

**Name of the advisor:** Piotrowski Robert

**Academic title:** Ph.D., D.Sc., Eng.

Orcid ID number: 0000-0002-8660-300X

**Department of** Electrical Engineering, Control Systems and Informatics

**Faculty of** Electrical and Control Engineering

**Gdańsk University of Technology**

**Phone:** 58 347 20 67

**E-mail:** robert.piotrowski@pg.edu.pl

**Personal web page:** <https://eia.pg.edu.pl/robert-piotrowski>

**Discipline<sup>i</sup>** Control, electronic and electrical engineering

**Bibliometric indicators**

1.	Number of journal publications in WoS/ Scopus	17/26
2.	Citations (WoS/Scopus) excluding self-citations	114/128
3.	Hirsch index (WoS/Scopus)	8/8
4.	Hirsch index in Google Scholar	12
5.	Citarions in Google Scholar	444

1. The number of PhD students who have graduated under your supervision: 0

2. The number of PhD students currently supervised: 0

3. Are you currently accepting new PhD students:

- a. Polish Yes
- b. Foreign No

**Research interests or topics offered for PhD research (no more than 2000 characters)<sup>ii</sup>**

Topics:

1. Multi-criteria optimisation of biological processes in a wastewater treatment plant of the batch type.
2. Multiple reactor management system in a wastewater treatment plant of the batch type.
3. Design of observers for control and optimization of biological processes in a wastewater treatment plant of the batch type.
4. Use of fractional calculus in modelling and control of a biological wastewater treatment plant of the batch type.

Requirements:

1. Knowledge of control and optimization.
2. Expert knowledge of the Matlab environment.
3. Preference will be given to candidates who have completed their studies in Automation and Robotics.

PhD Advisor form

**Funding or special equipment needed to carry out a PhD project <sup>iii</sup>:**

1. Is funding available for experimental work: No
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.	Piotrowski R., Lewandowski M., Paul A. (2019). Mixed integer nonlinear optimization of biological processes in wastewater sequencing batch reactor. Journal of Process Control - in review.	2,787	2019
2.	Piotrowski R. (2018). Advanced control and optimization algorithms in biological wastewater treatment plant of the batch type. Monographs 169, Gdańsk University of Technology Publishing House, 161 pages (in Polish).		2018
3.	Piotrowski R., Hirsch P., Lorenc J. (2018). Comparison of Algorithms for Hybrid Nonlinear Optimization Problem in Biological Wastewater Treatment Plant. Proc. of the 8th International Interdisciplinary PhD Workshop – I2PhDW 2018, May 9-12, 2018, Gwinousserie, Poland.		2018
4.	Zubowicz T., Duzinkiewicz K., Piotrowski R. (2017). Takagi-Sugeno Fuzzy Model of Dissolved Oxygen Concentration Dynamics in a Bioreactor at WWTP. Proc. of the 22nd International Conference on Methods and Models in Automation and Robotics – MMAR 2017, August 28-31, 2017, Międzyzdroje, Poland		2017
5.			

**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.	Development of a method and execution of an exemplary system analysis of the operation of a nuclear unit with a water reactor at partial cogeneration	2012	R
2.			Wybierz element.

PhD Advisor form

3.			Wybierz element.
----	--	--	------------------

**Additional relevant information – (no more than 1600 characters)<sup>iv</sup>**

Detailed information can be obtained at the meeting, room 110.

---

<sup>i</sup> You may select up to two disciplines out of 12 disciplines represented in the Doctoral School

<sup>ii</sup> Observe the limit of not more than 300 words

<sup>iii</sup> Leave only one answer

<sup>iv</sup> Add any other relevant information eg. awards for PHD students whom you supervised (no more than 200 words)