



Curriculum Vitae

Personal information

Name & Surname: Stefan Borik
Department: Dept. of Electromagnetic and Biomedical Engineering
Research group: HemodynamiX Lab
Research group web-page: <https://www.researchgate.net/lab/HemodynamiX-Lab-Stefan-Borik>
Research rank: R3 – established researcher
Scientific identifiers
ORCID: 0000-0003-0765-8756 WoS ID: AAR-4186-2020 Scopus ID: 55321431200

Education

2021-present: Associate Professor, Faculty of Electrical Engineering and Information Technology, University of Zilina, Zilina, Slovakia
2011-2014: PhD. in Theoretical Electrical Engineering, Faculty of Electrical Engineering and Information Technology, University of Zilina, Zilina, Slovakia
Month/Year: MSc. in Biomedical Engineering, Faculty of Electrical Engineering and Information Technology, University of Zilina, Zilina, Slovakia
Month/Year: BSc. In Biomedical Engineering, Faculty of Electrical Engineering and Information Technology, University of Zilina, Zilina, Slovakia

Current position

01/2021-present: Associate Professor, Dept. of Electromagnetic and Biomedical Engineering, Faculty of Electrical Engineering and Information Technology, University of Zilina, Zilina, Slovakia

Previous positions

11/2023 – 11/2024: Visiting Research Scientist, School of Medicine, Dept. of Anesthesiology, Yale University, New Haven, CT
01/2022 – 01/2023: Visiting Faculty, Faculty of Electrical Engineering, Indian Institute of Technology Madras, 600036 Chennai, Tamil Nadu, India
07/2022 – 09/2023: Researcher, German Society for Osteopathic Medicine, Mannheim, Germany
03/2017 – 05/2018: Hardware specialist – developer, CEIT, a.s., Univerzitna 8661/6A, 010 08 Zilina, Slovakia
09/2014 – 01/2021: Assistant Professor, Dept. of Electromagnetic and Biomedical Engineering, Faculty of Electrical Engineering and Information Technology, University of Zilina, Zilina, Slovakia

Scholarships

12/2023 – 05/2024: Yale University, USA, National Scholarship Programme of the Slovak Republic
07/2022 – 10/2022: RWTH Aachen, Germany, National Scholarship Programme of the Slovak Republic
09/2020 – 11/2020: RWTH Aachen, Germany, National Scholarship Programme of the Slovak Republic
07/2019 – 10/2019: RWTH Aachen, Germany, National Scholarship Programme of the Slovak Republic

03/2014 – 04/2014	RWTH Aachen, Germany, National Scholarship Programme of the Slovak Republic
04/2013 – 05/2013	TU Ilmenau, Germany, DAAD
04/2010 – 08/2010	RWTH Aachen, Germany, ERASMUS+

Awards

2022	Rector's Award for 1st place in the category: grant project of researchers up to 35 years of age, University of Zilina, University of Zilina, Zilina, Slovakia
2021	Dean's Award of the Faculty of Electrical Engineering in the category: Science, Research, and Innovation
2017	Golden Fatima 2017, The expert committee at the Trenčin City of Fashion exhibition awarded the prize in the category of new technologies to the product: Smart clothing, Trenčin, Slovakia
2013	Shared 1st place in the doctoral student science competition, Faculty of Electrical Engineering, University of Zilina, University of Zilina, Zilina, Slovakia
2011	Award of the Dean of the Faculty of Electrical Engineering for outstanding performance during master studies
2011	1st place in the master student science competition, Faculty of Electrical Engineering, University of Zilina, University of Zilina, Zilina, Slovakia
2009	1st place in the bachelor student science competition, Faculty of Electrical Engineering, University of Zilina, University of Zilina, Zilina, Slovakia

Students & post-docs supervisions

No. MSc. students	No. PhD. students	No. Post-docs
24	4	1

Organization of scientific meetings & conferences

2026	Scientific co-chair, 16th International Conference - ELEKTRO 2026, Zilina, Slovakia
2023	Scientific Committee, 27th International Student Conference on Electrical Engineering - POSTER 2023, Prague, Czech Republic
2022	Scientific Committee, 14th International Conference - ELEKTRO 2022, Krakow, Poland

Institutional responsibilities

09/2014-present	Dept. ERASMUS+ coordinator, Dept. of Electromagnetic and Biomedical Engineering, Faculty of Electrical Engineering and Information Technology, University of Zilina, Zilina, Slovakia
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Editorial and reviewing activities

Lead journal editor	Member of editorial board of journal	No. journal reviews
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Membership in scientific societies

2024 – present	North American Artery (NAA), USA
2023 – present	Slovak Medical Society, Slovakia

Scientific collaborations

1 – Yale University, School of Medicine, Dept. of Anesthesiology, New Haven, CT, USA
Topic/Area: Hemodynamic regulation under lower body negative pressure, cerebral autoregulation, and obstetric hemodynamics including preeclampsia; photoplethysmography imaging and multimodal monitoring in human studies.

2 – RWTH Aachen, Medical Information Technology (MedIT), Helmholtz-Institute for Biomedical Engineering, Aachen, Germany

Topic/Area: Biomedical signal processing and camera-based vital sign monitoring; microcirculation research to better understand physiological regulation and autonomic processes.

3 – Courant Institute of Mathematical Sciences, New York University, New York, NY, USA

Topic/Area: Applied mathematics and computational methods in biomedical signal analysis

4 – Department of Electrical Engineering, Indian Institute of Technology Madras, Chennai, India

Topic/Area: Magnetic induction measurement of cardiorespiratory activity and development of biomedical instrumentation for non-contact physiological monitoring.

5 – 1st Department of Internal Medicine, Faculty of Medicine, Comenius University, Bratislava, Slovakia

Topic/Area: Photoplethysmography imaging and clinical research on microcirculatory changes in diabetes mellitus and related metabolic disorders.

6 – Department of Physiology and Biomedical Center Martin, Jessenius Faculty of Medicine, Comenius University, Martin, Slovakia

Topic/Area: Experimental physiology and autonomic nervous system research

Publications

No. journal publications					No. conference publications	
Q1	Q2	Q3	Q4	No-Q	Invited/Keynote	Contributed
8	8	4	3	7	2	52