

### Data of Supervisors of the Doctoral School at WPUT

Supervisor: (academic titles and degrees, name and surname)	<b>Prof. dr hab. inż. Aleksandr Cariow</b>
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Scientific Discipline(s):	Information and Communication Technology
Research Areas (max. 2000 characters):	<ol style="list-style-type: none"><li>1. Improving digital signal processing techniques in deep neural networks using real, complex and hypercomplex number systems.</li><li>2. Implementation of algorithms and processor unit structures dedicated to digital signal processing in embedded systems on FPGA, ASIC, SOC, NOC, GPU platforms.</li><li>3. Design of processor systems oriented to image processing and recognition in mobile battery-powered Tiny MI neural networks (also called Edge AI)</li></ol>
Keywords (max. 10):	Digital signal processing, digital image processing, pattern recognition, matrix computations, fast algorithms, Kronecker product algebra, hypercomplex numbers, Edge AI.