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

Name and surname, degree, title: Aleksander Lisowski, PhD, DSc, Prof.	
Academic discipline/disciplines	**1989** – PhD, Faculty of Agricultural and Forestry Engineering, WULS.
Professional development (degrees and titles) in chronological order	**2000** – DSc, Institute for Building, Mechanization and Electrification in Agriculture, Warsaw.
Most important publications/ patents in the last 3 years (maximum 10)	Tryjarski P., **Lisowski A**., Gawron J. Obstawski P. Physicomechanical properties of raw and comminuted pine and poplar shavings: energy consumption, particle size distribution and flow properties. *Wood Sci Technol* 2023, 57, 2, 625-649. Tryjarski P., **Lisowski A**., Gawron J. 2024. Pressure agglomeration of raw, milled and cut-milled pine and poplar shavings: assessment of the compaction process and agglomerate strength. *European Journal of Wood and Wood Products* 82(3): 885–903. Tryjarski, P., **Lisowski, A.,** Świętochowski, A. Pretreatment of pine and poplar particleboards with Pleurotus ostreatus (Jacq.): physicomechanical and chemical properties of wood, potential of solid fuel and biogas production. *European Journal of Wood and Wood Products* 2025, 83:34. https://doi.org/10.1007/s00107-024-02192-x. **Lisowski A.,** Lauryn D., Nowakowski T., Klonowski J., Świętochowski A., Sypuła M., Chlebowski J., Kamiński J., Kostyra K., Dąbrowska M., Strużyk A., Mieszkalski L., Stasiak M. Impact of tine stiffness and operational parameters on soil disturbance profiles: moisture content, speed, depth, width, and cross-sectional analysis of furrows by duckfoot tools. *International Agrophysics* 2025, 39, 287-299. doi: 10.31545/intagr/200553. **Lisowski A.**, Lauryn D., Nowakowski T., Klonowski J., Świętochowski A., Sypuła M., Chlebowski J., Kamiński J,. Kostyra K., Dąbrowska M., Strużyk A., Mieszkalski L., Stasiak M. Empirical Models for Estimating Draught and Vertical Reaction Forces of a Duckfoot Tool in Compacted Soil: Effects of Moisture Content, Depth, Width, and Speed, *Applied Sciences-Basel*, 2025, 15(7), 3573. DOI:10.3390/app15073573. Gut Z., **Lisowski A.,** Klonowski J., Świętochowski A. Advancing precision agriculture: Assessing the capability of electrical capacitance tomography for monitoring chopped maize mass flow rates in field forage harvesters. *Scientific Reports* 2025 15:13125, https://doi.org/10.1038/s41598-025-97427-z. Fabiszewska A., Piasecka-Jóźwiak K., Choińska R., Wróbel B., Miecznikowski A., Wierzchowska K., Świętochowski A., Dąbrowska M., Bujak M., Reshetiuk V., **Lisowski A**. Enhancing

	propionic acid formation and biogas yield from grass silage via co-fermentation of *Pediococcus acidilactici* and *Lentilactobacillus buchneri*. *BioresourceTechnology* 2025, vol. 437, s.1-15, nr:133107. DOI:10.1016/j.biortech.2025.133107. Świętochowski A., **Lisowski A.,** Lauryn D., Nowakowski T., Klonowski J., Sypuła M., Chlebowski J., Dąbrowska M. Modification and application of Söhne, McKyes, and Perumpral models for predicting draught forces in a duckfoot tool. *Applied Sciences* 2025, 15, 12306. https://doi.org/10.3390/app15221306. Nowakowski T., **Lisowski A.**, Świętochowski A., Gach S., Rusek G. Patent B1 **244896** data udzielenia prawa 01.12.2023: Opryskiwacz sadowniczy z kierowanym strumieniem powietrza. **Lisowski A.,** Tucki K., Mieszkalski L. Patent B1 **248654** data udzielenia prawa 16.10.2025: Krajalnica do warzyw korzeniowych i owoców
Experience in work with doctoral students (defended doctoral dissertations, initiated doctoral procedures) in chronological order	Niewęgłowski Krzysztof, defense 27.06.2006 Wardecki Piotr, defense 21.11.2006 Motyl Krzysztof, defense 18.11.2008 Świątek Krzysztof, defense 23.11.2010 Świętochowski Adam, defense 01.04.2014 Dąbrowska Magdalena, defense 03.11.2015 Stasiak Patryk, defense 03.11.2015 Piątek Michał, defense 29.06.2021 Matkowski Patryk, defense 29.09.2021 Tryjarski Paweł, defense 14.10.2025
Achievements in the area of projects/grants (in the last 5 years)	-
Subject area of the research project for which the candidate student is being recruited	Conversion of biomass into biogas or solid fuels. Physical relations of the working element-soil. Modeling of physical processes of separation and densification of biological materials.
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