Curriculum Vitae

<table>
<tr><td rowspan="6">Personal Information</td><td>Name</td><td>Arkadiusz Mystkowski</td><td>Gender</td><td>Male</td><td rowspan="3">  </td></tr>
<tr><td>Academic Title</td><td colspan="3">Associate Prof.</td></tr>
<tr><td>College</td><td colspan="3">Bialystok University of Technology, Faculty of Electrical Engineering</td></tr>
<tr><td>Discipline</td><td colspan="4">Automatic Control and Robotics</td></tr>
<tr><td>Email</td><td colspan="4">a.mystkowski@pb.edu.pl</td></tr>
<tr><td>Mail Add.</td><td colspan="4">Wiejska 45D, 15-351 Bialystok, Poland</td></tr>
<tr><td>Educational Background</td><td colspan="5">M.S.M.E degree with high distinction in Industrial Process Automation in 2003 from Bialystok University of Technology. Ph.D. degree in Automatic Control and Robotics with high distinction in 2007 and D.Sc. degree in Automatic Control and Robotics in 2016 from University of Science and Technology in Cracow.</td></tr>
<tr><td>Working Experience</td><td colspan="5">From 2003 to 2007: professor assistant, from 2007-2019: postdoctoral researcher at Faculty of Mechanical Engineering, Bialystok University of Technology, since 2019-present: Associate professor at Faculty of Electrical Engineering, Bialystok University of Technology.</td></tr>
<tr><td>Research Interests</td><td colspan="5">I am working on general control theory with applications especially on robust optimal control (i.e. Hinf, mu-Synthesis, loop-shaping), system's uncertainty design, machine learning. Applications areas include Active Magnetic Bearings systems, rotating machinery, flexible structures, automation control, robotics. My current research focuses on Iterative Learning Control, Fractional-order Control, Vibration Energy Harvesting, smart sensors, and its application to robotics and mechatronics.</td></tr>
<tr><td>Major Publications*</td><td colspan="5">[1] Mystkowski A., Koszewnik A.P., Mu-Synthesis robust control of 3D bar structure vibration using piezo-stack actuators, Mechanical Systems and Signal Processing, Vol. 78, pp. 18–27, 2016. impact factor 4.116.
[2] Eidukynas D., Jūrėnas V., Dragašius E., Mystkowski A., Burst type signal generator for ultrasonic motor control, Eksploatacja i niezawodnosc – Maintenance and reliability, Vol. 18 (4), pp. 488–491, 2016. impact factor 1.145.
[3] Vėžys J., Dragašius E, V. Volkovas Mystkowski A., Korobko E., The sedimentation of magneto-rheological fluid monitoring system based on</td></tr>
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		resistivity measuring, *Mechanika*, Vol. 22(5), pp. 449–452, 2016. **impact factor 0.382.**
	[4]	Smoliński M., Perkowski T., Mystkowski A., Dragašius E., Eidukynas D, Jastrzebski RP., AMB flywheel integration with photovoltaic system for household purpose – modelling and analysis, *Eksploatacja i Niezawodnosc – Maintenance and Reliability*, Vol. 19(1), 86–94, 2017. **impact factor 1.145.**
	[5]	Mystkowski A., Pawluszewicz E., Nonlinear position-flux zero-bias control for AMB system with disturbance, *Applied Computational Electromagnetics Society Journal*, Vol. 32, No. 8, pp. 650–656, August 2017, **impact factor 0.590.**
	[6]	Mystkowski A., Kaparin V., Kotta Ü., Pawluszewicz E., Tõnso M., Feedback linearization of active magnetic bearing system operated with zero-bias flux, *International Journal of Applied Math.. Comput. Sci*., Vol. 27, No 3, pp. 539–548, 2017, **impact factor 1.420.**
	[7]	Mystkowski A., Kotta Ü., Kaparin V., Newton observer for a nonlinear flux-controlled AMB system, *Proc. of Estonian Academy of Sciences*, Vol. 67, No 1, pp. 61–72, 2018, **impact factor 0.843.**
	[8]	Mystkowski A., Zolotas A., PLC-based discrete fractional-order control design for an industrial-oriented water tank volume system with input delay, *Fractional Calculus and Applied Analysis,* 21(4), 1005–1026, DOI: 10.1515/fca-2018-0055, 2018. **impact factor 2.865.**
	[9]	Mystkowski A., Kierdelewicz A., Fractional-order water level control based on PLC: hardware-in-the-loop simulation and experimental validation, *Energies,* 11(2928), 1–15, DOI: 10.3390/en11112928, 2018. **impact factor 2.676.**
	[10]	Mystkowski A., Kierdelewicz A., Kotta Ü., Kaparin V., Experimental validation of the Newton observer for a nonlinear flux-controlled AMB system operated with zero-bias flux, *International Journal of Control*, DOI: 10.1080/00207179.2018.1552025, 2018, **impact factor 2.101.**
	[11]	Mystkowski A., Kierdelewicz A., Jastrzebski R.P, Dragašius E., Eidukynas D., Flux measurement and conditioning system for heteropolar active magnetic bearing using Kapton-foil Hall sensors, *Mechanical Systems and Signal Processing*, 115 (2019) 394–404. **impact factor 4.516.**
	[12]	Mystkowski A., Lyapunov sliding-mode observers with application for active magnetic bearing operated with zero–bias flux, *Journal of Dynamic Systems Measurement and Control, Transactions of the ASME,* DOI: 10.1115/1.4041978, Vol. 141, (2019), pp. 1-12, **impact factor 1.521.**
	[13]	Mystkowski A., Kierdelewicz A., Experimental Verification of Nonlinear

	Position-Flux Zero-Bias Control for Heteropolar Active Magnetic Bearing *Applied Computational Electromagnetics Society Journal*, Vol. 34 No 4, (2019), pp. 577−583, 2019. **impact factor 0.59.** [14] Mystkowski A., Ostasevicius V., Experimental study of macro fiber composite-magnet energy harvester for self-powered active magnetic bearing rotor vibration sensor, Energies, 13(4806), 2020, doi:10.3390/en13184806. **impact factor 2.702.** [15] Dragašius E., Eidukynas D., Jūrėnas V., Mažeika D., Galdikas M., Mystkowski A., Mystkowska J., Piezoelectric Transducer-Based Diagnostic System for Composite Structure Health Monitoring, *Sensors*, 2021, 21, 253. doi:10.3390/s21010253. **impact factor 3,275.**
Research Projects*	1. Developments in theory and practical applications of Iterative Learning Control (ILC), repetitive processes and multidimensional (nD) systems. 2. Autonomous Vessel with Air Look (AVAL). 3. Network-centric support system for reconnaissance and command of crisis situations in urban areas with autonomous unmanned aerial vehicles. 4. Autonomous, integrated reconnaissance system based on autonomous micro aero vehicles.
Professional Membership	1. Member, editor in MDPI and other journal's boards. 2. Polish Information Processing Society. 3. Polish Electricians Associations. 4. Polish Association of Mechanical Engineers and Technicians. 5. Polish Society of Theoretical and Applied Electrical Engineering
Potential Research Projects**	1. Vibration Energy harvesting systems for rotating machines. 2. Magnetic bearings control. 3. Magneto-bodied flexible robots. 4. Low self-powered sensors and health monitoring systems.

* Please list achievements of recent 5 years

** This CV is intended to match Chinese and Polish Scientists within SPUC member universities, and Potential Research Projects is intended to apply for Sino-Polish or EU scientific cooperation projects.