

Prospective supervisor's form

Name of the supervisor: Waldemar Jendernalik

Academic title: Ph.D.

Orcid ID number: <https://orcid.org/0000-0002-5476-348X>

Gdańsk University of Technology Faculty of Electronics, Telecommunications and Informatics

Department of Microelectronic Systems

Phone: +48 583471864

E-mail: waldemar.jendernalik@pg.edu.pl

Personal web page: <https://pg.edu.pl/waldemar.jendernalik>

Discipline: control, electronic and electrical engineering none Optional

Key words (obligatory four key words describing research interests / expertise):

CMOS integrated circuits

CMOS image sensors

Low-power circuits

Full-custom circuits design

Bibliometric indicators

1. Number of journal publications in WoS/ Scopus 18/20

2. Citations excluding self-citations WoS 58 Scopus 59

3. Hirsch index WoS 5 Scopus 6

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

2. The number of PhD students currently supervised:

a. within the current doctoral school 0

b. within doctoral studies (previous system) 0

3. Are you currently accepting new PhD students:

a. Polish Yes/No Yes

b. Foreign Yes/No No

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

- Microelectronic very-large-scale-integrated (VLSI) circuits design; full-custom design;
- Special image sensors for machine vision; image sensors with embedded high-speed and real-time image processing;
- Atypical circuits design; low-power and low-voltage circuits design;
- Processors specialized for image sensors; analog and mixed-signal processors;
- Massively parallel processing of vision signal;
- Analogue circuits design;

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

1. Is funding available for experimental work: *Yes/No/not needed*

Yes

2. Is the equipment needed to complete a PhD project

available in your lab/department: *Yes/No/not needed*

Yes

Most important publications – no more than 5 published after 1.01.2018

| No | Authors/title/journal | Number of points according to the current list of the Ministry of Science and Higher Education | Publication year |
|----|---|--|------------------|
| 1. | G. Blakiewicz, M. Kłosowski, W. Jendernalik, J. Jakusz, S. Szczepański/Low-Power Receivers for Wireless Capacitive Coupling Transmission in 3-D-Integrated Massively Parallel CMOS Imager/IEEE Transactions on Circuits and Systems I: Regular Papers | 140 | 2020 |
| 2. | G. Blakiewicz, J. Jakusz, M. Kłosowski, W. Jendernalik, S. Szczepański/Light-Powered Starter for Micro-Power Boost Converter for CMOS Image Sensors/Circuits, Systems, and Signal Processing | 70 | 2020 |

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|----|--|--|--|
| 3. | | | |
| 4. | | | |
| 5. | | | |

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

| No | Project title, the name of the Principal Investigator (PI) and the institution the project was carried out | Years | Role in the project ^{iv} |
|----|---|-----------|-----------------------------------|
| 1. | CMOS sensor with smart grid of pixels of layered structure for fast acquisition and simultaneous extraction of information from image, prof. Stanisław Szczepański, Gdańsk University of Technology | 2017-2020 | R |
| 2. | Microelectronic CMOS vision system for capsule endoscopy with wireless data and power transmission, prof. Stanisław Szczepański, Gdańsk University of Technology | 2012-2015 | R |
| 3. | Design and CMOS implementation of a specialized analogue processor to support real-time image processing, prof. Stanisław Szczepański, Gdańsk University of Technology | 2009-2011 | R |

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Additional relevant information – (no more than 1600 characters)^v



- 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 2000 characters
- ⁱⁱⁱ Leave only one answer
- ^{iv} Select the role in the project: PI stands for principal investigator (refers to the holder of an independent grant and the lead researcher for the grant project), Co-I for co-investigator (Co-I assists the principal investigator in the management and leadership of the research project), R for researcher
- ^v Add any other relevant information e.g. awards for PhD students whom you supervised (no more than 1600 characters)