PhD Advisor form

Name of the advisor: Robert Bogdanowicz

Academic title: Ph.D., D.Sc., Eng., Assotiate professor

Orcid ID number: orcid.org/0000-0002-7543-2620

Department of Metrology & Optoelectronics

Faculty of Electronics, Telecommunication and Informatics

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Discipline[i] **control, electronic and electrial engineering; materials engineering**

Bibliometric indicators

1.	Number of journal publications in WoS/ Scopus	96 / 106
2.	Citations (WoS/Scopus) excluding self-citations	466 / 506
3.	Hirsch index (WoS/Scopus)	17 / 18
4.	Hirsch index in Google Scholar	20
5.	Citarions in Google Scholar	1220

1. The number of PhD students who have graduated under your supervision: 1
2. The number of PhD students currently supervised: 5
3. Are you currently accepting new PhD students:
   a. Polish Yes
   b. Foreign Yes

Research interests or topics offered for PhD research (no more than 2000 characters)[ii]

- Synthesis of novel materials and components in the PVD and CVD processes.
- Plasma synthesis techniques of semiconductor materials.
- The diamond structures for the purpose sensor technology in liquid environments.
- The structuring of the diamond for electronics.
- NV centres in diamond for photonic devices.
- The conductive composite based on nanodiamond.
- The optical measurements of thin films (spectroscopic ellipsometry).
- Diagnostics of electrical parameters of thin layers.
- New 2D semiconductor – phosphorene

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Funding or special equipment needed to carry out a PhD project[iii]:

1. Is funding available for experimental work: Yes
2. Is the equipment needed to complete a PhD project available in your lab/department: Yes

Most recent publications in WoS/SCOPUS journal – no more than 5 published after 1.01.2017

No	Authors/title/journal	Journal IF/Quartile – for WoS and SNIP/ CiteScore for SOPUS	Publication year
1.	Bogdanowicz, Robert, et al. "Growth and Isolation of Large Area Boron-Doped Nanocrystalline Diamond Sheets: A Route toward Diamond	Advanced Functional Materials (IF= 13.325) /	2018
2.	Hosu, I. S., et al. "Carbon nanowalls: a new versatile graphene based interface for the laser desorption/ionization-mass spectrome	Nanoscale (IF= 7.233) / (CiteScore= 7.57)	2017
3.	Nidzworski, Dawid, et al. "A rapid-response ultrasensitive biosensor for influenza virus detection using antibody modified boron-d	Scientific Reports (IF=4.122) / (CiteScore=4.36)	2017
4.	Fudala-Ksiazek, S., et al. "Influence of the boron doping level on the electrochemical oxidation of raw landfill leachates: Advanc	Chemical Engineering Journal (IF=6.735) / (CiteScore=7.01)	2018
5.	Siuzdak, Katarzyna, et al. "Boron-enhanced growth of micron-scale carbon-based nanowalls: a route toward high rates of electrochem	ACS applied materials & interfaces (IF=8.097) / (CiteScore=8.15)	2017

Most recent externally funded projects you were involved in – no more than 3

No	Project title, the name of the Princ. Investigqtor (PI) and the institution the project was carried out	Year awarded	Role in the project
1.	DIAMSEC - ultrasensitive sensing platform for rapid detection of epidemiological and pandemic threats", The National centre for Research and Development, TECHMATSTRATEG	2017	PI
2.	2D phosphorene nanostructures - synthesis and analysis of opto-electrochemical properties toward biosensing systems", National Science Centre, SONATA-BIS	2017	PI
3.	Novel photonic and quantum devices exploiting nonlinear and coherence phenomena in color centers in diamond", National Science Centre, OPUS	2017	co-PI

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Additional relevant information – (no more than 1600 characters)[iv]

Robert Bogdanowicz received his Ph.D. degree with honours in Electronics from the Gdansk University of Technology. He worked as a post-doc researcher in Ernst-Moritz-Arndt-Universität Greifswald Institut für Physik. He has initiated optical emission imaging of muti-magnetron pulsed plasma and contributed to the development of antibacterial implant coatings deposited by high-power impulse magnetron sputtering. He moved back to the Gdansk University of Technology in 2011, as an assistant professor in the Department of Metrology and Optoelectronics. His current domains of interest include selective CVD diamond growth and nanocrystalline diamond doping for environmental and biochemical nanosensors. In 2015 he held a scholarship Fulbright Senior Scholar Program at the California Institute of Technology (Caltech) in the group of prof. William Goddard (Materials and Process Simulation Center) working on hybrid 3D diamond structures.
He has served on several journal editorial boards, and currently serves as an Associate Editor for 2 JCR journals, and reviewer for over 30 journals and granting agencies. His works were recognized and featured on the 2 covers in JCR journals (e.g. Energy Technology in 2018). He obtained 4 patents and his sensing technology based on diamond surface is already developed in industry.

[i] You may select up to two disciplines out of 12 disciplines represented in the Doctoral School
[ii] Observe the limit of not more than 300 words
[iii] Leave only one answer
[iv] Add any other relevant information eg. awards for PHD students whom you supervised (no more than 200 words)