Candidate supervisor's information summary form

maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title: **Prof Andrzej Śluzek (PhD, DSc)**	
Academic discipline/disciplines	Information and communication technology
Professional development (degrees and titles) in chronological order	**MEng**, Warsaw University of Technology, Faculty of Technical Physics and Applied Mathematics. **PhD** (discipline – automatic control and informatics), Warsaw University of Technology, Faculty of Electronics. **DSc/habilitacja** (discipline – automatic control and robotics), Warsaw University of Technology, Faculty of Electronics. **Professor** (discipline – informatics), President of Poland
Most important publications/ patents in the last 3 years (maximum 10)	1. Śluzek, A. (2025). An Unorthodox Technique for Enhancing Monochrome Images of Natural Scenes, 6th Polish Conference on Artificial Intelligence PP-RAI 2025, April 2025 (accepted). 2. Śluzek, A. (2024). Incremental Image Decolorization with Randomizing Factors, 32nd European Signal Processing Conf. (EUSIPCO 2024) , Lyon (France), August 2024, pp. 591-595, doi: 10.23919/EUSIPCO63174.2024.10715444. 3. Śluzek, A. (2023). Relationships between colorization and pseudo-colorization of monochrome images. *Machine Graphics and Vision*, 32 (3/4), p 65–82. doi: 10.22630/MGV.2023.32.3.4 4. A. Śluzek, M. Dudziński and T. Świsłocki (2023). Automatic Colorization of Digital Movies Using Decolorization Models and SSIM Index*, 2023 18th Conference on Computer Science and Intelligence Systems (FedCSIS),* Warsaw2023, pp. 843-853, doi: 10.15439/2023F3017. 5. Śluzek, A. (2023). On Unguided Automatic Colorization of Monochrome Images. Computer Science Research Notes - CSRN 3301, WSCG 2023, Plsen, p. 379-384, doi: 10.24132/CSRN.3301.38 6. Śluzek, A. (2023). Do we always need AI for image colorization?. Wojciechowski A.(Ed.), Lipiński P.(Ed.)., Progress in Polish Artificial Intelligence Research 4, Łódź 2023, ISBN 978-83-66741-92-8, doi: 10.34658/9788366741928 7. Zitouni, M.S., Śluzek, A. (2022) *A Data Association Model for Analysis of Crowd Structure*, International Journal of Applied Mathematics and Computer Science, vol.32, no.1, 2022, pp.81-94, doi: 10.34768/amcs-2022-0007.
Experience in work with doctoral students (defended doctoral dissertations, initiated doctoral procedures) in chronological order	**Advisor of 8 defended PhD dissertations (the most recent four mentioned below):** M. Sami Zitouni: *Visual Analysis of Crowds for Socio-Cognitive Behaviors Understanding*. Khalifa University (Abu Dhabi, UAE), 2019. Sohailah Alyammahi: *Crowd Emotion Detection and Visualization from Stationary Video Feeds*. Khalifa University (Abu Dhabi, UAE), 2018.

	Elahe Farahzadeh: *Tools for Visual Scene Recognition using the Local Approach.* Nanyang Technological University (Singapore), 2014. Zhu Lin: *An Adaptive Edge-preserving Color Image Regularization Framework by Partial Differential Equations.* Nanyang Technological University (Singapore), 2012.
Achievements in the area of projects/grants (in the last 5 years)	**2018 – 2023:** principal investigator of *Visual Multi-spectral Semantic Analysis and Prediction using Unmanned Vehicles*, project RII.2 of KUCARS research center grant (Khalifa University). Effectively until 2021. **2017 – 2019:** external co-principal investigator of *Eyegaze estimation using deep appearance in natural environment*, grant AcRF 2017-T1-001-137, Ministry of Education (Singapore).
Subject area of the research project for which the candidate student is being recruited	Improving the quality of image data from non-visual domains (IR, USG, MRI, X-ray, etc.) using colorization and decolorization methods to enhance the effectiveness of AI techniques analyzing this data. The topic can be extended to data from natural visual domains.
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