Curriculum vitae

PERSONAL INFORMATION:

NAME	Marija Ivanović (maiden Petrović)
DATE OF BIRTH:	26.01.1985.
ADDDRESS:	Prve pruge 37, 11000 Belgrade
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WORK EXPERIENCE:

2015 – present:	**Research Assistant Professor** Vinča Institute of Nuclear Sciences, Laboratory for Atomic Physics *Duties*: development of fiber-optical sensors for applications in pulmonology and cardiology; cooperation with pulmonologists in preparation and execution of pilot clinical studies; biomedical signal processing (in Matlab); theory and numerical modelling of optical sensor sensitivity; preparation of grant proposals
May 2019 October, May 2018 and Sep 2017	**Visiting researcher** University of Brescia, Brescia, Italy Department of Information Engineering *Duties:* Extraction of deep learning (in Keras) and hand crafted (in Matlab) features for defibrillation outcome prediction
Nov 2017 – Mar 2018:	**Visiting researcher** Friedrich-Alexander University, Erlangen-Nuremberg Digital Sports Group, Pattern Recognition Lab *Duties*: Development of defibrillation outcome classifier using machine learning algorithms (in Weka and ECST) and deep learning (in TensorFlow and Keras); involvement in Biomedical signal analysis lectures
2010 – 2015:	**Research Associate (PhD student)** Vinča Institute of Nuclear Sciences, Laboratory for Atomic Physics *Duties*: development of fiber-optical sensors for measurement of respiratory and cardiovascular pulsations: sensor characterisation, development and testing of interrogation schemes, data acquisition and synchronisation of opto-electronic interrogator with ECG and phonocardiogram (in Labview); measurements on healthy volunteers; biomedical signal processing (in Matlab); numerical modelling of fiber-grating sensors (in Comsol); one month training for fabrication and characterization of fiber-optical gratings at Aston Institute of Photonic Technologies, Birmingham, United Kingdom

EDUCATION:

2014:	**Ph.D. degree in Fiber-optical sensors for applications in medical diagnostics** Department of Biomedical Engineering and Technology, University of Belgrade average grade: 10.00 (out of 10) Ph.D. thesis: An optical fiber-grating device for measuring cardiovascular and respiratory pulsations
2009:	**M.Sc. degree in Nuclear and clinical medical devices and their applications** Department of Biomedical and Environmental Engineering, School of Electrical Engineering, University of Belgrade average grade: 9.83 (out of 10) M.Sc. thesis: Determination of the atomic composition of tissues based on CT numbers
2008:	**B.Sc. degree in Nuclear and clinical medical devices and their applications** Department of Biomedical and Environmental Engineering, School of Electrical Engineering, University of Belgrade average grade: 9.64 (out of 10) B.Sc. thesis: Simulation of radiographic imaging

PROJECTS

2020 – 2022:	KardioPal diagnostics ID=50258, COLLABORATIVE GRANT SCHEME Program, Innovation fund Republic of Serbia
2018 – 2019:	KardioPal - wireless diagnostic platform with personal handheld ECG device ID=1159, Mini grants program, Innovation fund Republic of Serbia
2015 – 2019:	H2020 MSCA RISE 691051 – Capturing and quantitative analysis of multi-scale multi-channel diagnostic data - CARDIALLY
2013 – 2016:	COST MP1205 - Advances in Optofluidics: Integration of Optical Control and Photonics with Microfluidics
2013 – 2016:	COST BM 1205 - European Network for Skin Cancer and Detection using Laser Imaging
2011 – 2019:	III 45010 - Photonics of micro-and nanostructured materials, Ministry of Education and Science of Serbia
2010 – 2011:	P 141034 - Physics of Complex Phenomena in Plasmas, Condensed Matter Physics and Nonlinear Optics, Ministry of Science and Technology of Serbia

PERSONAL SKILLS:

Computer:	Matlab, Labview, Weka, Comsol, Fortran, Python, Keras, Tensorflow, C MS Office, Corel Draw, Origin, LaTeX
Languages:	**Serbian** – Native speaker **English** – Fluent **German** – Intermediate (Level B1)

CONFERENCE ORGANIZATION:

2019:	Member of Organizing committee of The seventh International School and Conference on Photonics – PHOTONICA 2019, Belgrade, Serbia
2015:	Member of Organizing committee of The fifth International School and Conference on Photonics – PHOTONICA 2015, Belgrade, Serbia
2011:	Member of Organizing committee of The third International School and Conference on Photonics – PHOTONICA 2011, Belgrade, Serbia

PERSONAL GRANTS AND AWARDS:

2009:	Award for the best graduate student at the Department of Biomedical engineering
2007/2008:	Belgrade scholarship for the best final-year students
2004-2008:	Student scholarship of Ministry of Education

Certificates:

2019:	Python Beyond the Basics – Object-Oriented Programming on Udemy
2018	Deep Learning Specialization, a 5-course online specialization on Coursera.org authorized by Stanford University, USA
2017:	Machine Learning Specialization, a 4-course online specialization on Coursera.org authorized by the University of Washington, USA
2017	Python Programming: A concise Introduction course, a online course specialized on Coursera.org authorized by Wesleyan University, USA

MENTORSHIP:

2018 - :	Supervisor of 2 Phd students
2014:	Supervisor of a IAESTE summer student from Great Britain during the two-month practice at Vinča Institute of Nuclear Sciences, Belgrade, Serbia
2014:	Supervisor of a undergraduate student during the three-month student practice at Vinča Institute of Nuclear Sciences, Belgrade, Serbia
2012-2013:	Co-supervisor of 2 M.Sc. students and 1 B.Sc. student for characterization of fiber-optical grating sensors

OUTREACH:

2011 – 2013:	Participant at the manifestation „Open Door Days" as a part of popularization of science in Serbia, Vinča Institute of Nuclear Sciences, Belgrade, Serbia
2012:	Participant at the manifestation „Vinčina naučionica" (Vinča science workshop) as a part of popularization of science in Serbia, Vinča Institute of Nuclear Sciences, Belgrade, Serbia

PATENTS:

1. B. Bojović, M. Vukčević, J. Petrović, **M. Petrović**, I. Ilić, A. Daničić, T. Allsop and Lj. Hadžievski, „Apparatus and method for monitoring respiratory volumes and synchronization of the triggering in mechanical ventilation by measuring the local curvature of the torso surface", Patent application number PCT/RS2013/000016, WO 2014035272 A1

PROFFESIONAL INTERESTS:

Machine and deep learning
Medical diagnostic devices
Biomedical signal processing
Electrophysiological measurements

PERSONAL INTERESTS:

Sports: Taekwondo (Member of the B national taekwondo team (2001-2007))
Jazz ballet
Jogging