Curriculum Vitae

<table>
<tr><td rowspan="5">Personal Information</td><td>Name</td><td>Zbigniew Kulesza</td><td>Gender</td><td>Male</td><td rowspan="3">  </td></tr>
<tr><td>Academic Title</td><td colspan="3">Associate Professor</td></tr>
<tr><td>College</td><td colspan="3">Bialystok University of Technology</td></tr>
<tr><td>Discipline</td><td colspan="4">automatic control and robotics</td></tr>
<tr><td>Email</td><td colspan="4">z.kulesza@pb.edu.pl</td></tr>
<tr><td></td><td>Mail Add.</td><td colspan="4">Wiejska 45D, 15-351 Bialystok, Poland</td></tr>
<tr><td>Educational Background</td><td colspan="5">Education
1990-1995, Faculty of Mechanical Engineering, Bialystok University of Technology, Poland
1992-1994, Inter-Department Pedagogic School, Bialystok University of Technology, Poland
Scientific degrees
DSc 2014, Faculty of Mechanical Engineering and Robotics, AGH University of Science and Technology, Poland, in the field of automatic control and robotics,
PhD 2003, Faculty of Mechatronics, Warsaw University of Technology, Poland in the field of machine design and maintenance,
MSc, Eng. 1995, Faculty of Mechanical Engineering, Bialystok University of Technology, Poland, in the field of automation and robotization of industrial processes,</td></tr>
<tr><td>Working Experience</td><td colspan="5">Bialystok University of Technology, Bialystok, Poland
2019 - present Associate Professor, Department of Automatic Control and Robotics, Faculty of Electrical Engineering
2016-2019 Vice-Dean for Cooperation, Faculty of Mechanical Engineering,
2013-2016 Vice-Head of Department, Department of Automatic Control and Robotics, Faculty of Mechanical Engineering
2015-2019 Associate Professor, Department of Automatic Control and Robotics, Faculty of Mechanical Engineering
2009-2012 Head of the Didactic Team for the Automatic Control and Robotics Studies, Department of Automatic Control and Robotics, Faculty of Mechanical Engineering,
2008-2009 Vice-Head of Department, Department of Automatic Control and Robotics, Faculty of Mechanical Engineering
2004-2015 Assistant Professor, Department of Automatic Control and Robotics, Faculty of Mechanical Engineering
1995-2004 Assistant, Department of Automatic Control and Robotics, Faculty of Mechanical Engineering
1994-1995 Trainee Assistant, Department of Automatic Control and Robotics, Faculty of Mechanical Engineering
Agrobusiness University, Lomza, Poland
1999-2009 Assistant, Assistant Professor, Department of Computer Science
Higher School of Computer Science in Business and Administration, Bialystok, Poland
1999-2005 Assistant, Assistant Professor, Department of Computer Science
ETOB Ltd., Bialystok, Poland
1995-2004 Database programmer, network and systems engineer</td></tr>
<tr><td>Research Interests</td><td colspan="5">dynamics and control of robot manipulators and mobile robots
rotordynamics
diagnostics of rotating machines
parametric and nonlinear vibrations
designing and programming of real time control systems
modeling and simulation of pneumatic brake systems</td></tr>
<tr><td>Major Publications*</td><td colspan="5">[1] Grądzki R., Lindstedt P. Bartoszewicz B., Kulesza Z., 2020, Assessment of rotor blades stationarity condition based on differences in phase shifts. Engineering Failure Analysis, 118, 1-12.
[2] Kulesza Z., Ołdziej D., 2020, Dynamic characteristics of a rope with a winder for powering UAV. In: 15th International Conference: Mechatronic Systems and Materials MSM'2020 / Kulesza Zbigniew [i in.] (red.), 2020.
[3] Gradzki R., Kulesza Z., Bartoszewicz B., 2019, Method of shaft crack detection based on squared gain of vibration amplitude. Nonlinear Dynamics, DOI: 10.1007/s11071-019-05221-0.
[4] Gradzki R., Lindstedt P., Kulesza Z., Bartoszewicz B., 2018, Rotor blades diagnosis method based on differences in phase shifts, Shock and Vibration, 2018, article ID 9134607, DOI: 10.1155/2018/9134607.
[5] Czajkowski M., Bartoszewicz B., Kulesza Z., 2017, Modal analysis of rotor with a cracked shaft, Journal of Vibroengineering, 19(1), 150-159.
[6] Uszynski S., Ambroziak L., 2018, Kondratiuk M., Kulesza Z., Air consumption analysis in compressed air</td></tr>
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	powered vehicles, In: Proceedings of the 13rd International Conference on Methods and Models in Automation and Robotics, MMAR'2018, Miedzyzdroje, Poland, August 27-30. [7] Kulesza Z., Trochimczuk R., 2017, Dynamics of multibody surgical robotic single incision laparoscopic surgery tool, In: Proceedings of the 23rd International Conference Engineering Mechanics'2017, Svratka, Czech Republic, May 15-18, 2017. [8] Kulesza Z., Sawicki J. T., 2016, Parametrically induced damping in a cracked rotor, ASME Journal of Gas Turbines and Power, 139(1), 012505. [9] Tomczyk L., Kulesza Z., 2016, A method of prioritizing victims of a mass casualty event for managing medical rescue operations, Control and Cybernetics, 45(3), 355-369. [10] Kulesza Z., Huscio T., 2016, Influence of load conditions in membrane spring-loaded cylinder on dynamic characteristics of pneumatic brake system, In: Proceedings of the 15th International Scientific Conference: Engineering for Rural Development, Jelgava, Latvia, May 25-27. [11] Kulesza Z., Sawicki J. T., 2016, Parametrically induced damping in a cracked rotor, In: Proceedings of ASME Turbo Expo 2016: Turbomachinery Technical Conference and Exposition GT2016, Seoul, South Korea, June 13-17.
Research Projects*	2017-2020 Head of the Steering Committee and Research Expert at the National Center for Research and Development of Poland (NCBR) grant: "Autonomous vessel with air look", Consortium of: Bialystok University of Technology, Foundation for Safety of Navigation and Environment Protection, Sup4Nav Ltd., UpLogic Ltd. 2020-2023 Director of the University Project No WZ/WE-IA/4/2020 on "Dynamics, control and autonomy of service and industrial robots", Department of Automatic Control and Robotics, Faculty of Electrical Engineering, Bialystok University of Technology.
Professional Membership	American Society of Mechanical Engineers, ASME, since 2012. Association of Polish Mechanical Engineers and Technicians, SIMP, since 2008. Polish Society of Theoretical and Applied Electrical Engineering, PTETiS, since 2020.
Potential Research Projects**	New diagnostic methods for rotating machines failure detection Dynamics and control of manipulators and mobile robots Real time control systems for robotics

* 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.