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 2024/2025

Click on a topic to open a research topic description sheet.

Click on a supervisor's name to check the details.

ATENTION!

Supervisors can submit their research topics on an ongoing basis.

An application form is available on *szkoladoktorska.tu.koszalin.pl*, in section "Rekrutacja/Promotorzy i tematyka/Karty zgłoszenia tematyki badawczej"

PhD supervisor	Submitted research topics
Mechanical engineering	
dr hab. inż. Krzysztof Dutkowski, prof. PK	Study on efficiency of heat transfer devices with PCM fluids addition
prof. dr hab. inż. Witold Gulbiński	New coatings improving tribological properties and corrosion resistance of metal alloys for medical applications
prof. dr hab. inż. Witold Gulbiński	Surface modification of electrodes for green hydrogen generation by electrolytic water splitting
prof. dr hab. inż. Waldemar Kuczyński	Study of the phenomenon of condensation of pro-environmental refrigerant mixtures in compact heat exchangers fabricated by 3D printing from metal powders
prof. dr hab. inż. Waldemar Kuczyński	Study of the phenomenon of temperature slippage (pinch-point) during phase transformations of pro-ecological refrigerants in mini-channels
prof. dr hab. inż. Krzysztof Nadolny	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
dr hab. inż. Mieczysław Pancielejko, prof. PK	Testing the mechanical and tribological properties of the surfaces of tools, machine parts and biomaterials made of stainless steel with coatings deposited by PVD techniques

dr hab. inż. Tomasz Rydzkowski, prof. PK	Processing and testing of properties of classical and biodegradable polymeric materials as well as composites. The subject matter covers processing and recycling and may also include foamed materials such as expanded polystyrene (EPS) and composites based on it
dr hab. inż. Tomasz Rydzkowski, prof. PK	Research on the production, properties, welding, and recycling of both conventional and biodegradable packaging films. The scope may include monolithic and multilayer films, modified films, as well as shrink films
Civil engineering, geodesy and transport	
dr hab. inż. Jacek Domski, prof. PK	Application of cement composites based on various materials in structural building elements
dr hab. inż. Marcin Jagoda, prof. PK dr hab. inż. Krystyna Kurowska, prof. UWM	Analyze the process of land deforestation and land conversion, and forecast changes in land use for other purposes
dr hab. inż. Mirosław Wesołowski, prof. PK	Constitutive material model of composite structures produced by the additive manufacturing
Political science and public administration	
dr hab. Marek Górka, prof. PK	Political competition in the Polish political system: conditions, process and political consequences
dr hab. Marek Górka, prof. PK	Security policy and cybersecurity of a modern state