Candidate supervisor's information summary form

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

Name and surname, degree, title: Adam Ekielski, BEng, PhD, ProfTit	
Discipline/ disciplines of science	Mechanical Engineering
Professional development (degrees and titles) in chronological order	2014 Habilitation in Agricultural Engineering: SGGW-WULS 2001 PhD in Agricultural Engineering: WULS-SGGW 1993 MSc Eng: Warsaw University of Technology. Faculty of Precision Mechanics (Mechatronics)
Most important publications/patens over the last 3 years (maximum 10)	Gupta, A., Sharma, V., Mishra, P.K., Ekielski, A.: A Review on Polyacrylonitrile as an Effective and Economic Constituent of Adsorbents for Wastewater Treatment. Molecules 2022, 27, x. https://doi.org/10.3390/xxxxx. (IF=4,412)(140 pkt). Kowalska, E.; Ziarno, M.; Ekielski, A.; Żelaziński, T. Materials Used for the Microencapsulation of Probiotic Bacteria in the Food Industry. Molecules 2022, 27, 3321. https://doi.org/10.3390/molecules27103321 . (IF=4,412) (140 pkt.) Tiwari, S.S.; Bale, S.; Das, D.; Tripathi, A.; Tripathi, A.; Mishra, P.K.; Ekielski, A.; Suresh, S. Numerical Simulations of a Postulated Methanol Pool Fire Scenario in a Ventilated Enclosure Using a Coupled FVM-FEM Approach. Processes 2022, 10, 918. https://doi.org/10.3390/pr10050918 . Processes (IF= 2,847) (70 pkt.) Osipov, A.; Shumaev, V.; Ekielski, A.; Gataullin, T.; Suvorov, S.; Mishurov, Gataullin, S.; Classification of Mechanical Damage During Continuous Harvesting of Root Crops Using Computer Vision Methods", IEEE Access , Volume 10, 2022, p. 28885-28894, Print ISSN: 2169-3536, Online ISSN: 2169-3536, https://doi.org/10.1109/ACCESS.2022.3157619 (IF=3,367) (100 pkt). Mishra P. K.; Pavelek, O; Rasticova, M.; Mishra, H.; Ekielski, A.; Nanocellulose-Based Biomedical Scaffolds in Future Bioeconomy: A Techno-Legal Assessment of the State-of-the-Art . Frontiers in Bioengineering and Biotechnology. Volume 9, 2022, ISSN:2296-4185. https://doi.org/10.3389/fbioe.2021.789603 (IF=5,890), (100 pkt). K Durczak, J Selech, A Ekielski, T Żelaziński, M Waleński, K Witaszek; Using the Kaplan–Meier Estimator to Assess the Reliability of Agricultural Machinery. Agronomy 12 (6), 1364. https://doi.org/10.3390/agronomy12061364 (IF=3,949). Niedźwiedź, A.; Konkol, D.; Ekielski, A.; Paszta, W.; Wykorzystanie izolatu β-glukanu z owsa w leczeniu syndromów wrzodów żołądka koni. Weterynaria w Terenie (4/2022), p. 63-66. Issn: 1896-7655. Grochowicz, J.; Fabisiak, A.; Ekielski, A. Importance of physical and functional properties of foods targeted to seniors. Journal of Future Foods, Volume 1, Issue 2, 2021, 146-155, ISSN 2772-5669. https://doi.org/10.1016/j.jfutfo.2022.01.004 Ekielski, A.; Żelaziński, T.; Mishra, P.K.; Skudlarski, J. Properties of Biocomposites Produced with Thermoplastic Starch and Digestate: Physicochemical and Mechanical Characteristics. Materials 2021, 14, 6092. https://doi.org/10.3390/ma14206092 (140 pkt) IF=3,623

Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order	2020-2024: PhD thesis supervisor: Modeling and simulation of a hybrid heating system. 2021-2024: PhD thesis co-supervisor: Micro-encapsulation of probiotic bacteria.
Project/grants achievements (from the last 10 years)	2021-2022: "Innovation Incubator 4.0" Main manager of the task, project title: "Technology of applying to biodegradable materials, waterproof, high-adhesion coatings refined with nanolignin". Years of implementation "2021-2022. MNISW / 2020/358 / DIR 2021: Manager of the task: Stage 3 / Task 2, implemented under the competition project 8 / 1.1.1 / 2019 - "Fast path" Heating Devices "" for SMEs under Measure 1.1: R&D projects of enterprises, Sub-measure 1.1.1 2020: Manager of the task: Stage 1 / Task no. 2: of the competition implemented under the project 8 / 1.1.1 / 2019 - "Fast path" Heating Devices "" for SMEs under Measure 1.1: R&D projects of enterprises, Sub-measure 1.1.1 2020-2021: ULAMA scholarship "Pawan Kumar Mishra": AGREEMENT ON ADMISSION OF A FOREIGN PERSON FOR RESEARCH OR DEVELOPMENT WORK NO. [PPN / ULM / 2019/1/00289 / U / 00001] Years of implementation: 2020-2021. 2020-2024: Manager-Supervisor. Implementation doctorate, contract DWD / 4/14/2020, "Modeling and simulation of a heating system powered by biomass, electricity from the grid, from a photovoltaic installation or a solar installation, integrated with a thermal energy storage". 2019-2020: Main manager of the task, project title: "Innovation Incubator". Title: "Production technology of deep-pressed biodegradable dishes coated functional coatings". 2018-2019: Main manager of the task, project: "Innovation Incubator". Title: "Starch basis functional layers uses for the modern packagins". WULS grant 2017 - 2018: Main Project Leader, Hardis Interreg Project, Czech-Austria project, ATCZ21. "Mechanical disintegration of hardwood". Funding program: Interreg V-A Austria-Czech Republic 2014-2020
Topic – research problem – for which the candidate supervisor seeks a doctoral student	1. Metrological and mechanical properties of UV biosensors obtained from lignin. 2. Construction of a model of dynamic deformation of biocomposite shells. 3. Influence of the type of solvent on the electrical conductivity and mechanical properties of lignosulfonate coatings. 4. Development of a model for the absorption of plastic microparticles by lignocellulosic structures. 5. The model of biodegradable materials deformation under dynamic stresses and UV radiation. Digital Image Correlation.
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