

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

Name and surname, degree, title: Leszek Chmielewski, D. Sc. (habilitation), Eng., University Prof.	
Discipline/ disciplines of science	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/patens over the last 3 years (maximum 10)	<ol style="list-style-type: none"> 1. L. J. Chmielewski, M. Bator, and K. Gajowniczek. One-point Hough transform with centred accumulator. In Progress in Polish Artificial Intelligence Research 4. 2023. Publishers of Lodz University of Technology. 2. M. Nieniewski, L. J. Chmielewski, S. Patrzyk, and A. Wozniacka. Studies in differentiating psoriasis from other dermatoses using small dataset and transfer learning. EURASIP Journal on Image and Video Processing, 2023:7. doi:10.1186/s13640-023-00607-y. 3. L. J. Chmielewski, M. Nieniewski, and A. Orłowski. Error analysis and graphical evidence of randomness in two methods of color visual cryptography. In Proc. ICCVG 2022, volume 598 of Lecture Notes in Networks and Systems, pages 237–267, Springer, 2023. doi:10.1007/978-3-031-22025-8_17. 4. L. J. Chmielewski, M. Nieniewski, and A. Orłowski. Testing the randomness of shares in color visual cryptography. Pattern Analysis & Applications, 24(4):1475–1487, 2021. doi:10.1007/s10044-021-00999-5 5. L. J. Chmielewski, M. Nieniewski, and A. Orłowski. Truly random color visual cryptography without surplus color spikes. In Proc. 3rd Polish Conference on Artificial Intelligence PP-RAI'2022, pages 53–56. Publishing House of Gdynia Maritime University. 6. 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. 7. Orłowski and L. J. Chmielewski. Randomness of shares versus quality of secret reconstruction in black-and-white visual cryptography. In Proc. Int. Conf. on Artificial Intelligence and Soft

	<p>Computing ICAISC 2019, volume 11509 of Lecture Notes in Artificial Intelligence, pages 58–69, Zakopane, Poland, 16-20 Jun 2019. Springer, Cham. doi:10.1007/978-3-030-20915-5_6.</p> <p>8. Orłowski and L. J. Chmielewski. Generalized visual cryptography scheme with completely random shares. In Proc. 2nd Int. Conf. Applications of Intelligent Systems APPIS 2019, pages 33:1–33:6, Las Palmas de Gran Canaria, Spain, 7-9 Jan 2019. Association for Computing Machinery. doi:10.1145/3309772.3309805.</p> <p>9. A. Orłowski and L. J. Chmielewski. Ulam spiral and prime-rich polynomials. Computer Vision and Graphics: Proc. ICCVG 2018, volume 11114 of Lecture Notes in Computer Science, pages 522–533, Warsaw, Poland, 17-19 Sep 2018. Springer. doi:10.1007/978-3-030-00692-1_45.</p> <p>10. B. Świdorski, M. Kruk, G. Wieczorek, J. Kurek, K. Śmietańska, L. J. Chmielewski, J. Górski, and A. Orłowski. Feature selection for ‘orange skin’ type surface defect in furniture elements. In Proc. Int. Conf. on Artificial Intelligence and Soft Computing ICAISC 2018, volume 10842 of Lecture Notes in Artificial Intelligence, pages 81–91, Zakopane, Poland, 3-7 Jun 2018. doi:10.1007/978-3-319-91262-2_8.</p>
Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order	<p>Open doctoral programmes: one; domain: digital image analysis and processing, machine learning.</p> <p>Completed reviews: three in habilitation processes, 29 in doctoral programmes, domain: digital image analysis and processing, machine learning.</p>
Project/grants achievements (from the last 10 years)	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.
Topic – research problem – for which the candidate supervisor seeks a doctoral student	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, visual cryptography.
<p><u>Contact details:</u></p> <p>Faulty/Institute</p> <p>E-mail address</p> <p>Phone</p>	<p>Institute of Information Technology</p> <p>Faculty of Applied Informatics and Mathematics – WZIM</p> <p>leszek_chmielewski@sggw.edu.pl</p> <p>22 593 72 27</p>