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

Name and surname, degree, title:	**Ryszard Kozera**, D.Sc., Prof. SGGW (Warsaw Uni. Life Sc.)
Discipline/ disciplines of science	Information and communication technology
Professional development (degrees and titles) in chronological order	**M.Sc.** - mathematics (Warsaw Uni., Poland), **1985**. **Ph.D.** – computer science (Flinders Uni. South Australia, Australia), **1991**. **Dr.** - mathematics (Warsaw Uni.), **1992** – recognition of **b)**. **D.Sc.** - field: technical sciences, discipline: computer science (Silesian Uni. Tech., Poland) - **2006**.
Most important publications/patens over the last 3 years (maximum 10)	1. *"Generic case of Leap-Frog Algorithm for optimal knots selections in fitting reduced data"*, **R. Kozera**, L. Noakes and A. Wiliński, LNCS Springer, Int. Conf. Computational Science (ICCS'21, Kraków, Poland, 2020). In press - **2021**. 2. *" Exponential parameterization to fit reduced data"*, **R. Kozera**, L. Noakes and M. Wilkołazka, Appl. Maths Comput. 391(C), 125646, **2021**. 3. *"Parameterizations and Lagrange cubics for fitting multidimensional data"*, **R. Kozera**, L. Noakes and M. Wilkołazka, LNCS 12138, Springer Nature Switzerland AG, Int. Conf. Computational Science (ICCS'20, Amsterdam, The Netherlands, 2020), 124-140, **2020**. 4. *"A note on modified Hermite interpolation"*, **R. Kozera** and M. Wilkołazka, Maths Comput. Sci. 14, 223-235, **2020**. 5. *"Efficient numerical algorithms for constructing orthogonal generalized doubly stochastic matrices"*, A. Smoktunowicz, **R. Kozera** and G. Oderda, Appl. Numer. Anal. 142, 16-27, **2019**. 6. *"Integrated multi-channel optical system for bacteria characterization and its potential use for monitoring of environmental bacteria"*, I. Buzalewicz, A. Suchwałko, P. Trzciński, L. Sas-Paszt, B. Sumorok, K. Kowal, **R. Kozera**, A. Wieliczko and H. Podbielska. Biomedical Optics Express 10(3), 1165-1183, **2019**. 7. *"Convergence order in trajectory estimation by piecewise cubics and exponential parameterization"*, **R. Kozera** and M. Wilkołazka, Math. Model. Anal. 24 (1), 72-94**, 2019**. 8. *"A modified Hermite interpolation with exponential parameterization"*, **R. Kozera** and M. Wilkołazka, Math. Comput. Sci. 13, 143-155, **2019**. 9. *"Application of computer algebra for the reconstruction of surface from its photometric images"*, **R. Kozera**, A. Prokopenya and A. Wiliński, Program. Comput. Softw. 44 (6), 546-553, **2018**. 10. *"Application of computer algebra to photometric stereo with two light sources"*, **R. Kozera** and A. Prokopenya, Program. Comput. Softw. 44 (2), 112-119, **2018**.

	125 publications (journal & conference proceedings' papers or monographs' chapters) including **2** each over **100** page papers.
Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order	**1. Dr S. Collings** (mathematics & computer science), The Uni. Western Australia, Perth, Australia (**conferred** in **2007**) - *"Frontier Points Theorems and Methods for Computer Vision"* - **5 publications** referring to Ph.D. topic. **2. Dr M. Dolecki** (computer science), Silesian Uni. Tech., Poland (**conferred** in **2014**) - *"Classification of Synchronization Time for Tree Parity Machine Used for Reconciliation of Cryptographic Keys"* - **6 publications** referring to Ph.D. topic. **3. Mgr M. Wilkołazka** (computer science), Silesian Uni. Tech. (**open doctoral dissertation** in **2018**) – **11 publications** referring to Ph.D. topic. **Reviewer: 6 Ph.D. theses** (Australia, New Zealand, Poland, Singapore, United Arab Emirates) and **1 D.Sc. thesis** and **1 D.Sc. monograph** referee (both in Poland).
Project/grants achievements (from the last 10 years)	**a)** Participation in project with Horticulture Institute, Skierniewice, Poland - National Center of Research and Development (IS-2/41/NCBR/2015), 2015-2017. **b)** Visiting Research Fellowship, School of Mathematics and Statistics, Uni. of Western Australia, Perth, Australia, 2015-2016. **c)** Participation in project: New technologies of the high resolution face animation and acquisition, Polish-Japanese of Academy of Information Technology, Bytom, Poland - National Center of Research and Development, 2015. **d)** Participation in EU project: Elaboration of Innovative Products for Ecological Cultivation of Horticultural Plants, EkoTechProdukt UDAPOIG.01.03.01-00-109/08, Intelligent Methods for Recognition of Microorganism in the Soil Environment, with Horticulture Institute, Skierniewice, Poland, 2013-2015 ***Previous projects: 5 in Germany and 2 in Australia.***
Topic – research problem – for which the candidate supervisor seeks a doctoral student	Computer vision, image analysis, artificial intelligence, numerical methods, optimization, data modelling, interpolation, applied mathematics in computer science and engineering (e.g. biomedicine, trajectory and surface modelling, 3D reconstruction, noise filtering or neural networks).
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