivanovic A, Arsenijevic P, Jeremic B and Arsenijevic S, Computer simulation of cervical tissue response to a hydraulic dilator device, Theoretical Biology and Medical Modelling, Vol. 10, No. 64, doi: 10.1186/1742-4682-10-64, ISSN: 1742-4682, 2013.
13. Janovic Aleksa, Saveljic Igor, Vukicevic Arso M, Nikolic Dalibor, Rakocevic Zoran B, Jovicic Gordana R, Filipovic Nenad D, Djuric Marija P, Occlusal load distribution through the cortical and trabecular bone of the human mid-facial skeleton in natural dentition: A three-dimensional finite element study, Annals of Anatomy, Anatomischer Anzeiger, Vol.197, No.-, pp. 16-23, ISSN 0940-9602, Doi 10.1016/j.aanat.2014.09.002, 2015

14. Svetlana Antic, Igor Saveljic, Dalibor Nikolic, Gordana Jovicic, Nenad Filipovic, Zoran Rakocevic, Marija Djuric, Does the presence of an unerupted lower third molar influence the risk of mandibular angle and condylar fractures? *International Journal of Oral and Maxillofacial Surgery*, (2016), vol. 45, pp. 588-592, doi.org/10.1016/j.ijom.2014.09.018.
15. N. Filipovic, B. Gibney, D. Nikolic, M. Konerding, S. Mentzer, A. Tsuda, Computational analysis of lung deformation after murine pneumonectomy, *Computer Methods in Biomechanics and Biomedical Engineering*, Vol.-, No.-, pp. 1-7, ISSN -, Doi 10.1080/10255842.2012.719606, 2012
16. N. Filipovic, D. Nikolic, I.Saveljic, T. Djukic, O. Adjic, P.Kovacevic, N. Cemerlic-Adjic, L. Velicki, Computer simulation of thromboexclusion of the complete aorta in the treatment of chronic type B aneurysm, *Computer Aided Surgery*, Vol.18, No.1-2, pp. 1-9, ISSN 1092-9088, Doi 10.3109/10929088.2012.741145, 2013
17. Filipovic N, Nikolic D, Saveljic I, Djukic T, Adjic O, Kovacevic P, Cemerlic-Adjic N, Velicki L, Computer simulation of thromboexclusion of the complete aorta in the treatment of chronic type B aneurysm, *Computer Aided Surgery*, Vol. 18, No. 1-2, pp. 1-9, doi: 10.3109/10929088.2012.741145, ISSN: 1092-9088, 2013.
18. Filipovic, N., Isailovic, V., Nikolic, D., Peulic, A., Mijailovic, N., Petrovic, S., Cukovic, S., Vulovic, R., Matic, A., Zdravkovic, N., Devedzic, G., Ristic, B., Biomechanical Modeling of Knee for Specific Patients with Chronic Anterior Cruciate Ligament Injury, *Computer Science and Information Systems, ComSIS*, Vol. 10, No. 1, pp. 525-545, DOI:10.2298/CSIS120531014F, ISSN 1820-0214, 2013
19. Nenad Filipovic, Igor Saveljic, Dalibor Nikolic, Zarko Milosevic, Pavle Kovacevic, Lazar Velicki, Numerical simulation of blood flow and plaque progression in carotid-carotid bypass patient specific case, *Computer Aided Surgery*, (2015), vol. 20, str. 1-6, doi.org/10.3109/10929088.2015.1076036.
20. Milovan Matovic, Dalibor Nikolic, Nenad Filipovic, Marija Jeremic, Slobodan M. Jankovic, Srdjan Ninkovic, Aleksandar Cvetkovic, Marina Vlajkovic, Ana Rankovic (2017) An innovative method for precise lymph node detection before surgical treatment in breast cancer, *Hellenic journal of nuclear medicine* vol. 20, no. 2, pp. 176-178, DOI: 10.1967/s002449910555

21. Igor B. Koncar, Dalibor Nikolic, Zarko Milosevic, Nikola Ilic, Marko Dragas, Milos Sladojevic, Miroslav Markovic, Nenad Filipovic, Lazar Davidovic, (2017) Morphological and Biomechanical Features in Abdominal Aortic Aneurysm with Long and Short Neck—CaseControl Study in 64 Abdominal Aortic Aneurysms, *Annals of Vascular Surgery*, vol. 45, no. , pp. 223-230, DOI: 10.1016/j.avsg.2017.06.054
22. Nebojsa Zdravkovic, Zarko Milosevic, Igor Saveljic, Dalibor Nikolic, Vladimir Miloradovic, Nenad Filipovic, Three-Dimensional Biomechanical Model of Benign Paroxysmal Positional Vertigo in the Semi-Circular Canal, *Tehnicki vjesnik-technical gazette*, (2017), vol. 24, str. 1769-1775, doi.org/10.17559/TV-20160723152540.
23. Maja Milosevic, Nikola Mijailovic, Dalibor Nikolic, Nenad Filipovic, Aleksandar Peulic, Mirko Rosic and Suzana Pantovic (2018), Manufacturing of Biodegradable Scaffolds to Engineer Artificial Blood Vessel, *Serbian Journal of Experimental and Clinical Research*, vol. 19, no. 3, pp. 215-221, DOI: 10.1515/sjecr-2017-0032
24. Milanković Ivan, Mijailović Nikola, Končar Igor, Nikolić Dalibor, Filipović Nenad, Peulić Aleksandar, Development of the system for abdominal aortic aneurysm mechanical properties research using “Bubble Inflated” method, *Serbian Journal of Electrical Engineering*, Vol.10, No.3, pp. 415-423, ISSN 2217-7183, Doi 10.2298/SJEE131007013M, 2013
25. Ivan L. Milanković Nikola V. Mijailović Aleksandar S. Peulić Dalibor Nikolić Igor Končar Themis Exarchos Oberdan Parodi, Nenad D. Filipović, Software and Hardware Systems for Abdominal Aortic Aneurysm Mechanical Properties Investigation, *FME Transactions*, Vol.43, No.2, pp. 161-167, ISSN 1451-2092, Doi 10.5937/fmet1502161M, 2015

Proceedings of international scientific conferences	Sum
	51
1. V. Isailovic, M. Nikolic, Z. Milosevic, Igor Saveljic, D. Nikolic, M. Radovic, N. Filipović, Modeling of the coiled cochlea and organ of corti - using for the cochlear implants, ESAO 2015, Leuven, Belgium, September 2–5, 2015. 2. V. Isailovic, M. Nikolic, D. Nikolic, I. Saveljic, N. Filipovic, Using of finite element method for modeling of active cochlea, 2015 IEEE 15th	

- International Conference on Bioinformatics and Bioengineering (BIBE 2015), (2015), 02.-04.11., Belgrade, Serbia, pp. 216-219
3. V. Isailovic, M. Nikolic, Z. Milosevic, I. Saveljic, D. Nikolic, M. Radovic, N. Filipovic, Finite Element Model of Cochlea – Air Conduction and Bone Conduction, ICIST 2015 5th International Conference on Information Society and Technology, (2015), 08.-11.03., Kopaonik, Serbia, Proceedings, Vol. 1, pp. 19-21
 4. Dalibor Nikolić, Igor Saveljić, Miloš Radović, Srđan Aleksandrić, Miloje Tomašević, Vesna Ranković, Nenad Filipović, Prediction of wall shear stress in the arteries with myocardial bridge by neural networks, ICIST 2015 5th International Conference on Information Society and Technology, (2015), 08.-11.03., Kopaonik, Serbia, Proceedings, Vol. 1, pp. 219-222
 5. N. Filipović, D. Nikolić, I. Saveljić, T. Exarchos, O. Parodi, Experimental testing and numerical modeling of stents in the coronary arteries, IX International scientific conference contemporary materials, Banja Luka, 2016, sept. 4-5
 6. Ž. Milošević, D. Nikolić, I. Saveljić, V. Isailović, T. Bibas N. Filipović, Three-dimensional biomechanical and visualisation model of vertigo disease in the semi-circular canal, IX International scientific conference contemporary materials, Banja Luka, 2016, sept. 4-5
 7. D. Nikolic, I. Saveljic, M. Radovic, S. Aleksandric, M. Tomasevic, N. Filipovic, Prediction of coronary plaque position on the arteries with myocardial bridge-neural network, 65th International Congress of the European Society of Cardiovascular and Endovascular Surgery, Belgrade, Serbia, April 21-24, 2016
 8. Igor Saveljic, Lazar Velicki, Ilija Srdanovic, Aleksandar Redzek, Stamneko Susak, Dalibor Nikolic, Nenad Filipovic, Decision support system for selecting optimal coronary revascularization strategy, The 14th International Symposium, Computer Methods in Biomechanics and Biomedical Engineering, Tel Aviv, Israel, September 20–22, 2016.
 9. V. Isailovic, M. Nikolic, D. Nikolic, I. Saveljic, N. Filipovic, “Using of Finite Element Method for Modeling of Mechanical Response of Cochlea and Organ of Corti”, ICIST 2016 6th International Conference on Information Society and Technology, ICIST 2016, (2016), 28.02.-02.03., Kopaonik, Serbia, Proceedings, Vol. 1, pp. 102-105
 10. Žarko Milošević, Velibor Isailović, Igor Saveljić, Dalibor Nikolić, Vladislava Stojić, Nebojša Zdravković, Dušan Pavlović, Nenad

Filipović, Finite Element Modeling of Benign Paroxysmal Positional Vertigo Disease, 4th South-East European Conference on Computational Mechanics - SEECCM 2017, Kragujevac, Serbia, July 3-5, 2017.

11. Dalibor Nikolić, Nenad Filipović, Geometry Optimization of Nitinol Stent Design and Effects on Mechanical Performance: Finite Element Analysis, 4th South-East European Conference on Computational Mechanics - SEECCM 2017, Kragujevac, Serbia, July 3-5, 2017.
12. Nenad Filipovic, Velibor Isailovic, Zarko Milosevic, Dalibor Nikolic, Igor Saveljic, Milica Nikolic, Marija Gacic, Bojana CirkovicAndjelkovic, Exarchos Themis, Dimitris Fotiadis, Gualtiero Pelosi, Oberdan Parodi, Coupled computer modeling of atherosclerosis development in the coronary arteries, 2017 IEEE 17th International Conference on BioInformatics and BioEngineering, BIBE 2017, (2017), 23-25 October, Washington D.C., USA, pp. 1-4
13. Cirkovic, V. Isailovic, D. Nikolic, I. Saveljic, O. Parodi, N. Filipovic, "Prediction of Coronary Plaque Progression Using Data Driven Approach", 3rd EAI International Conference on Future Access Enablers of Ubiquitous and Intelligent Infrastructures, Fabulous 2017, Bucharest, Romania, October 12-14, 2017
14. Nenad Filipovic, Velibor Isailovic, Zarko Milosevic, Dalibor Nikolic, Igor Saveljic, Milica Nikolic, Bojana Cirkovic-Andjelkovic, Exarchos Themis, Dimitris Fotiadis, Gualtiero Pelosi, Oberdan Parodi, Computer Modeling of Atherosclerosis in the Human Arteries, International Conference on Innovative Technologies, IN-TECH 2017, Ljubljana, Slovenia, September 13-15, 2017
15. Nenad Filipovic, Velibor Isailovic, Zarko Milosevic, Dalibor Nikolic, Igor Saveljic, Milos Radovic, Milica Nikolic, Bojana CirkovicAndjelkovic, Exarchos Themis, Dimitris Fotiadis, Gualtiero Pelosi, Oberdan Parodi, "Computational modeling of plaque development in the coronary arteries", Proceedings of the International Conference on Medical and Biological Engineering CMBEBIH, Sarajevo, Bosnia and Herzegovina, March 16-18, 2017
16. Filipovic, I. Saveljic, D. Nikolic, Z. Milosevic, V. Isailovic, O. Parodi, N. Zdravkovic, "Continuum-discrete modelling of plaque development in the coronary arteries", 23rd Congress of the European Society of Biomechanics ESB, Seville, Spain, July 02-05, 2017

17. Nenad Filipovic, Arso Vukicevic, Velibor Isailovic, Dalibor Nikolic, Zarko Milosevic, Igor Saveljic, Nikola Jagic, Oberdan Parodi, Simulation of fractional flow reserve and plaque development in the coronary arteries, 7th International Conference on Computational Bioengineering, Compiègne, France, 6-8 September, 2017
18. N. Filipovic, V. Isailovic, Z. Milosevic, D. Nikolic, I. Saveljic, M. Nikolic, B. Cirkovic-Andjelkovic, M. Radovic, T. Exarchos, D. Fotiadis, G. Pelosi, O. Parodi, "Modeling of plaque development in the coronary arteries", Computer Assisted Radiology and Surgery - CARS 2017, Barcelona, Spain, June 20-24, 2017
19. N. Filipovic, V. Isailovic, Z. Milosevic, D. Nikolic, I. Saveljic, M. Nikolic, B. Cirkovic-Andjelkovic, N. Jagic, E. Themis, D. Fotiadis, G. Pelosi, O. Parodi, Computational Modeling for Plaque Progression and Fractional Flow Reserve in the Coronary Arteries, 6th International Congress of Serbian Society of Mechanics, (2017), June 19-21, Tara, Serbia, Proceedings, pp. 164, abstract, USB paper M3g
20. Nenad Filipovic, Velibor Isailovic, Dalibor Nikolic, Igor Saveljic, Zarko Milosevic, Antonis Sakellarios and Themis Exarchos, In silico stent deployment in the coronary artery with plaque progression, VPH2018: virtual physiological human 2018, Zaragoza, Spain, September 05-07, 2018
21. Dan Krsmanovich, Igor Saveljic, Dalibor Nikolic, Velibor Isailovic, Milica Nikolic, Zarko Milosevic, Gordana Jovicic, Dobrica Milovanovic, Antonis Salellarios, Themis Exarchos, Nenad Filipovic, Numerical model of stent deployment in the stenosed artery and modeling of atherosclerosis growing, 8th World Congress of Biomechanics (WCB2018), Dublin, Ireland, July 08-12, 2018
22. Saveljic, D. Nikolic, Z. Milosevic, V. Isailovic, M. Nikolic, O. Parodi, N. Filipovic, "3D Modeling of Plaque Progression in the Human Coronary Artery", 18th International Conference on Experimental Mechanics (ICEM 2018), Brussels, Belgium, July 01-05, 2018
23. I. Saveljic, V. Isailovic, Z. Milosevic, D. Nikolic, M. Nikolic, B. Cirkovic-Andjelkovic, E. Themis, D. Fotiadis, G. Pelosi, O. Parodi and N. Filipovic, Numerical simulation of atherosclerotic plaque growth in right coronary arteries, International Congress on Computational Mechanics (9th GRACM), Chania, Greece, June 04-06, 2018
24. Nenad Filipovic, Igor Saveljic, Dalibor Nikolic, Zarko Milosevic, Milica Nikolic, Antonis, Sakellarios, Themis Exarchos and Oberdan

- Parodi, Computational Modeling for Plaque Progression in the Coronary Artery, Stent Deployment Modeling Using Contact Algorithm, 2018 IEEE International Conference on Biomedical and Health Informatics, Las Vegas, NV, USA, March 4-7, 2018
25. Velibor Isailovic, Dalibor Nikolic, Igor Saveljic, Antonis Sakellarios, Themis Exarchos, Nenad Filipovic, Stent Deployment Modeling Using Contact Algorithm, 2018 IEEE International Conference on Biomedical and Health Informatics, Las Vegas, NV, USA, March 4-7, 2018
 26. Igor Saveljic, Dalibor Nikolic, Zarko Milosevic, Milica Nikolic, Antonis Sakellarios, Themis Exarchos and Nenad Filipovic, Numerical simulation of blood flow and plaque progression in the right coronary artery, 2018 IEEE International Conference on Biomedical and Health Informatics, Las Vegas, NV, USA, March 4-7, 2018
 27. Igor Saveljić, Dalibor Nikolić, Tijana Djukić, Nenad Filipović, Numerical model of the bio molecular parameters transfer through the coronary artery wall, 7th international congress of Serbian Society of Mechanics 24-26 June 2019, Sremski Karlovci, Serbia
 28. Dalibor Nikolić, Igor Saveljić, Nenad Filipović, Combining numerical methods and parametric optimization of stent design, 7th international congress of Serbian Society of Mechanics 24-26 June 2019, Sremski Karlovci, Serbia
 29. Žarko Milošević, Dalibor Nikolić, Ana Vulović, Nenad Filipović, Hologram and augmented reality biomechanical models of a virtual balance physiotherapist, 7th international congress of Serbian Society of Mechanics 24-26 June 2019, Sremski Karlovci, Serbia
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Patents	Sum 1
Published patent number: P-2019/1035 SISTEM ZA KONTROLISANU BALON DILATACIJU U MEDICINI, (71) ARSENIJEVIĆ, Petar, Mite Cenića 11, 34000 Kragujevac, RS; NIKOLIĆ, Dalibor, Kosovska 28/11, 34000 Kragujevac, RS, 07.08.2019	

CITATION OF SCIENTIFIC PAPERS

Scopus: 193 Citations by 144 documents; h-index: 7

BRIEF DESCRIPTION OF RESEARCH IN THE PREVIOUS PERIOD

Development and optimization of three-dimensional models of endovascular prostheses (stents). CAD/CAM and CEA. FE analysis and optimization of stent design. Experimental testing of stents (endovascular prostheses).

Development of three-dimensional models for solving numerous problems of blood flow through small and large blood vessels, as well as software development for biomedical purposes.

BRIEF DESCRIPTION OF PLANNED RESEARCH IN THE NEXT PERIOD

Further development of three-dimensional models of endovascular prostheses (stents) and testing of their performance and analysis.

Application of numerical methods in order to model and optimize stents and their impact on patient tissue.

Development of software models for faster and better stent design, as well as development of material models for more accurate KE simulations.

Design and development of microfluidic chips (bioreactors).