

Doc. Ing. Vítězslav Jeřábek, CSc.

Born in Prague, Czech Republic in 1951, married, 2 children

EDUCATION

2013-now Associate Professor at the Department of Microelectronics of FEE, CTU in Prague

2005-2013 Assistant Professor, Microelectronics of FEE, CTU in Prague

1987 PhD (CSc.) degree in Czech Technical University in Prague, Czech Republic

1975 Dipl.-Ing. (MSc) degree in Czech Technical University in Prague, Czech Republic

Languages: Czech, English

PROFESSIONAL EXPERIENCE

2005-2018 Head of Optoelectronics Group at the Department of Microelectronics

2005 – 1981 – had of department, Design and Construction of Optoelectronic Devices and Systems, GTS a.s. in Prague

1975 – 1981 - Independent researcher, Research Institute of Communication Technology in Prague

PROJECTS

Researcher:

International grant

- *Enhancement of silicon nanophotonic active optical waveguide and circuits with rare earth ion implantation or diffusion technology*, International grant between Czech Technical University in Prague (CTU) and National Taiwan University of Science and Technology (2024 - now)

International grant

- *Realization of silicon nanophotonic active optical waveguide and circuits with rare earth ion implantation*, International grant between Czech Technical University in Prague (CTU) and National Taiwan University of Science and Technology (TAIWAN TECH) (2022 – 2023)
- MPO-TIP grant FR-TI3/797
Research and development of technology of polymer optical wave-selective elements for informatics and sensorics (2011-2013) - evaluation as excellent with international overlap
- Development and innovation of FEL instrumentation
RP MŠMT, • Rectorate grant iFIS 475003, Č.p.: 4/7.5, program 3, (2011)
- GAČR P102/09/P104
New polymer optical integrated components for photonic applications (2009-2011)

Member of Research Team:

- TAČR Alfa Grant TA04021007
Active and Compatible Sensor Elements for Order of Magnitude Improvement of Sensitivity of Standard Raman Photometers Mainly for Environmental Use (2014-2017)

- TAČR Epsilon 2014 TH01020276
Flexible 2D and 3D Polymeric Photonic Structures (2014-2018)
- TAČR Epsilon TH03010205 MEMS ESO
MEMS Sensors with Optical Sensing (2018-2021)
- MPO-TRIO FV 30136
Highly Precise Optical Fiber Arrays with Collimators (2018-2020)
- Centre of Advanced Applied Natural Sciences
Reg. No. CZ.02.1.01/0.0/0.0/16_019/0000778 (2019-2023)

CURRENT RESEARCH INTERESTS:

- Integrated circuits for transmission and processing of wave and time multiplexing of information
- Polymer planar Bragg waveguide gratings sensors
- SERS sensors created on the principle of plasmon resonance.
- Optically active glasses and SOI nano waveguides for multiband optical amplifiers
- Silicon optical active nanostructures

Collaborations:

National Taiwan University of Science and Technology - prof. San-Liang Lee

University of Chemistry and Technology Prague – doc. Pavla Někviňová

PUBLICATIONS

57 published scientific and technical papers in WOS.

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