

Name of the advisor: Janusz Smulko

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Disciplineⁱ control, electronic and electrical engineering

Bibliometric indicators

1.	Number of journal publications in WoS/ Scopus	94/103
2.	Citations (WoS/Scopus) excluding self-citations	560/670
3.	Hirsch index (WoS/Scopus)	19/20
4.	Hirsch index in Google Scholar	22
5.	Citations in Google Scholar	1300

1. The number of PhD students who have graduated under your supervision: 5

2. The number of PhD students currently supervised: 3

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

Measurements issues in general, precise measurements especially. Random signals analysis, noise measurements and analysis, signal processing and signal processors - methods of reducing computational complexity. Gas sensing by resistive gas sensors (MOS sensors) and optical sensors, algorithms of detection and prediction, Raman spectroscopy, SERS effect, other microscopic and spectroscopic methods. Electronic devices and materials reliability assessment. Secure communication using thermal noise. Internet of Things and security problems.

PhD Advisor form

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 SCOPUS	Publication year
1.	Babicz, S., Zieliński, A., Smulko, J., & Darowicki, K. (2017). Corrosion process monitoring by AFM higher harmonic imaging. <i>Measurement Science and Technology</i> , 28(11), 114001.	1.685/Q2 1.81/1.061	2017
2.	Smulko, J. (2019). Methods of trend removal in electrochemical noise data—overview. <i>Measurement</i> , 131, 569-581.	2.218/Q2 2.62/1.566	2019
3.	Saidi, T., Palmowski, D., Babicz-Kiewlicz, S., Welearegay, T. G., El Bari, N., Ionescu, R., ... & Bouchikhi, B. (2018). Exhaled breath gas sensing using pristine and functionalized WO ₃ nanowire sensors enhanced by UV-light irradiation. <i>Sensors and Actuators B: Chemical</i> , 273, 1719-1729.	5.667/Q1 5.67/1.453	2018
4.	Lentka, E., Smulko, J., Kotarski, M., Granqvist, C. G., & Ionescu, R. (2017). Non-Gaussian resistance fluctuations in gold-nanoparticle-based gas sensors: An appraisal of different evaluation techniques. <i>Sensors</i> , 17(4), 757.	2.475/Q2 3.23/1.550	2017
5.	Cindemir, U., Trawka, M., Smulko, J., Granqvist, C. G., Österlund, L., & Niklasson, G. A. (2017). Fluctuation-enhanced and conductometric gas sensing with nanocrystalline NiO thin films: A comparison. <i>Sensors and Actuators B: Chemical</i> , 242, 132-139.	5.667/Q1 5.67/1.453	2017

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

No	Project title, the name of the Princ. Investigator (PI) and the institution the project was carried out	Year awarded	Role in the project
1.	OSF 274237 National Science Center, Poland “Charging/discharging mechanism at the electrode/electrolyte interface of supercapacitors”. PI: Janusz Smulko. Gdańsk University of Technology.	2015	PI
2.	H2020-MSCA-RISE-2014 “Development of a non-invasive breath test for early diagnosis of tropical diseases”. PI: Janusz Smulko. Gdańsk University of Technology.	2015	PI

PhD Advisor form

3.	HARMONIA 3 2012/06/M/ST7/00444 National Science Center, Poland “Detection of gases by means of nanotechnological resistance sensors”. PI: Janusz Smulko. Gdańsk University of Technology.	2013	PI
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Additional relevant information – (no more than 1600 characters)^{iv}

Total funds of the research projects exceeded 1.2 mln USD. More than 100 papers were published in Journals and Conference Proceedings (two review papers and 15 invited talks), two books for academic students, one USA patent, seven patents or patent disclosures in Poland and Europe. All my supervised PhD students have defended their thesis summa cum laude. I have established cooperation with Uppsala University, Johns Hopkins University, Texas A&M University. Google scholar: <https://scholar.google.com/citations?user=zWo1gWUAAAAJ&hl=en&authuser=1>

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)