

Prospective supervisor's form

Name of the supervisor: Wojciech Litwin

Academic title:

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Faculty of Ocean Engineering and Ship Technology

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Discipline: mechanical engineering [IMe] environmental engineering, mining and po

Optional

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

tribology

green shipping

hybrid ship propulsion

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Bibliometric indicators

1. Number of journal publications in WoS/ Scopus 31/33

2. Citations excluding self-citations WoS 193 Scopus 276

3. Hirsch index WoS 9 Scopus 10

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 sys) 0

3. Are you currently accepting new PhD students:

a. Polish Yes/No Yes

b. Foreign Yes/No Yes

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

Tribology - mainly main shaft sliding bearings lubricated by bio liquids like water, bio oils etc. (tribology, green tribology, water lubricated bearings).
Ships hybrid propulsion, energy efficiency (hybrid propulsion, green shipping, energy efficiency)

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

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

No

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. | Barszczewska A., Piątkowska E., Litwin W.: Selected Problems of Experimental Testing Marine Stern Tube Bearings// Polish Maritime Research. -Vol. 26, iss. 2 (2019), s.142-154 | 70 | 2019 |
| 2. | Kunicka M., Litwin W.: ENERGY EFFICIENT SMALL INLAND PASSENGER SHUTTLE FERRY WITH HYBRID PROPULSION - CONCEPT DESIGN, CALCULATIONS AND MODEL TESTS// Polish Maritime Research. -Vol. 26, iss. 2(102) (2019), s.85-92 | 70 | 2019 |

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|----|---|-----|------|
| 3. | Litwin W.: Marine propeller shaft bearings under low-speed conditions: water vs. oil lubrication// TRIBOLOGY TRANSACTIONS. -Vol. 62, iss. 5 (2019), s.839-849 | 100 | 2019 |
| 4. | Litwin W., Leśniewski W., Piątek D., Niklas K.: Experimental Research on the Energy Efficiency of a Parallel Hybrid Drive for an Inland Ship// ENERGIES. -Vol. 12, iss. 9 (2019), s.1-16 | 140 | 2019 |
| 5. | Litwin W.: Experimental research on marine oil-lubricated stern tube bearing// PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART J-JOURNAL OF ENGINEERING TRIBOLOGY. -Vol. 233, iss. 11 (2019), s.1-9 | 70 | 2019 |

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. | Research on water lubricated sliding couples in conditions of improper lubrication conditions, National Science Centre | 2017-2020 | PI |
| 2. | Intelligent ship propulsion system - SMART PS- Martec II program | 2016-2018 | R |
| 3. | Green inland ferry for Gdansk, grant financed by Voivodship Fund for Environmental Protection and Water Management | 2015-2016 | 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)