Data of Supervisors of the Doctoral School at WPUT

Supervisor: (academic titles and degrees, name and surname)	dr hab. Paweł Majda prof ZUT
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ORCID	0000-0001-6238-655X
Scientific discipline::	Mechanical Engineering
Description of research areas (max 2000)	The supervisor specializes in the analysis and development of methods for estimating measurement uncertainty, especially in the context of multidimensional calibrations. His research focuses on the development of methods for generating correlated vectors of random variables with an arbitrary distribution. In his work, he analyzes and verifies existing approaches, such as the law of uncertainty propagation, the Monte Carlo method and methods based on integral convolutions, assessing their accuracy and scope of application. A key aspect of his activity is the development of a new, universal software tool supporting the digitization of metrology, enabling effective uncertainty estimation and adjustment of calibration results to digital standards, such as the digital calibration certificate (DCC). He is involved in work on the automation of measurement data exchange between laboratories and the improvement of calibration processes in accordance with international standards. His research activity has significant implementation potential, especially in the context of metrological laboratories and accredited units, where new solutions can increase work efficiency and improve the accuracy and consistency of measurements. Thanks to his knowledge and experience, he contributes to the development of modern metrology, placing emphasis on correctness and precision, interoperability and digital archiving of measurement data.
Keywords (max 10)	metrology, measurement uncertainty, calibration, accuracy, machine tools, machine tool stiffness, geometric specification of products