

**Candidate supervisor's information summary form**  
maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title: <b>Jaroslav Kurek</b> , D.Sc.Eng., Prof. SGGW (Warsaw Uni. Life Sc.)	
Discipline/ disciplines of science	Information and communication technology
Professional development (degrees and titles) in chronological order	<p><b>M.Sc.</b> – computer science (Warsaw University of Technology) - <b>2004</b></p> <p><b>Ph.D.</b> – Electrotechnics (Warsaw University of Technology) - <b>2008</b></p> <p><b>D.Sc.</b> - Information and communication technology, specialization: artificial intelligence (The West Pomeranian University of Technology in Szczecin) - <b>2019</b></p>
Most important publications/patens over the last 3 years (maximum 10)	<ol style="list-style-type: none"> <li>1. Świdorski Bartosz, Osowski Stanislaw, Gwardys Grzegorz [i in.]: Random CNN structure: tool to increase generalization ability in deep learning, Eurasip Journal on Image and Video Processing, 2022, vol. 2022, nr 1, s.3—</li> <li>2. Bukowski Michał, Kurek Jaroslav, Antoniuk Izabella [i in.]: Decision Confidence Assessment in Multi-Class Classification, Sensors, 2021, vol. 21, nr 11, s.1-15, Numer artykułu:3834. DOI:10.3390/s21113834</li> <li>3. Jegorowa Albina, Kurek Jaroslav, Antoniuk Izabella [i in.]: Deep learning methods for drill wear classification based on images of holes drilled in melamine faced chipboard, Wood Science and Technology, 2021, vol. 55, nr 1, s.271-293. DOI:10.1007/s00226-020-01245-7</li> <li>4. Tomasz Ronkiewicz, Aleksiejuk-Gawron Joanna, Awtoniuk Michał [i in.]: Neural modelling of solar radiation variability, Journal of Physics - Conference Series, 2021, vol. 1765, s.1-11, Numer artykułu:012015. DOI:10.1088/1742-6596/1736/1/012015</li> <li>5. Jegorowa Albina, Antoniuk Izabella, Kurek Jaroslav [i in.]: Time-efficient Approach to Drill Condition Monitoring Based on Images of Holes Drilled in Melamine Faced Chipboard, Bioresources, 2020, vol. 15, nr 4, s.9611-9624. DOI:10.15376/biores.15.4.9611-9624</li> <li>6. Jegorowa Albina, Górski Jaroslav, Kurek Jaroslav [i in.]: Use of nearest neighbors (k-NN) algorithm in tool condition identification in the case of drilling in melamine faced particleboard, Maderas-Ciencia y Tecnologia, 2020, vol. 22, nr 2, s.189-196. DOI:10.4067/S0718-221X2020005000205</li> <li>7. Kurek Jaroslav, Antoniuk Izabella, Świdorski Bartosz [i in.]: Application of Siamese Networks to the Recognition of the Drill Wear State Based on Images of Drilled Holes, Sensors, 2020, vol. 20, nr 23, s.1-16, Numer artykułu:6978. DOI:10.3390/s20236978</li> <li>8. Jegorowa Albina, Górski Jaroslav, Kurek Jaroslav [i in.]: Initial study on the use of support vector machine (SVM) in tool</li> </ol>

	<p>condition monitoring in chipboard drilling, European Journal of Wood and Wood Products (HOLZ ALS ROH-UND WERKSTOFF), 2019, vol. 77, nr 5, s.1-3. DOI:10.1007/s00107-019-01428-5</p> <p>9. Kurek Jarosław, Antoniuk Izabella, Górski Jarosław [i in.]: Classifiers Ensemble of Transfer Learning for Improved Drill Wear Classification Using Convolutional Neural Network, Machine Graphics &amp; Vision, 2019, vol. 28, nr 1/4, s.13-23. DOI:10.22630/MGV.2019.28.1.2</p> <p>10. Kurek Jarosław, Antoniuk Izabella, Górski Jarosław [i in.]: Data Augmentation Techniques for Transfer Learning Improvement in Drill Wear Classification Using Convolutional Neural Network, Machine Graphics &amp; Vision, 2019, vol. 28, nr 1/4, s.3-12. DOI:10.22630/MGV.2019.28.1.1</p>
Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order	Assistant supervisor: MSc. Albina Jegorowa "Automatic identification of the tool wear condition when drilling in laminated chipboard," Warsaw University of Life Sciences, Faculty of Wood Technology, Date of doctoral thesis defense: 26/06/2018, field: forest science, discipline: wood industry, defended with honors.
Project/grants achievements (from the last 10 years)	<p>Participation in national research projects</p> <p>1. N506 395135, Innovative methodology for the interpretation of in situ tests of pre-consolidated soils, taking into account the principles of Eurocode 7, Head: prof. Zbigniew M. Lechowicz, Warsaw University of Life Sciences, Faculty of Engineering and Environmental Management, 2008-2011</p> <p>2. N506 218039, Geotechnical design of structures according to Eurocode 7 - IT platform, Head: prof. Kazimierz Garbulewski, Warsaw University of Life Sciences, Faculty of Engineering and Environmental Management, 2010-2013</p> <p>3. 2011/03 / D / ST8 / 04309, Modern artificial intelligence algorithms in geotechnical data analysis, Head: dr inż. Piotr Bilski, Warsaw University of Life Sciences, Faculty of Applied Informatics and Mathematics 2012-2015</p>
Topic – research problem – for which the candidate supervisor seeks a doctoral student	Applications and development of artificial intelligence (machine learning and deep learning).
<p>Contact details:</p> <p>Faulty/Institute</p> <p>E-mail address</p> <p>Tel.</p>	<p>Institute of Information Technology, Department of Artificial Intelligence</p> <p>e-mail:<a href="mailto:jaroslaw_kurek@sggw.edu.pl">jaroslaw_kurek@sggw.edu.pl</a>,</p> <p><a href="https://bw.sggw.edu.pl/info.seam?affil=&amp;ps=20&amp;id=WULSce95bc7d9d6b47ef95baf18a4a9d9ed1&amp;lang=en&amp;pn=1&amp;cid=394206">https://bw.sggw.edu.pl/info.seam?affil=&amp;ps=20&amp;id=WULSce95bc7d9d6b47ef95baf18a4a9d9ed1&amp;lang=en&amp;pn=1&amp;cid=394206</a></p>

	tel: +48 505-482-708
--	----------------------