

Faculty of Computer Science and Management W8

List of prospective PhD thesis supervisors

Field of *Technical Sciences*, **Discipline Computer Science**

Choroś Kazimierz, dr hab. inż., prof. nadzw. PWr kazimierz.choros@pwr.edu.pl

- digital image and video processing
- content-based video indexing
- computer animations
- information indexing and retrieval on the Internet
- analysis of Web systems

Huzar Zbigniew, prof. dr hab. inż. zbigniew.huzar@pwr.edu.pl

- Software engineering
- Real-time systems
- Formal specification and design methods

Józefczyk Jerzy, prof. dr hab. inż. jerzy.jozefczyk@pwr.edu.pl

- Optimal decision making for complex and uncertain systems
- Decision support systems and their technological applications

Jóźwiak Ireneusz, dr hab. inż., prof. nadzw. PWr ireneusz.jozwiak@pwr.edu.pl

- Reliability and safety of systems and computer networks and software
- Software engineering
- Probabilistic in engineering applications

Kazienko Przemysław, prof. dr hab. inż. przemyslaw.kazienko@pwr.edu.pl

- data science and data mining
- machine learning, including relational machine learning
- prediction and classification, especially for networked data
- social network analysis
- social media analytics
- information spreading and diffusion
- promising scientific topic identification and prediction
- efficiency of scientific grants
- possibility of cooperation at research grants, current list: http://www.zsi.pwr.wroc.pl/~kazienko/eng_projects.htm; cooperation with international research centres and industrial partners

Kołaczek Grzegorz, dr hab. inż. grzegorz.kolaczek@pwr.edu.pl

- Security of applications, systems and IT networks
- Analysis of network traffic
- Analysis of data sets to detect security incidents and anomalies
- Forensic analysis
- Detecting and responding to security incidents
- Modeling and analysis of trust
- Detection and prevention of fraud
- Privacy and anonymity of users of ICT systems
- Use of blockchain solutions for improving IT security.

Król Dariusz, dr hab. inż. dariusz.krol@pwr.edu.pl

- Knowledge Propagation and Evaluation
- Cooperation, Collaboration and Integration
- Multi-Agent Systems and Grid Computing
- Computational Intelligence
- Adaptive and Self-Organising Systems
- Data quality, detecting anomalies, inconsistency

Kwaśnicka Halina, prof. dr hab. inż., prof. zw. PWr halina.kwasnicka@pwr.edu.pl

- Artificial Intelligence - theory and applications, including acquiring knowledge from various data types
- Machine Learning - the development of methods for their practical application, e.g., the system of understanding the sign language of deaf people, the system of "guarding" the safety of the lonely and elderly people, etc.
- Machine Learning - a hierarchy of groups of object generation (e.g., for grouping text documents and or images)
- Clustering in subspaces - theory and practical use
- Use ontology, generation of object group hierarchies, etc., for automatic interpretation of images
- Evolutionary algorithms, hybrid intelligent systems, for solving practical problems

Madeyski Lech, dr hab. inż., prof. nadzw. PWr lech.madeyski@pwr.edu.pl

- Data science in software engineering, e.g., software defect prediction, user story/project effort prediction using deep learning (e.g., Keras, TensorFlow),
- New methods, practices and tools in software engineering (incl. Test-Driven Development) and their empirical evaluation via case studies, experiments etc. using statistical (meta-) analyses with R,
- Software quality and software tests quality (mutation testing),
- Software process and product improvement,
- Reproducibility and credibility of empirical research in software engineering.

Markowska-Kaczmar Urszula, dr hab.inż, prof. nadzw. PWr urszula.markowska-kaczmar@pwr.edu.pl

- Deep learning and its application
- Machine learning
- Computational intelligence
- Nature inspired methods and their applications
- Hybrid systems

Nguyen Ngoc Thanh, prof. dr hab. inż., prof. zw. PWr Ngoc-Thanh.Nguyen@pwr.edu.pl

- collective intelligence
- knowledge engineering
- knowledge management systems
- multi-agent systems
- ontology engineering

Sobecki Janusz, dr hab. inż., prof. nadzw. PWr janusz.sobecki@pwr.edu.pl

- Human-Computer Interaction
- Usability and User Experience
- Eye tracking
- Augmented Reality
- Embedded Systems

Świątek Jerzy, prof. dr hab. inż. jerzy.swiatek@pwr.edu.pl

- Modelling and identification of complex systems and decision support systems, in particular:
 - modelling and identification of biological plants

- two-stage identification and its applications
- identification of network systems, including complex of operations systems
- application of neural network in modelling and identification of complex systems
- decision support systems using the methods of artificial intelligence, including methods of modelling and recognition
- machine learning methods

Field of *Economic Sciences*, **Discipline *Management Sciences***

Bieńkowska Agnieszka, dr hab. inż. agnieszka.bienkowska@pwr.edu.pl

- Controlling
- Human Resource Management
- Quality of education in the university

Chodak Grzegorz, dr hab. inż, prof. nadzw. PWr grzegorz.chodak@pwr.edu.pl

- e-Commerce
- Social Media
- Logistics management in online shops

Kuchta Dorota, prof.dr hab. inż., prof. zw. PWr dorota.kuchta@pwr.edu.pl

- project management
- decision making in the conditions of uncertainty
- fuzzy optimisation
- managerial accounting

Malara Zbigniew, prof. dr hab. inż. zbigniew.malara@pwr.edu.pl

- organization and institution management system
- knowledge and information management
- behavior management in the organization
- market behavior of organizations and institutions

Michalski Rafał, dr hab. inż. rafal.michalski@pwr.edu.pl

- Human-Computer Interaction, HCI
- Eye tracking i face reading
- Marketing: e-Biznes, digital signage

Mielczarek Bożena, dr hab. inż. bozena.mielczarek@pwr.edu.pl

- Simulation modeling
- Decision support in healthcare management
- Financial risk analysis

Ramsey David, dr hab., prof. nadzw. PWr david.ramsey@pwr.edu.pl

- The modelling and analysis of socio-economic processes using game theory and agent models
- Researching into the nature of social capital
- Decision processes with one or many decision makers

Weron Rafał, prof. dr hab., prof. zw. PWr rafal.weron@pwr.edu.pl

- Risk management and forecasting for the energy industry
- Computational statistics with applications to finance and insurance
- Agent-based modeling and computational economics
- Derivatives pricing and financial engineering