

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

Name and surname, degree, title: Michał Kruk , D.Sc., Prof. SGGW (Warsaw Uni. Life Sc.)	
Discipline/ disciplines of science	Information and communication technology
Professional development (degrees and titles) in chronological order	<p>M.Sc. – information technologies (Warsaw University of Technology., Poland), 2004.</p> <p>Ph.D. – electrotechnics (Warsaw University of Technology., Poland), 2008.</p> <p>D.Sc. - discipline: automation and robotic (Warsaw University of Technology., Poland) - 2017.</p>
Most important publications/patens over the last 3 years (maximum 10)	<ol style="list-style-type: none"> 1. Swiderski, Bartosz; Osowski, Stanislaw; Kurek, Jaroslaw; Kruk, Michal; Lugowska, Iwona; Rutkowski, Piotr; Barhoumi, Walid; Novel methods of image description and ensemble of classifiers in application to mammogram analysis, Expert Systems with Applications, 81, 67-78, 2017, Pergamon 2. Kruk, Michal; Kurek, Jaroslaw; Osowski, Stanislaw; Koktysz, Robert; Swiderski, Bartosz; Markiewicz, Tomasz; Ensemble of classifiers and wavelet transformation for improved recognition of Fuhrman grading in clear-cell renal carcinoma, Biocybernetics and Biomedical Engineering, 37, 3, 357-364, 2017, Elsevier 3. Kruk, Michal; Świderski, Bartosz; Śmietańska, Katarzyna; Kurek, Jaroslaw; Chmielewski, Leszek J; Górski, Jaroslaw; Orłowski, Arkadiusz; Detection of 'Orange Skin' Type Surface Defects in Furniture Elements with the Use of Textural Features, IFIP International Conference on Computer Information Systems and Industrial Management, 402-411, 2017, "Springer, Cham" 4. Kurek, Jaroslaw; Wieczorek, Grzegorz; Kruk, Bartosz; Swiderski Michal; Jegorowa, Albina; Osowski, Stanislaw; "Transfer learning in recognition of drill wear using convolutional neural network, 2017 18th International Conference on Computational Problems of Electrical Engineering (CPEE), 1-4, 2017, IEEE 5. "Dhahbi, Sami; Barhoumi, Walid; Kurek, Jaroslaw; Swiderski, Bartosz; Kruk, Michal; Zagrouba, Ezzeddine; False-positive reduction in computer-aided mass detection using mammographic texture analysis and classification, Computer Methods and Programs in Biomedicine, 160, 75-83, 2018, Elsevier 6. Kurek, Jaroslaw; Wieczorek, Grzegorz; Swiderski, Bartosz; Kruk, Michal; Jegorowa, Albina; Gorski, Jaroslaw; "Automatic Identification of Drill Condition During Drilling Process in

	<p>Standard Laminated Chipboard with the Use of Long Short-Term Memory (LSTM),19th International Conference Computational Problems of Electrical Engineering,,1-4,2018,IEEE</p> <p>7. Kurek, J; Świdorski, B; Osowski, S; Kruk, M; Barhoumi, W; Deep learning versus classical neural approach to mammogram recognition,Bulletin of the Polish Academy of Sciences. Technical Sciences,66,6,,2018,</p> <p>8. Jegorowa, Albina; Górski, Jarosław; Kurek, Jarosław; Kruk, Michał;,Initial study on the use of support vector machine (SVM) in tool condition monitoring in chipboard drilling,European Journal of Wood and Wood Products,,1-3,2019,Springer</p> <p>Jegorowa, Albina; Górski, Jarosław; Kurek, Jarosław; Kruk, Michał; Use of nearest neighbors (k–nn) algorithm in tool condition identification in the case of drilling in melamine faced particleboard,Maderas. Ciencia y Tecnología,22,2,,2020,</p>
Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order	27.11.2013, Auxiliary supervisor, <i>Testing the dispersion properties of soils used for waterproofing hydrotechnical structures</i>
Project/grants achievements (from the last 10 years)	<ol style="list-style-type: none"> 1. N506 395135, 2. N506 218039, 3. 2011/03/D/ST8/04309, , 4. TANGO1/2666877/NCBR/2015,
Topic – research problem – for which the candidate supervisor seeks a doctoral student	computer vision, image processing, diagnostics systems, image analysis, artificial intelligence, numerical methods, biomedicine, neural networks
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