

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

Name and surname, degree, title: PhD, DSc, Konrad Furmańczyk, Associate Professor	
Discipline/ disciplines of science	Information and communication technology
Professional development (degrees and titles) in chronological order	<p>1996 – MSc.- Faculty of Mathematics, Informatics and Mechanics, University of Warsaw</p> <p>2004 – PhD in mathematical sciences, Faculty of Mathematics, Informatics and Mechanics, University of Warsaw</p> <p>2017 – DSc. in mathematical sciences. Faculty of Mathematics, Computer Science and Econometrics University of Zielona Góra</p>
Most important publications/patens over the last 3 years (maximum 10)	<ol style="list-style-type: none"> <li>1. Chmielewski, L, Furmańczyk, K, Orłowski, A. Combined change detector based on competitive filters and statistical tests. 2nd International conferece on applications of intelligent systems (APPIS 2019), DOI: 10.1145/3309772.3309803, Springer</li> <li>2. Furmańczyk, K, Rejchel, W. High-dimensional linear model selection motivated by multiple testing. Statistics (2020), 54(1) s. 152-166</li> <li>3. Furmańczyk, K, Rejchel, W. Prediction and Variable Selection in High-Dimensional Misspecified Binary Classification. Entropy (2020) 22(5), 543 Special Issue Nonparametric Statistical Inference with An Emphasis on Information-Theoretic Method</li> <li>4. Furmańczyk, K. Estimation of autocovariance matrices for high dimensional linear processes. Metrika (2020) DOI:10.1007/s00184-020-00790-2</li> <li>5. Furmańczyk K, Dudziński M, Dziewa-Dawidczyk D, Some Proposal of the High Dimensional PU Learning Classification Procedure , Computational Science – ICCS 2021. Lecture Notes In Computer Science, 2021, vol. 12744, Springer, s.18-25, ISBN 978-3-030-77966-5. DOI:10.1007/978-3-030-77967-2_2</li> </ol>

<p>Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order</p>	<p>PhD theses undergoing at IIT SGGW:  2020 auxiliary supervisor in the process of Sylwia Stachowiak, MSc  2020 supervisor in the conduct of Kacper Paczutkowski MSc (Doctoral School of Warsaw University of Life Sciences)</p>
<p>Project/grants achievements (from the last 10 years)</p>	<p>Since 2008, participation in the goal-oriented project no. 6 PO5 2005 C / 06572  "Implementation of the system of prevention and early detection of allergic diseases in Poland" (ECAP - Epidemiology of Allergic Diseases in Poland), commissioned by the Minister of Health.  I was in charge of the task: statistical data analysis in the ECAP study.</p>
<p>Topic – research problem – for which the candidate supervisor seeks a doctoral student</p>	<p>The scope of my research works includes statistical data analysis (biomedical and epidemiological data), methods of mathematical statistics (testing multiple hypotheses, selection of variables in statistical models, classification in a misspecified statistical model, modeling data dependence by domes, graphical models, time series). PU learning. Stock market data analysis and Markovitz model. Statistical models for high-dimensional data, medical data analysis. Data mining methods in data analysis applications. Monte Carlo methods in data analysis.</p>
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