ĽUBOMÍR ŠKVARENINA



PERSONAL

12th June, 1989 · Partizánske Slovak nationality

CONTACT

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The Czech Academy of Sciences
Postdoctoral Researcher • Complex Photonics • Microphotonics • Institute of Scientific Instruments • Development of Imaging Methods for Multimode Fiber Endoscopes for Minimally Invasive Deep Tissue Imaging
Brno University of Technology
Research Assistant • Department of Physics • Faculty of Electrical Engineering and Communication • Identification and Analysis of Failure-Inducing Microstructural Defects in Thin-Film Chalcopyrite-Based Solar Cells
Central European Institue of Technology
Research Technician • Advanced Nano and Microtechnologies • Materials Characterization and Advanced Coatings • Samples Preparation • Setup of Laboratory Instruments • Specific Sample Characteristics Measurements • Data Analysis

PROJECTS The Czech Academy of Sciences Oct. 2020 – Present SuperPixels · Redefining Sensor Technology · Integrated Photonics Device Based on Mesh of Mach-Zehner Interferometers · Dynamic Phase and Polarization Mapping · Full Transformation of Incident Optical Field · Fiber Calibarion · Particle Tracking Jan. 2018 – Dec. 2019 SIX Research Centre · Automated System for Removing Unwanted Metal Particles Jan. 2014 – Dec. 2018 Internal Grant Agency · Innovative Methods for Diagnostics of Optical and Electrical Properties of Organic and Inorganic Materials and Structures · Development of Advanced Methods for Diagnostics of Electrotechnical Materials and Components

EDUCATION

	Brno University of Technology
Sept. 2014 — July 2021	 Doctor's degree • Physical Electronics and Nanotechnology • Electrical Engineering and Communication • Doctoral Dissertation: Thin-film Solar Cells Characterization and Microstructure Defect Analysis
	Brno University of Technology
Sept. 2012 — June 2014	 Master's degree · Communications and Informatics · Electrical, Electronic, Communication and Control Technology · Master Thesis: Signal Interpolation Using NURBS Curves
	Brno University of Technology
Sept. 2008 — Aug. 2012	 Bachelor's degree · Teleinformatics · Electrical, Electronic, Communication and Control Technology · Bachelor Thesis: Image Dithering Methods
	Secondary School • Piešťany
Sept. 2004 — June 2008	Technical School · Electrical Engineering · Information and Telecommunication Systems

SOCIAL

 $\textbf{R^G} \cdot \text{researchgate.net/profile/Lubomir-Skvarenina}$

ENGINEER

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IDENTIFIERS

 $\begin{array}{l} \textbf{ORCID iD} \cdot 0000\text{-}0002\text{-}9203\text{-}0359\\ \textbf{ResearcherID} \cdot \text{AAC}\text{-}8505\text{-}2019 \end{array}$

OFFICE

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Brno University of Technology
Student EEICT • 24 th Student Conference • 1 st Place in Theoretical Electrical Engineering, Physics and Mathematics • Research Paper: Dark J–V Characteristics Model of Chalcopyrite-Based Solar Cells
Gdansk University of Technology
IOP Publishing · 39 th International Microelectronics and Packaging IMAPS Poland Conference · Journal of Physics: Conference Series Prize · Research Paper: Noise and Optical Spectroscopy of Single Junction Silicon Solar Cell
Regional Committee · Trnava
Student's Professional Activities • 30 th Regional Competition • Microprocessor, Computing and Telecommunication Technology • Designed Product: Universal Interface for Windows via Serial Port

COURSES

 Sept. 2012 – Dec. 2012
 Theory of Communication • Optical Networks • Information and Communication

 Technologies Courses • Department of Telecommunications

 Brno University of Technology

 Sept. 2011 – Dec. 2011

 CISCO Networking Academy • Cisco Cerfitied Network Associate • Routing and Switching • Department of Telecommunications

WORKSHOP

12th – 17th June 2018

Nanometer Structures Division

Physics at Nanoscale • 16th IUVSTA International Summer School • Nanostructures, Surface and Thin Films • Nano-Optics and Photonics • Nanostructured Solar Cells • Nanoelectronics and Spintronics • Chemistry and Life Science Applications

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LANGUAGES

Slovak · Native Czech · Fluent English · Intermediate German · Beginner

INTERESTS

3D Modeling · 3D Printing Graphic Design · Animation Indoor Rowing · Pilates Mountain Biking · Running

EXPERTISE

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Thin-Film Chalcopyrite-Based Solar Cells · Microscopy Analysis (SEM | FIB | EDX) · Digital Signal and Image Processing · Transport Characteristics Modeling · Spectrally-Filtered Electroluminescence and Lock-in IR Thermography Imaging · Low Frequency Noise Diagnostics · Metallographic Specimen Preparation

SKILLS

MATLAB · Advanced AutoCAD · Advanced LabView · Intermediate LaTeX · Intermediate

REFEREES

Stephen Simpson Scientist t: +420 541 514 132 e: simpson@isibrno.cz

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Robert Macků Assistant Professor t: +420 541 146 005

e: macku@vut.cz

WEB

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BUT · vutbr.cz/en/people/lubomir-skvarenina-115286

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