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16.05. 2024 год.
КРАГУЈЕВАЦ

TEACHING-SCIENTIFIC COUNCIL

Faculty of Engineering, Kragujevac

and

COUNCIL FOR INTERDISCIPLINARY AND MULTIDISCIPLINARY FIELDS

UNIVERSITY OF KRAGUJEVAC

At the meeting of the Council **INTERDISCIPLINARY AND MULTIDISCIPLINARY FIELDS** of the University of Kragujevac held on 16.4.2024. (decision number: IV-07-273/8), we have been appointed as members of the Committee for the composition of the Evaluation report on the scientific topic validity of the doctoral dissertation entitled: **"IN-SILICO MODELLING OF DRUG DISTRIBUTION IN ARTERIES USING AI SURROGATE TECHNIQUES"**, and fulfilment of the candidate's **Leo Benolić, MSc in Electrical Engineering** and the proposed mentor's **Nenad Filipović, full professor** requirements for the preparation of a doctoral dissertation.

Based on the data at our disposal, we submit the following:

**EVALUATION REPORT
ON SCIENTIFIC TOPIC VALIDITY AND
FULFILLMENT OF THE CANDIDATE'S AND PROPOSED MENTOR'S REQUIREMENTS
FOR THE PREPARATION OF A DOCTORAL DISSERTATION**

1. Information about a doctoral dissertation
1.1. Doctoral dissertation title:
IN-SILICO MODELLING OF DRUG DISTRIBUTION IN ARTERIES USING AI SURROGATE TECHNIQUES
1.2. Scientific field of the doctoral dissertation:
Mechanical engineering and Medical sciences
1.3. Justification of the doctoral dissertation topic (up to 15000 characters):
<div>1.3.1. Definition and description of the subject of research</div> <div>The subject of this doctoral dissertation is the development of a model of the interaction between the angioplasty balloon and the arterial wall during angioplasty of the peripheral artery with drug-coated balloons using artificial intelligence surrogate models for finite element method analysis.</div> <div>1.3.2. Starting hypothesis</div> <div> <ul style="list-style-type: none"> The basic hypotheses of the doctoral dissertation, which are based on the set research goals, the applicant's previous research activities, and the results of other authors in the research field, consist of the following assumptions: </div>

- It is possible to develop a surrogate model using DNN that can effectively predict drug distribution in different scenarios.
- It is possible to achieve significant simulation acceleration by creating a surrogate model using DNN and GP compared to the traditional finite element method.
- It is possible to examine differences in prediction errors using DNN and GP and determine which approach is better and for which applications.
- It is possible to develop a user interface and a Python application that will enable visualization and analysis of results, as well as adjustment of input parameters.

1.3.3. Work plan

The dissertation plan is created based on previous experiences, research activities, and analysis of existing scientific literature. The first step is a thorough literature review on the topic of surrogate models and the finite element method. The second step is the establishment of a methodology that includes defining the data used, collecting and preparing the dataset, and selecting the FEM solver for conducting simulations. The third step is generating the results, using neural networks and genetic algorithms, and analyzing them. Finally, the results will be discussed in the context of the current state of the field and the scientific contribution brought by this dissertation.

1.3.4. Research methods

Various modern scientific research methods will be used in the preparation of the doctoral dissertation. The methods include numerical, programming, and artificial intelligence methods.

Programming methods: Development of surrogate models using DNN and GP, which can be used to model complex nonlinear relationships. These methods allow the creation of precise models and have become standard in medical research.

Finite Element Method (FEM): This method will be used for numerical simulation and analysis. It is widely accepted in engineering disciplines, especially in bioengineering, due to its ability to handle complex geometric and physical problems. FEM allows simultaneous simulation of solids, fluids, and diffusion, providing results that are difficult to obtain through in vitro and in vivo tests. This provides vital information for medical professionals, contributing to better understanding and optimization of processes.

Python: With its rich ecosystem of libraries and frameworks, Python will be the primary programming language for the implementation and integration of DNN and GP methods. The combination of these methods represents an innovative approach to medical research, ensuring greater accuracy, speed, and flexibility in simulations and analyses.

1.3.5. Research objective

The primary goal of this research is to develop a precise application that would simulate and analyze drug distribution in the arterial wall after angioplasty with a drug-coated balloon.

1.3.6. Expected results

Developed application that simulates drug distribution in the arterial wall after angioplasty with a drug-coated balloon, using an artery model.

Creation of a numerical model of the artery using the finite element method, which will enable accurate and detailed simulation of the drug distribution process and application of the simulation to generate a comprehensive dataset reflecting different scenarios and treatment parameters.

Creation of a surrogate model using deep neural networks (DNN) and genetic programming (GP) for faster and more efficient prediction of results based on various input parameters.

Development of a user interface for the application using the Python programming language, allowing users to easily adjust input parameters, calculate, and visualize results.

1.3.7. Draft content the doctoral dissertation with suggested literature to be used (up to 10 key literature sources)

1. Introduction

2. Theoretical considerations of various methods applied in the dissertation
3. Formulation of artificial intelligence for drug distribution simulation
4. Input design for optimized application of artificial intelligence
5. Creation of surrogate models
6. Development of the user interface and application in Python
7. Concluding remarks
8. Literature

The literature to be used includes but is not limited to:

- Leo Benolić, Lemana Spahić, Safi Qamar, Dalibor Nikolić, Nenad Filipović, Development of a Mathematical Model for Balloon Diameter Calculation in Percutaneous Transluminal Angioplasty Using Genetic Programming – The Second Serbian International Conference on Applied Artificial Intelligence (SICAAI), Kragujevac, Serbia, May 2023.
- L. Spahić, L. Benolić, S. Ur-Rehman Qamar, B. V. Simić, Milićević, M. Milošević, T. Geroski, N. Filipović, Prediction of coronary plaque progression using data mining and artificial neural networks, 13th International Conference on Information Society and Technology ICIST 2023 (March, 2023).
- L. Spahić, L. Benolić, S. Ur-Rehman Qamar, B. V. Simić, Milićević, M. Milošević, N. Filipović, Coupled Modeling of Drug-Coated Balloon Treatment of Peripheral Artery Disease 28th Congress of the European Society of Biomechanics ESB 2023 (July, 2023)
- L. Spahić, L. Benolić, S. Ur-Rehman Qamar, B. V. Simić, Milićević, M. Milošević, T. Geroski, N. Filipović, Improving the accuracy of peripheral artery plaque progression models with Artificial Intelligence, X International Conference on Computational Bioengineering ICCB 2023 (September, 2023)
- Qamar, S. U. R., Spahić, L., Benolić, L., Zivanovic, M., & Filipović, N. (2023). Treatment of Peripheral Artery Disease Using Injectable Biomaterials and Drug-Coated Balloons: Safety and Efficacy Perspective. *Pharmaceutics*, 15(7), 181

1.4.Link to previous research in this field with mandatory citation of up to 10 relevant references:

Research within the doctoral dissertation topic will rely on research presented in the following initial literature:

- Leo Benolić, Lemana Spahić, Safi Qamar, Dalibor Nikolić, Nenad Filipović, Development of a Mathematical Model for Balloon Diameter Calculation in Percutaneous Transluminal Angioplasty Using Genetic Programming – The Second Serbian International Conference on Applied Artificial Intelligence (SICAAI), Kragujevac, Serbia, May 2023.
- L. Spahić, L. Benolić, S. Ur-Rehman Qamar, B. V. Simić, Milićević, M. Milošević, T. Geroski, N. Filipović, Prediction of coronary plaque progression using data mining and artificial neural networks, 13th International Conference on Information Society and Technology ICIST 2023 (March, 2023).
- L. Spahić, L. Benolić, S. Ur-Rehman Qamar, B. V. Simić, Milićević, M. Milošević, N. Filipović, Coupled Modeling of Drug-Coated Balloon Treatment of Peripheral Artery Disease 28th Congress of the European Society of Biomechanics ESB 2023 (July, 2023)
- L. Spahić, L. Benolić, S. Ur-Rehman Qamar, B. V. Simić, Milićević, M. Milošević, T. Geroski, N. Filipović, Improving the accuracy of peripheral artery plaque progression models with Artificial Intelligence, X International Conference on Computational Bioengineering ICCB 2023 (September, 2023)
- Qamar, S. U. R., Spahić, L., Benolić, L., Zivanovic, M., & Filipović, N. (2023). Treatment of Peripheral Artery Disease Using Injectable Biomaterials and Drug-Coated Balloons: Safety and Efficacy Perspective. *Pharmaceutics*, 15(7), 181

1.5. Evaluation of the scientific topic validity of the doctoral dissertation:

Based on the application for the doctoral dissertation topic, the Commission concludes that there is a need for the development of a surrogate model for analyzing the interaction of the angioplasty balloon and the arterial wall during angioplasty of the peripheral artery with drug-coated balloons. The doctoral dissertation is focused on the real issue of drug distribution during angioplasty and uses modern technologies that align with current advances in the field.

The Commission concludes that the proposed doctoral dissertation topic, with the explained subject as well as the work objectives, scientific contributions, and expected results, arising from independent research and detailed analysis of available scientific papers, is an original idea.

2. Information about the candidate

2.1. Name and surname of the candidate:

Leo Benolić

2.2. Doctoral academic studies' study programme and year of enrolment:

Bioengineering, 2021

2.3. Candidate's biography (up to 1500 characters)

Leo Benolić was born on January 1, 1996, in Rijeka, Croatia. He completed elementary school in Umag and secondary school in Buje, at the Gospodarska škola Buje, specializing in electrical engineering. During high school, he participated in various competitions.

In 2014, he enrolled in undergraduate studies in electrical engineering at the Technical Faculty in Rijeka and completed them on time with a final project titled "Intelligent Control of LED Lighting," in which he demonstrated the importance of controlling LED systems to ensure operation under extreme conditions.

Subsequently, in 2017, he enrolled in master's studies in electrical engineering, specializing in automation, and completed them in 2021 with a thesis titled "Designing an Autonomous Vehicle" under the mentorship of Professor Zlatan Car. In this work, he demonstrated his knowledge and affinity for using artificial intelligence for vehicle path planning. During his studies, he worked on various projects and collaborated with industry, utilizing knowledge in electrical engineering gained through years of experience. During his undergraduate studies, he worked on various LED lighting solutions, mostly related to fishing and tourism.

During his master's studies, he also worked on bioengineering projects such as the "Microscope Incubation Chamber" for Željko Maglica, Department of Biotechnology, University of Rijeka, in 2018. He enrolled in doctoral academic studies in the academic year 2021/2022 at the Faculty of Engineering Sciences, University of Kragujevac. To date, he has successfully passed all the exams as per the curriculum. As part of his activities, literature was collected, and research was conducted in the field of his doctoral dissertation topic, based on which papers were published.

He began working as a researcher at the start of his career and is employed at BioIRC as part of the DECODE project (Grant Agreement No. 956470), funded by the European Commission.

He enrolled in doctoral academic studies in the academic year 2021/2022 in the bioengineering study program at the Faculty of Engineering Sciences, University of Kragujevac. During this year, he has successfully passed all the exams as per the curriculum. As part of his activities, literature was collected, and simulations were conducted in the field of his doctoral dissertation topic, based on which papers were published.

2.4. Overview of the candidate's scientific research work (up to 1500 characters):

Previous scientific research work and interests have been predominantly focused on the field of electrical engineering and the application of artificial intelligence in engineering applications. During his undergraduate and master's academic studies, Leo Benolić worked on various projects and collaborated with industry, utilizing knowledge in electrical engineering gained through years of experience.

During his undergraduate studies, Leo worked on various LED lighting solutions, mostly related to fishing and tourism. As part of his master's studies, he worked on bioengineering projects such as the "Microscope Incubation Chamber" for Željko Maglica from the Department of Biotechnology, University of Rijeka.

Since the beginning of his doctoral studies at the Faculty of Engineering Sciences, University of Kragujevac, he has successfully passed all the exams as per the curriculum. As part of his activities, literature was collected, and research was conducted in the field of his doctoral dissertation topic, based on which papers were published.

In 2021, he became a researcher at the BioIRC institute and is employed on the DECODE project (Grant Agreement No. 956470), funded by the European Commission. During his scientific research work, Leo has worked on the development of artificial intelligence models and their application in medical research, which includes the analysis of the interaction of the angioplasty balloon and the arterial wall.

Leo Benolić is the author and co-author of several scientific papers, including papers in indexed journals and conference proceedings. He is also actively involved in the work of international societies for electrical engineering and bioengineering, contributing to advancements in these fields.

2.5. The list of published scientific papers of the candidate from the scientific field related to the topic of the doctoral dissertation (authors, paper title, journal title, volume, year of publication, pages from-to, DOI number¹, category):

Selected full-text announcements from international conferences (M33):

1. Leo Benolić, Anđela Blagojević, Tijana Šušteršič, Zlatan Car, Nenad Filipović, Mathematical Modeling of COVID-19 Spread Using Genetic Programming Algorithm. The First Serbian International Conference on Applied Artificial Intelligence (SICAAI), Kragujevac, Serbia, May 2022.
2. Ana Mirić, Jelena Pavić, Leo Benolić, Dalibor Nikolić, Nevena Milivojević, Marko Živanović, Irena Tanasković, Nenad Filipović, Controlled Drug Release from a 3D Printed Tablet, The First Serbian International Conference on Applied Artificial Intelligence (SICAAI), Kragujevac, Serbia, May 2022.
3. L. Spahić, L. Benolić, S. Ur-Rehman Qamar, B. V. Simić, Milićević, M. Milošević, T. Geroski, N. Filipović, Prediction of coronary plaque progression using data mining and artificial neural networks, 13th International Conference on Information Society and Technology ICIST 2023 (March, 2023).
4. L. Spahić, L. Benolić, S. Ur-Rehman Qamar, B. V. Simić, Milićević, M. Milošević, N. Filipović, Coupled Modeling of Drug-Coated Balloon Treatment of Peripheral Artery Disease 28th Congress of the European Society of Biomechanics ESB 2023 (July, 2023)
5. L. Spahić, L. Benolić, S. Ur-Rehman Qamar, B. V. Simić, Milićević, M. Milošević, T. Geroski, N. Filipović, Improving the accuracy of peripheral artery plaque progression models with Artificial Intelligence, X International Conference on Computational Bioengineering ICCB 2023 (September, 2023)

¹ If the publication does not have a DOI number, enter the ISSN and ISBN

6. Leo Benolić, Lemana Spahić, Safi Qamar, Dalibor Nikolić, Nenad Filipović, Development of a Mathematical Model for Balloon Diameter Calculation in Percutaneous Transluminal Angioplasty Using Genetic Programming – The Second Serbian International Conference on Applied Artificial Intelligence (SICAAI), Kragujevac, Serbia, May 2023.
7. T. Mladenović, M. Živanović, L. Benolić, J. Pavić, N. Filipović, Genetic Programming Approach in Better Understanding of the Relationship Between the Number of Viable Cells and Concentration of O₂-, NO₂- and GSH Produced in Cancer Cells Treated With PD(II) Complexes, The Second Serbian International Conference on Applied Artificial Intelligence (SICAAI), Kragujevac, Serbia, May 2023.

Paper in a scientific journal:

1. Leo Benolić, Zlatan Car, Nenad Filipović "Mathematical Modeling of COVID-19 Spread Using Genetic Programming Algorithm." Applied Artificial Intelligence: Medicine, Biology, Chemistry, Financial, Games, Engineering, Springer, 2023, DOI: 10.1007/978-3-031-29717-5_19. - M33
2. Dašić, Lazar; Radovanović, Nikola; Šušteršič, Tijana; Blagojević, Anđela; Benolić, Leo; and Filipović, Nenad, Patch-based Convolutional Neural Network for Atherosclerotic Carotid Plaque Semantic Segmentation, IPSI Transactions on Internet Research, Vol. 19, No. 1, January 2022, pp. 57-62. - M53
3. Qamar, S. U. R., Spahić, L., Benolić, L., Zivanovic, M., & Filipović, N. (2023). Treatment of Peripheral Artery Disease Using Injectable Biomaterials and Drug-Coated Balloons: Safety and Efficacy Perspective. *Pharmaceutics*, 15(7), 181 - M21

2.6. Assessment of the candidate's fulfilment of requirements according to the study programme, faculty's general act and university's general act (up to 1000 characters):

Based on the biography, bibliography, and previous scientific research work of the candidate, Leo Benolić, the commission concludes that the candidate meets all the requirements for the candidate as stipulated by the study program, the general act of the faculty, and the general act of the University.

3. Information about the proposed mentor

3.1. Name and surname of the proposed mentor:

Nenad Filipović

3.2. Academic title and election date:

Prof. Dr. Nenad Filipović, May 27, 2010

3.3. Scientific field/narrow scientific field for which the mentor is elected:

Applied Mechanics, Applied Informatics, and Computer Engineering

3.4. Scientific-research organization where the mentor is employed:

Faculty of Engineering Sciences, University of Kragujevac

3.5. The list of references required to fulfil mentorship conditions according to Standard 9 (authors, paper title, journal title, volume, year of publication, pages from-to, DOI number, category):

1. Jeremic J, Govoruskina N, Bradic J, Milosavljevic I, Srejavic I, Zivkovic V, Jeremic N, Nikolic Turnic T, Tanaskovic I, Bolevich S, Jakovljevic V, Bolevich S, Zivanovic MN, Okwose N, Seklic D, Milivojevic N, Grujic J, Velicki L, MacGowan G, Jakovljevic DG, Filipovic N. Sacubitril/valsartan reverses cardiac structure and function in an experimental

model of hypertension-induced hypertrophic cardiomyopathy. *Mol Cell Biochem.* 2023 Mar 30. ISSN: 0300-8177 doi: 10.1007/s11010-023-04690-7. M23

2. Kojic M, Milosevic M, Simic V, Milicevic B, Geroski V, Nizzero S, Ziemys A, Filipovic N, Ferrari M. Smeared Multiscale Finite Element Models for Mass Transport and Electrophysiology Coupled to Muscle Mechanics. *Front Bioeng Biotechnol.* 2019 Dec 10;7:381. doi: 10.3389/fbioe.2019.00381. ISSN: 2296-4185 M21
3. Koshy A, Okwose NC, Nunan D, Toms A, Brodie DA, Doherty P, Seferovic P, Ristic A, Velicki L, Filipovic N, Popovic D, Skinner J, Bailey K, MacGowan GA, Jakovljevic DG. Association between heart rate variability and haemodynamic response to exercise in chronic heart failure. *Scand Cardiovasc J.* 2019 Apr;53(2):77-82. doi: 10.1080/14017431.2019.1590629. ISSN: 1401-7431, 1651-2006 M23
4. Velicki L, Jakovljevic DG, Preveden A, Golubovic M, Bjelobrk M, Ilic A, Stojsic S, Barlocco F, Tafelmeier M, Okwose N, Tesic M, Brennan P, Popovic D, Ristic A, MacGowan GA, Filipovic N, Maier LS, Olivotto I. Genetic determinants of clinical phenotype in hypertrophic cardiomyopathy. *BMC Cardiovasc Disord.* 2020 Dec 9;20(1):516. doi: 10.1186/s12872-020-01807-4. ISSN: 1471-2261 M23
5. Smole T, Žunković B, Piculin M, Kokalj E, Robnik-Šikonja M, Kukar M, Fotiadis DI, Pezoulas VC, Tachos NS, Barlocco F, Mazzarotto F, Popović D, Maier L, Velicki L, MacGowan GA, Olivotto I, Filipović N, Jakovljević DG, Bosnić Z. A machine learning-based risk stratification model for ventricular tachycardia and heart failure in hypertrophic cardiomyopathy. *Comput Biol Med.* 2021 Aug;135:104648. doi: 10.1016/j.compbiomed.2021.104648. ISSN: 00104825 M21

3.6. The list of references demonstrating mentor's expertise related to the proposed doctoral dissertation topic (authors, paper title, journal title, volume, year of publication, pages from-to, DOI number, category):

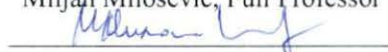
1. Filipovic, N., Kojic, M., Tsuda, A., Modeling thrombosis using dissipative particle dynamics method, *Philosophical Transactions of the Royal Society. A*, Vol.366, No.1879, pp. 3265-3279, ISSN 1364-503, 2008. M21
2. G Pelosi, D Panetta, F Vozzi, F Viglione, N Filipovic, I Saveljic, T Exarchos, P471 Site-specific shear stress-plaque severity relations by high axial resolution coronary profiling in an animal model of atherogenesis, *Cardiovascular research*, Vol.103, No.1, pp. -, ISSN 0008-6363, 2014. M21
3. Hetterich Holger, Jaber Ahmad, Gehring Moritz, Curta Adrian, Bamberg Fabian, Filipovic Nenad D, Rieber Johannes, Coronary Computed Tomography Angiography Based Assessment of Endothelial Shear Stress and Its Association with Atherosclerotic Plaque Distribution In-Vivo, *Plos One*, Vol.10, No.1, pp. -, ISSN 1932-6203, Doi 10.1371/journal.pone.0115408, 2015. M21
4. Arso M Vukicevic, Serkan Çimen, Nikola Jagic, Gordana Jovicic, Alejandro F Frangi, Nenad Filipovic, Three-dimensional reconstruction and NURBS-based structured meshing of coronary arteries from the conventional X-ray angiography projection images, *Scientific reports*, Vol.8, No.1, pp. 1-20, ISSN 2045-2322, Doi 10.1038/s41598-018-19440-9, 2018. M21
5. O. Parodi, T. Exarchos, P. Marraccini, F. Vozzi, Z. Milosevic, D. Nikolic, A. Sakellarios, P. Siogkas, D.Fotiadis, N.Filipovic, Patient-specific prediction of coronary plaque growth from CTA angiography: a multiscale model for plaque formation and progression, *Information Technology in Biomedicine*, Vol.16, No.5, pp. 952-956, ISSN -, 2012. M21
6. Nenad Filipovic, Dalibor Nikolic, Igor Saveljic, Zarko Milosevic, Themis Exarchos, Gualtiero Pelosi and Oberdan Parodi, Computer simulation of three dimensional plaque formation and progression in the coronary artery, *Computers and Fluids*, Vol.88, No.-, pp. 826-833, ISSN 0045-7930, Doi 10.1016/j.compfluid.2013.07.006, 2013. M21

<p>7. D Nikolić, M Radović, S Aleksandrić, M Tomašević, N 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, ISSN 0169-2607, Doi 10.1016/j.cmpb.2014.07.012, 2014. M21</p> <p>8. Hetterich Holger, Jaber Ahmad, Gehring Moritz, Curta Adrian, Bamberg Fabian, Filipovic Nenad D, Rieber Johannes, Coronary Computed Tomography Angiography Based Assessment of Endothelial Shear Stress and Its Association with Atherosclerotic Plaque Distribution In-Vivo, Plos One, Vol.10, No.1, pp. -, ISSN 1932-6203, Doi 10.1371/journal.pone.0115408, 2015. M21</p>
3.7. Is the proposed mentor on the List of mentors of the accredited DAS study programme?
YES
3.8. Assessment of the mentor's fulfilment of requirements according to the study programme, faculty's general act, and university's general act (up to 1000 characters):
[entry]
4. Information about the proposed co-mentor
4.1. Name and surname of the proposed co-mentor:
[entry]
4.2. Academic title and election date:
[entry]
4.3. Scientific field/narrow scientific field for which the co-mentor is elected:
[entry]
4.4. Scientific-research organization where the co-mentor is employed:
[entry]
4.5. The list of references required to fulfil co-mentorship conditions according to Standard 9 (authors, paper title, journal title, volume, year of publication, pages from-to, DOI number, category):
[entry]
4.6. The list of references demonstrating co-mentor's expertise related to the proposed doctoral dissertation topic (authors, paper title, journal title, volume, year of publication, pages from-to, DOI number, category):
[entry]
4.7. Is the proposed co-mentor on the List of mentors of the accredited DAS study programme?
[choose]
4.8. Assessment of the co-mentor's fulfilment of requirements according to the study programme, faculty's general act, and university's general act (up to 1000 characters):
[entry]
5. CONCLUSION
After reviewing the submitted documentation, the Committee for the composition of the Evaluation report on the scientific topic validity of the doctoral dissertation and fulfilment of the candidate's and proposed mentor's requirements recommends the approval to the candidate Leo Benolić to proceed with the preparation of a doctoral dissertation entitled "IN-SILICO MODELLING OF DRUG

DISTRIBUTION IN ARTERIES USING AI SURROGATE TECHNIQUES". We also approve the appointment of Dr. Nenad Filipović, Full Professor / Faculty of Engineering Sciences, University of Kragujevac as the mentor/co-mentor.

Committee members:

Miljan Milošević, Full Professor



Faculty of Information Technology, Metropolitan
University in Belgrade

Scientific Field: Information Technology and
Systems

Committee president

Dr. Dalibor Nikolić, Research Associate

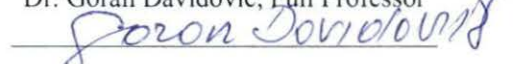


Faculty of Information Technology, Metropolitan
University in Belgrade

Scientific Field: Applied Informatics in Engineering

Committee member

Dr. Goran Davidović, Full Professor



Faculty of Medical Sciences, University of
Kragujevac

Scientific Field: Internal Medicine

Committee member