



Curriculum Vitae

Personal information

Name & Surname Daniel BENEDIKOVIC
Department: Multimedia and Information-Communication Technology FEIT UNIZA
Research group: Laboratory of Integrated Photonics and Optical Communications
Research group web-page: <https://optolab.feit.uniza.sk/>
Research rank R4 – leading researcher
Scientific identifiers
ORCID: 0000-0002-2239-0041 **WoS ID:** J-7829-2019 **Scopus ID:** 5303716300

Education

06/2021 Scientific Qualification Degree IIa, Slovak Academy of Science, Slovakia
04/2015 PhD., Faculty of Electrical Engineering, University of Zilina, Slovakia
06/2011 MSc., Faculty of Electrical Engineering, University of Zilina, Slovakia
06/2009 BSc., Faculty of Electrical Engineering, University of Zilina, Slovakia

Current position

07/2022 – to date Associate Professor, Faculty of Electrical Engineering and Information Technology, University of Zilina, Slovakia
04/2023 – to date Adjunct Research Professor, Dept. Electronics, Carleton University, Canada

Previous positions

04/2021 – 06/2023 R&D coordinator, University Science Park, University of Zilina, Slovakia
12/2021 – 12/2022 Visiting Research Professor, Dept. Electronics, Carleton University, Canada
10/2020 – 06/2022 Senior Researcher, Faculty of Electrical Engineering and Information Technology, University of Zilina, Slovakia
11/2015 – 09/2022 Post-doc Researcher, Centre de Nanosciences et de Nanotechnologies, CNRS, Universite Paris-Saclay, France
10/2015 – 05/2015 Junior Researcher, Faculty of Electrical Engineering, University of Zilina, Slovakia
09/2011 – 04/2015 Research and Teaching Assistant, Faculty of Electrical Engineering, University of Zilina, Slovakia
09/2012 – 12/2012 Telecommunication Engineer, Towercom, a.s., Slovakia

Scholarships

03/2014 – 04/2014 VTT Technical and Research Centre of Finland, Espoo, Finland funded by EURODOTS programme (educational internship)
02/2014 – 03/2014 Abdus Salam International Centre for Theoretical Physics, Trieste, Italy funded by UNESCO & United Nations (educational internship)
03/2013 – 09/2013 National Research Council Canada, Ottawa, Canada funded by national Scholarship Programme of Slovak Republic (research internship)
01/2013 – 03/2013 University of Malaga, Malaga, Spain funded by SPP “Hlavicka” programme (research internship)
01/2010 – 07/2010 Aalto University School of Science and Technology, Espoo, Finland funded by Erasmus (educational internship)

Awards

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|---------|--|
| 09/2012 | Czech-Slovak Photonics Society award for the best student presentation |
| 04/2024 | Editor-in-chief of Nature Photonics award for the best student presentation on IEEE International Conference on Group IV Photonics 2014, Paris, France |
| 09/2014 | Rector award for the best publication activity, University of Zilina, Slovakia |
| 02/2015 | Award for the best student contribution in the Scientific student competition, University of Žilina, Slovak Republic |
| 03/2016 | PROGRESS 3 award for the best doctoral thesis in 2015 within Information Technology category in Slovak Republic, Czech Republic, and Poland |
| 12/2021 | Rector award for the best publication activity, University of Zilina, Slovakia |
| 11/2022 | Outstanding Reviewer award for the high-quality reviews for the IEEE journals |
| 12/2022 | Rector award for the best internal research grant, University of Zilina, Slovakia |

Students & post-docs supervisions

| No. MSc. students | No. PhD. students | No. Post-docs |
|-------------------|-------------------|---------------|
| 20 | 3 | - |

Organization of scientific meetings & conferences

| | |
|------|---|
| 2022 | General conference chair, Photonic West 2022, San Francisco, USA |
| 2023 | Topic committee member, Si Photonics conference 2023, Arlington, USA |
| 2023 | Program committee member, Optics and Optoelectronics, Prague, Czechia |
| 2023 | Program committee member, Photonic West 2023, San Francisco, USA |
| 2024 | Program committee member, Photonic West 2024, San Francisco, USA |
| 2025 | Program committee member, Photonic West 2025, San Francisco, USA |
| 2025 | Program committee member, Optics and Optoelectronics, Prague, Czechia |
| 2026 | Program committee member, Photonic West 2026, San Francisco, USA |
| 2026 | Conference co-chair, Electro 2026, Zilina, Slovakia |
| 2026 | Program committee member, European Conference on Optical Communications 2026, Malaga, Spain |

Institutional responsibilities

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|-------------------|--|
| 10/2024 – to date | Vice-dean for Science, Research, and International Relations, Faculty of Electrical Engineering and Information Technology, University of Zilina, Slovakia |
| 05/2023 – 09/2024 | Faculty Senate member, Faculty of Electrical Engineering and Information Technology, University of Zilina, Slovakia |
| 10/2020 – to date | Guarantor of the PhD., MSc., and BSc. programmes, Faculty of Electrical Engineering and Information Technology, University of Zilina, Slovakia |

Editorial and reviewing activities

| Lead journal editor | Member of editorial board of journal | No. journal reviews |
|---------------------|--------------------------------------|---------------------|
| 2 | - | > 320 |

Membership in scientific societies

| | |
|----------------|---|
| 2015 – to date | SPIE, the international society for optics and photonics, USA |
| 2014 – to date | Optica (formerly Optical Society of America), USA |
| 2021 – to date | European Optical Society, Finland |
| 2022 – to date | IEEE Photonics Society, USA |
| 2020 – to date | Czech and Slovak Photonic Society, Czech republic |

Principal investigator projects

| Project name | Funding agency |
|--------------|----------------|
|--------------|----------------|

| | |
|---|---|
| Robust surface grating couplers with high directionality between conventional optical fibers and optoelectronic integrated chips (2021 - 2022) | Grant System of University of Zilina No. 1/2021 (13842) |
| Hybrid photonisensoric systems for big data communications (2022 - 2024) | Scientific Grant Agency of the Ministry of Education, science, research and sport of the Slovak Republic and the Slovak Academy of Sciences; VEGA 1/0113/22 |
| Nano-structured silicon photonics for energy-aware data communication interconnects on a chip (2022 - 2025) | Slovak Research and Development Agency; APVV-21-0217 |
| Multiband photonic integrated library for quantum-optical systems (2024 - 2026) | EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia; 09I03-03-V04-00410 |
| Multi-purpose photonic integration platform for digital networking backbones enabled by fiber-optics and chip-level interconnects (2024 - 2026) | EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia; 09I05-03-V02-00062 |
| Laboratory of fiber and integrated optics for information and communication digital technologies (2025 - 2027) | KEGA – Cultural and Educational Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic, KEGA 008ŽU-4/2025 |
| Testing polarization effects and devices | Industry-driven project by ProFiber Networking, s.r.o |

Scientific collaborations

- 1 – National Research Council Canada, Ottawa, Canada
Development of advanced metamaterial-based photonic devices
- 2 – Dept. Electronics, Carleton University, Ottawa, Canada
Photonic integrated devices for free-space and on-chip optical communications
- 3 – Centre de Nanosciences et de Nanotechnologies, CNRS, Universite Paris-Saclay, France
Fabrication and testing of optical integrated devices
- 4 - CEA LETI, Grenoble, France
Fabrication of silicon nitride based devices
- 5 - STMicroelectronics, Crolles, France
Fabrication of silicon integrated devices
- 6 - Optoelectronic Research Centre, University of Southampton, Southampton, United Kingdom
Development and fabrication of hybrid photonic devices
- 7 - University of Malaga, Malaga, Spain
Simulation and optimization of photonic integrated devices
- 8 - Optiwave, Inc., Ottawa, Canada
Development of optical phased arrays on silicon technology
- 9 - ProFiber Networking, s.r.o, Trnava, Slovakia
Education, training and optical devices testing

Publications

| No. journal publications | | | | | No. conference publications | |
|--------------------------|----|----|----|------|-----------------------------|-------------|
| Q1 | Q2 | Q3 | Q4 | No-Q | Invited/Keynote | Contributed |
| 30 | 7 | 2 | - | 1 | 128 | 92 |