

**Name of the advisor: Marek Blok**

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

Orcid ID number: <https://orcid.org/0000-0002-8793-1697>

**Department of Teleinformation Networks**

**Faculty of Electronics, Telecommunications and Informatics**

**Gdańsk University of Technology**

**Phone: (58) 347 27 79**

**E-mail: marek.blok@pg.edu.pl**

**Personal web page: www.pg.edu.pl/marblok**

**Discipline<sup>i</sup> technical informatics and telecommunications**

**Bibliometric indicators**

1.	Number of journal publications in WoS/ Scopus	15/21
2.	Citations (WoS/Scopus) excluding self-citations	14/22
3.	Hirsch index (WoS/Scopus)	2/4
4.	Hirsch index in Google Scholar	7
5.	Citations in Google Scholar	173

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

2. The number of PhD students currently supervised: 2

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)<sup>ii</sup>**

My research interests are mostly related to digital processing of telecommunications signals, in particular multirate signal processing and design of digital filters used in the implementation of processing of telecommunication signal. My current main research interests and topics are:

- Design and applications of fractional delay filters with tunable bandwidth. Tunable bandwidth requirement requires that the fractional delay filters are related to the offset window filter design method. Currently I focus mainly on variable fractional delay filters defined in the discrete frequency domain that fulfill this assumption.
- Reduction of computational complexity of digital signal processing algorithms based on multirate structures. For example implementation of sampling rate conversion based on a resampling filter implemented with the frequency response masking techniques.
- Digital modulators and demodulators with main focus on noise communications and quaternion based signal processing.

PhD Advisor form

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

1. Is funding available for experimental work: Not applicable
2. Is the equipment needed to complete a PhD project available in your lab/department: Not applicable

**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.	Blok, Marek; Kaczmarek, Sylwester; Narloch, Marcin; et al. / The central server of the Border Guard's distributed multimedia system for monitoring and visualisation of ongoing and archival events / JOURNAL OF MARINE ENGINEERING AND TECHNOLOGY Volume: 16 Issue: 4 Pages: 257-272	0.31 / Q4 / 0.56	2017
2.	Blok, M.; Czaplewski, B.; Kaczmarek, S.; et al. / Streaming Real-time Data in Distributed Dispatcher and Teleinformation Systems for Visualization of Multimedia Data of the Border Guard / TRANSNV-INT. JOUR. ON MARINE NAV. AND SAFETY OF SEA TRANSP., Vol. 12 (2), pp. 217-229		2018
3.	Blok, Marek / Sample Rate Conversion Based on Frequency Response Masking Filter / 2018 International Conference on Signals and Electronic Systems, ICSES 2018 - Proceedings, 24 October 2018, Article number 8507320, Pages 137-142		2018
4.			
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.	Streaming real-time data transmission in the Border Guard's distributed dispatch and communication systems, Sylwester Kaczmarek, Narodowe Centrum Badań i Rozwoju, DOB-BIO6/10/62/2014	2014	R
2.	The system of high-speed multimedia data transmission for the needs of the protection of the maritime state border, Stefański Jacek, Narodowe Centrum Badań i Rozwoju, DOBR-BIO6/09/5/2014	2014	R

PhD Advisor form

3.	The concept and implementation of information integration in the distributed elements of the Border Guard data exchange system, Sylwester Kaczmarek, Narodowe Centrum Badań i Rozwoju, DOBR/0022/R/ID1/2013/03	2013	R
----	--	------	---

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

(Please fill in here)

---

<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)