



**A list of potential PhD supervisors and research topics  
for candidates to the Doctoral School of the Koszalin University of Technology  
in the academic year 2021/2022**

The names of PhD supervisors are linked - upon clicking, a research topic application form will open. It contains contact details to a supervisor and a short description of a research topic.

Supervisors can submit their research topics on an ongoing basis. The application form is available on the website [szkoladoktorska.tu.koszalin.pl](http://szkoladoktorska.tu.koszalin.pl)

<b>PhD supervisor</b>	<b>Submitted research topics</b>
Automation, electronic and electrical engineering	
<a href="#">dr hab. inż. Stanisław Duer, prof. PK</a>	Intelligent system for supervision and safety of use of wind farm equipment
<a href="#">dr hab. inż. Stanisław Duer, prof. PK</a>	Diagnostics in multi-valued state assessments of complex technical objects
Mechanical engineering	
<a href="#">prof. dr hab. inż. Krzysztof Nadolny</a>	Investigations into the influence of pro-ecological methods of delivery cooling, lubricating and antiadhesive media to the machining zone on the course and results of the grinding process
<a href="#">prof. dr hab. inż. Tadeusz Bohdal</a>	The study of phase transformations of working refrigerants in elements of cogeneration miniinstallation for the needs of scattered power industry
<a href="#">prof. dr hab. inż. Witold Gulbiński</a>	Plasma-based surface treatment of metals and alloys
<a href="#">dr hab. inż. Dariusz Lipiński, prof. PK</a>	Research on the development of systems for modeling, monitoring and optimization of abrasive machining processes under the conditions of Industry 4.0



<a href="#">dr hab. inż. Krzysztof Dutkowski, prof. PK</a>	Examination of the applicability of a liquid containing additives in the form of microcapsules in heat exchange systems
<a href="#">prof. dr hab. inż. Waldemar Kuczyński</a>	The study of energy and exergy evaluation of the operation of machines and technical devices in the field of renewable energy
<a href="#">prof. dr hab. inż. Waldemar Kuczyński</a>	The investigation of the pinch-point phenomenon during phase change of pro-ecological refrigerants in minichannels
<a href="#">dr hab. inż. Tomasz Rydzkowski, prof. PK</a>	Research on the processing of classic and biodegradable polymers and composites. The topics include recycling, they may also apply to expandable plastics such as EPS polystyrene and composites based on it
<a href="#">dr hab. inż. Tomasz Rydzkowski, prof. PK</a>	The research on the production and properties of classic and biodegradable packaging films. The subject may concern monolithic and multilayer, modified and shrinkable films
Civil engineering and transport	
<a href="#">dr hab. inż. Jacek Domski, prof. PK</a>	Analysis of the possibilities of using various building materials in engineering structures
<a href="#">dr hab. inż. Mirosław Wesołowski, prof. PK</a>	Optimization and design of sandwich composite structures