

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

Name and surname, degree, title: <b>Leszek Chmielewski</b> , D. Sc. (habilitation), Eng., University Prof.	
Academic discipline/disciplines	Information and communication technology
Professional development (degrees and titles) in chronological order	D.Sc. (habilitation): information sciences: image processing), 2008, Institute of Fundamental Technological Research, Polish Academy of Sciences Ph.D.: technical sciences – numerical methods in mechanics, 1985, Warsaw University of Technology
Most important publications/ patents in the last 3 years (maximum 10)	<ol style="list-style-type: none"> <li>1. J. Andrzejak, L. J. Chmielewski, J. Landmesser-Rusek, and A. Orłowski. The impact of the measure used to calculate the distance between exchange rate time series on the topological structure of the currency network. <i>Entropy</i>, 26(4):279, 2024. doi:10.3390/e26040279</li> <li>2. J. Kurek, K. Szymanowski, L. J. Chmielewski, and A. Orłowski. Advancing chipboard milling process monitoring through spectrogram-based time series analysis with Convolutional Neural Network using pretrained networks. <i>Machine Graphics &amp; Vision</i>, 32(2):89–108, 2023. doi:10.22630/MGV.2023.32.2.5</li> <li>3. L. J. Chmielewski, M. Bator, and K. Gajowniczek. One-point Hough transform with centred accumulator. In <i>Progress in Polish Artificial Intelligence Research 4</i>. 2023. Publishers of Lodz University of Technology. doi:10.34658/9788366741928.6</li> <li>4. M. Nieniewski, L. J. Chmielewski, S. Patrzyk, and A. Wozniacka. Studies in differentiating psoriasis from other dermatoses using small dataset and transfer learning. <i>EURASIP Journal on Image and Video Processing</i>, 2023:7. doi:10.1186/s13640-023-00607-y.</li> <li>5. L. J. Chmielewski, M. Nieniewski, and A. Orłowski. Truly random color visual cryptography without surplus color spikes. In <i>Proc. 3rd Polish Conference on Artificial Intelligence PP-RAI'2022</i>, pages 53–56. Publishing House of Gdynia Maritime University. <a href="https://wydawnictwo.umg.edu.pl/pp-rai2022/">https://wydawnictwo.umg.edu.pl/pp-rai2022/</a></li> <li>6. L. J. Chmielewski, M. Nieniewski, and A. Orłowski. Error analysis and graphical evidence of randomness in two methods of color visual cryptography. In <i>Proc. ICCVG 2022</i>, volume 598 of <i>Lecture Notes in Networks and Systems</i>, pages 237–267, Springer, 2023. doi:10.1007/978-3-031-22025-8_17.</li> </ol>

	<p>7. L. J. Chmielewski and A. Orłowski, editors. Computer Vision and Graphics: Proc. ICCVG 2022, 598 of Lecture Notes in Networks and Systems, Warsaw, Poland, 19-21 Sep 2022. Springer, Cham, 2023. doi:10.1007/978-3-031-22025-8.</p> <p>8. L. J. Chmielewski, M. Nieniewski, and A. Orłowski. Testing the randomness of shares in color visual cryptography. Pattern Analysis &amp; Applications, 24(4):1475–1487, 2021. doi:10.1007/s10044-021-00999-5</p> <p>9. L. J. Chmielewski, M. Nieniewski, and A. Orłowski. Can color visual cryptography be truly random? In M. Choraś, R. S. Choraś, M. Kurzyński, et al., editors, Progress in Image Processing, Pattern Recognition and Communication Systems – Proc. Int. Conf. CORES, IP&amp;C, ACS 2021, volume 255 of Lecture Notes in Networks and Systems, pages 72–86, Bydgoszcz, Poland, 28-30 Jun 2021. Springer, 2022. doi:10.1007/978-3-030-81523-3_7</p>
Experience in work with doctoral students (defended doctoral dissertations, initiated doctoral procedures) in chronological order	<p>Scientific supervision of a Ph.D. student: one, domain: sound analysis – classification of sound quality.</p> <p>Open doctoral programmes: one; domain: digital image analysis and processing, machine learning.</p> <p>Completed reviews: four in habilitation processes, 34 in doctoral programmes, domain: digital image analysis and processing, machine learning.</p>
Achievements in the area of projects/grants (in the last 5 years)	<p>1999-2001: Coordinator of the II Thematic Programme Information Society Technologies at the National Contact Point of the Scientific Programmes of the EC. Numerous trainings and workshops for the communities of science and enterprises within the domain of Framework Programmes of the EC.</p>
Subject area of the research project for which the candidate student is being recruited	<p>Domains within the digital image analysis: robust methods, methods related to Hough transform, analysis and measurements of complex shapes, detection and classification of surfaces and shapes and their defects, classification methods and machine learning, cluster analysis, visual cryptography.</p>
<p><u>Contact details:</u></p> <p>Institute</p> <p>E-mail address</p> <p>Telephone number</p>	<p>Institute of Information Technology</p> <p>Faculty of Applied Informatics and Mathematics – WZIM</p> <p><a href="mailto:leszek_chmielewski@sggw.edu.pl">leszek_chmielewski@sggw.edu.pl</a></p> <p>22 593 73 22</p>