

Curriculum Vitae



1. Family name, first name, and title:
Miatluk Kanstantsin, PhD, assistant professor (*pol.*, adiunkt).
2. Place of work (address, telephone and fax numbers, e-mail:
Bialystok University of Technology, Mechanical Engineering Faculty, Department of Automatic Control and Robotics, Wiejska, 45C, Bialystok, 15-351, Poland.
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3 Brief statement of scientific career, posts held, research activities, etc.:

- a) Graduate of the Belarusian State Technical University (Robotics Department), Minsk, Republic of Belarus, (1988). Speciality - robotics.
- b) Researcher, Institute of Engineering Cybernetics of Belarus Academy of Sciences, (1986-1990), head of a research group of Hierarchical Systems Laboratory (since 1990) and Institute of Mathematics and Cybernetics (since 1996), Minsk, Republic of Belarus.
- c) Lecturer (since 2001) and assistant professor (since 2006 till now) in Bialystok University of Technology, Department of Automatic Control and Robotics, Poland.
- d) Research professor – postdoctoral research, Kyung Hee University, School of Advanced Technologies, South Korea, (20.05.2006-20.11.2006).
- e) Visiting professor, Kyung Hee University, School of Engineering, South Korea, (15.08.2008-01.12.2008, 15.08.2010-01.10.2010).
- f) Visiting professor, University of Southern Denmark, The Maersk Mc-Kinney Moller Institute, CARO group, Odense, Denmark (09.-10.2013).

PhD in Computer Science, Institute of Mathematics and Cybernetics, Minsk, Belarus (2003).

PhD in Automation and Robotics, AGH University of Science and Technology, Krakow, Poland (2006).

Participation in EU projects. ICIMS-NoE; DYCOMANS, EU FP7 projects: XPERIENCE – grant no. 270273, ACAT – grant no. 600578 (2012-2016);

Participation in "Research and development in a knowledge-based economy" project POKL.04.02.00-00-020/09, co-financed from EU, priority IV, activity 4.2, (2012).

Participation in other International projects. Korea Science and Engineering Foundation (KOSEF) grants funded by the Korea government (MEST) No. R01-2006-000-11209-0 (2006) and No. R01-2008-000-20352-0 (2008,2010) (South Korea).

IEEE member (2012, 2015, 2018).

Mobiligence Program Committee member, Japan (2009).

Member of Editorial Board of Int. Journal of Behavioral Robotics, Paladyn (from 2017).

Reviewer of 4 PhD thesis – SDU, Odense, Denmark, and 1 PhD thesis – ULPGC, Spain.

Participation at numerous International conferences in USA, European Countries, South Korea, Japan organized by IEEE, IFAC, Design Society, SICE, ICASE and other societies.

4. Involvement in robotics projects with industry:
Participation in joint robot projects RO-210.0610/25/2013 U/WM/7/2013 and U/WM/7/2014 with PROMOTECH enterprise, Bialystok, Poland (2013-2014), results of the work have been implemented in PROMOTECH enterprise in 2015.
5. Field of specialization in brief: Automation and Robotics, Systems Science, Computer Science.
6. Teaching record: Automation, Control theory, Mechatronic design, Numerical methods, etc.
7. Selected papers published after 2006 (after PhD defense):
 1. Novikava S., **Miatliuk K.** Hierarchical system of natural grammars and process of innovations exchange in polylingual fields, *Kybernetes*, Emerald, Vol. 36, (2007), Issue 5/6, pp. 736-748 (*JCR journal*)
 2. **Miatliuk K.**, Y.H. Kim, K. Kim, Human motion design in hierarchical space, *Kybernetes*, Emerald, Vol.38, No.9, (2009), pp.1532-1540. (*JCR journal*)
 3. **Miatliuk K.**, Kim Y. H., Siemieniako F.: Informational Basis for Mechatronic Systems Design, *Proc. of the 3rd Asia Int. Symp. on Mechatronics: AISM'2008*, Sapporo, Japan, 2008, p. 538-543.
 4. **Miatliuk K.**, Y.H. Kim, K. Kim: Motion Control Based on the Coordination Method of Hierarchical Systems, *Journal of Vibroengineering*, Vol. 11, No. 3, (2009), pp.523-529. (*JCR journal*)
 5. **Miatliuk K.**, Coordination Technology in Design of Biologically Inspired Robot, *Machine Dynamics Problems*, Vol.33, No. 3, (2009), pp.70-78.
 6. **Miatliuk K.**, Y.H. Kim, K. Kim, F. Siemieniako: Use of hierarchical system technology in mechatronic design, *Mechatronics*, Vol. 20, No.2, Elsevier, (2010), pp. 335-339. (*JCR journal*)
 7. **Miatliuk K.**, Siemieniako F.: Hierarchical Systems Technology in Design of Walking Robot, *Int. J. of Applied Mechanics and Engineering*, Vol.15, nr 3, (2010), pp. 793-797.
 8. **Miatliuk K.**, Siemieniako F.: *Dynamics of coordination strategies of hierarchical systems*, 11th IEEE Int. Carpathian Control Conference ICC'2010, Eger, Hungary, (2010), pp. 497-501.
 9. Popovic M., Kootstra G., Jørgensen J. A., Kuklinski K., **Miatliuk K.**, Kragic D., Kruger N.: Enabling grasping of unknown objects through a synergistic use of edge and surface information, *Int. Journal of Robotics Research*, SAGE, 31(10), (2012), pp. 1190–1213. (*JCR journal*)
 10. **Miatliuk K.**, M. Diaz-Cabrera, Application of Hierarchical Systems Technology in Design and Testing of Circuit Boards, *Lecture Notes in Computer Science*, Springer, Vol. 8112, (2013), pp. 521-526.
 11. Diaz-Cabrera M., J. Cabrera-Gómez, R. A. Colomo, **Miatliuk K.**, Photogrammetric Analysis of Images Acquired by an UAV, *Lecture Notes in Computer Science*, Springer, Vol. 8112, (2013), pp. 109-116.
 12. **Miatliuk K.**, Kim Y.H.: Application of Hierarchical Systems Technology in Conceptual Design of Biomechatronic System, *Adv. in Intelligent Systems and Computing*, Vol.240, Springer (2014), pp 77-86.

13. **Miatliuk K.**, Holewa K., Nawrocka A.: Conceptual Design of BCI in the Formal Basis of Hierarchical System, *IEEE 15th Int. Carpathian Control Conference: ICC'2014*, Czech Rep., (2014), pp. 336-341.
14. Wolniakowski A., **Miatliuk K.**, Krüger N., Rytz J.A.: Automatic evaluation of task-focused parallel jaw gripper design, *Lecture Notes in Artificial Intelligence*, Springer, Vol. 8810 (2014), pp. 77-86.
15. Wolniakowski A., Koziol P., **Miatliuk K.**: Generating trajectory for 5 DoF serial link CNC machine with kinematic constraints, *IEEE 15th Int. Carpathian Control Conf.*, Czech Rep. (2014), pp. 689-694.
16. Wolniakowski A., J.A. Jorgensen, **K. Miatliuk**, H.G. Petersen, N. Kruger, Task and context sensitive optimization of gripper design using dynamic grasp simulation, *20th Int. IEEE Conf. on Methods and Models in Automation and Robotics*, Poland, (2015), pp. 29-34.
17. Kuklinski K., Beck R., Krüger N., **Miatliuk K.**, Kirstein F., Sølvason D., et al.: A novel tele-operation device allowing for dynamic switching between control points during learning from demonstration, *10th IEEE Int. Workshop on Robot Motion and Control: RoMoCo'15*, Poznan (2015), pp. 314-318.
18. **Miatliuk K.**, Mystkowski A., Realization of coordination technology of HS in design of active magnetic bearings system, *J. of Theoretical and Applied Mechanics*, 53, 3, (2015), pp. 711-722. . (*JCR journal*)
19. **Miatliuk K.**, Conceptual Model in the Formal Basis of Hierarchical Systems for Mechatronic Design, *Cybernetics and Systems*, Taylor& Francis, Vol. 46, Issue 8, (2015), pp.666-680. (*JCR journal*)
20. **Miatliuk K.**, Pascault D.: Control of Stewart parallel structure with concurrent learning, *12th Int. Conf. Mechatronic Systems and Materials*, Bialystok, Poland, (2016), p.91.
21. **Miatliuk K.**: Conceptual model for design and control of MCM machine, *17th IEEE Int. Carpathian Control Conference*, Slovakia, (2016), pp. 490-493.
22. Wolniakowski A., **Miatliuk K.**, Gosiewski Z., Kruger N., Petersen H., Ritz J.: Task and context sensitive gripper design learning using dynamic grasp simulation, *J. of Intelligent and Robotic Systems*, Springer, Vol. 87, Issue 1, (2017), pp. 15-42. (*JCR journal*)
23. **Miatliuk.K.**: Conceptual Design of Mechatronic Systems, WPB, Bialystok, Poland, 2017.
24. Wolniakowski A., Gams A., **Miatliuk K.**, Krüger N.: Compensating pose uncertainties through appropriate gripper finger cutouts, *Acta Mechanica et Automatica*, Vol. 12(1), (2018), pp.78-83.
25. Valsamos C., Wolniakowski A., **Miatliuk K.**, Moulianitis V.C., Minimization of joint velocities during the execution of a robotic task by 6 dof articulated manipulator, *Advances in Service and Industrial Robotics, Mechanisms and Machine Science*, Springer, Vol. 67, (2018), pp. 368-375.

There are 65 publications totally after 2006 (after PhD defense).