

Applicant: doc. Ing. Jan Faigl, Ph.D.

Personal Information

Researcher unique identifier (Researcher ID): E-8685-2013

Date of birth: May 5, 1979

URL for web site: <http://robotics.fel.cvut.cz/jf>

Education

- 2010 PhD in Electrical Engineering and Information Technology, branch Artificial Intelligence and Biocybernetics, Faculty of Electrical Engineering (FEE), Czech Technical University (CTU), Czech Republic
- 2003 Ing. (~MSc.) in Electrical Engineering, branch Technical Cybernetics, FEE, CTU

Current Positions

- 2015–present Associate Professor – Department of Computer Science, FEE, CTU

Previous Positions

- 2013–2014 Assistant Professor – Department of Computer Science, FEE, CTU
- 2010–2012 Assistant Professor – Department of Cybernetics, FEE, CTU
- 2003–2012 Research fellow – Gerstner Laboratory / Intelligent and Mobile Robotics Group, Department of Cybernetics, CTU
- 2011 Research fellow – Center for Applied Cybernetics, CTU
- 2003–2006 System Analyst and Programmer (systems for railway safety and diagnostics) – ProTyS, Inc., Czech Republic

Fellowships and Awards

- 2017 Member of the winner team for the Mohamed Bin Zayed International Robotics Challenge (MBZIRC) in Challenge 3 and the 2nd place in Challenge 1
- 2016 Best Poster Award for the Workshop on Self-Organizing Maps (WSOM'16), for a paper “*On Self-Organizing Map and Rapidly-exploring Random Graph in Multi-Goal Planning*”
- 2014 Best Poster Award for the Workshop on Self-Organizing Maps (WSOM'14), for a join paper “*Organizing Map for the Prize-Collecting Traveling Salesman Problem*” with G. Hollinger
- 2013 Fulbright Scholarship award for six months research stay at the University of Southern California, Robotic Embedded System Laboratory (RESL), Prof. Gaurav Sukhatme.
- 2011 1 month research stay at University of Pennsylvania, GRASP laboratory, Prof. Vijay Kumar
- 2011 Antonin Svoboda award from Czech Society for Cybernetics and Informatics for the best Ph.D. dissertation in Czech Republic
- 2010 Best Paper Award for the Symposium Theory and Applications of Artificial Intelligence (20th European Meetings on Cybernetics and Systems Research)
- 2008, 2009 1st place in RoboTour outdoor delivery challenge (project manager) <http://robotika.cz/competitions/robotour/en>

Projects (Principal Investigator)

- 2016–2018 *Efficient Information Gathering with Dubins Vehicles in Persistent Monitoring and Surveillance Missions* – Czech Science Foundation, Standard Research Project No. 16-24206S.
- 2015–2017 *Adaptive Informative Path Planning in Autonomous Data Collection in Dynamic Unstructured Environments* – Czech Science Foundation, Junior Research Project No. 15-09600Y.
- 2014–2015 *Multi-Agent Coordination in Robotic Exploration and Reconnaissance Missions*, Ministry of Education, Czech Republic, program MOBILITY, Project No. 7AMB14FR019
- 2013–2015 *Self-Organizing Maps for Multi-Goal Path Planning Tasks* – Czech Science Foundation, Post-doc Research Project No. GAČR 13-18316P
- 2012 *Development of Laboratory for Outdoor Robotics* – Ministry of Education, Czech Republic, Project No. FRVŠ 2430/Aa, (co-PI with L. Přebušil)
- 2010–2011 *Uncertainty of Mobile Robot Localization in Cooperative Inspection Tasks* – Grant Agency of Czech Technical University, Project No. SGS10/185/OHK3/2T/13
- 2005 *Cooperative Planning in Multiple Robotics Systems* – Grant Agency of Czech Technical University, Project No. CTU 0505413
- 2005 *Formalization of an Autonomous Decision System for Cooperative Robots* – Ministry of Education, Czech Republic, Project No. FRVŠ 1606/G1

Projects (Team Member)

- 2011–2012 COLOS – *Control and Localization for Swarms of Low-cost Autonomous Robots*, Ministry of Education, Czech Republic, Project No. LH11053
- 2006–2011 SyRoTek – *Tele-education System for Robotics* – Ministry of Education, Czech Republic, Project No. 2C06005, <http://syrotek.felk.cvut.cz>
- 2006 ECOLEAD – *European Collaborative networked Organizations LEADership initiative* – EU 6FP Integrated Project No. IST-1-506958
- 2003–2005 PeLoTe – *Building Presence through Localization for Hybrid Telematic Systems* – EU 5FP Project No. IST-2001-38873

Professional Service

- 2017 *Program Committee Member* – International Joint Conference on Neural Networks (IJCNN'17); IEEE International Conference on Systems, Man, and Cybernetics (SMC'17); IEEE International Conference on Autonomous Robot Systems and Competitions (ICARSC'17);
- 2016–*present* Guest editor of the special issue on “*Online decision making in Multi-Robot Coordination*” in *Autonomous Robots* journal
- 2016 *Program Committee Member* – IJCNN'16; Advances in Self-Organizing Maps (WSOM); ICARSC'16; Military Advanced Robotic Systems Conference;
- 2015 *Program Committee Member* – Robotics: Science and Systems; IJCNN'15; ICARSC'15;
- 2014 *Program Committee Member* – 28th AAI Conference on Artificial Intelligence (AAAI-14); IEEE International Conference on Systems, Man, and Cybernetics (SMC2014)
- 2014 *Program Chair* – ECAI'14 Workshop on Multi-Agent Coordination in Robotic Exploration
- 2013 *Program Committee Member* – IEEE International Conference on Systems, Man, and Cybernetics (SMC2013), special session on Cybernetics, UK
- 2012–*present* *Reviewer* – Applied Mathematics and Computation; Journal of The Franklin Institute Engineering and Applied Mathematics; IEEE Transactions on Neural Networks and Learning Systems IEEE International Conference on Robotics and Autonomous (ICRA)
- 2011–*present* *Reviewer* – Autonomous Robots
- 2009–*present* *Reviewer* – Journal of Intelligent and Robotic System; IEEE Transactions on Systems, Man, and Cybernetics - Part C: Applications & Reviews ; IEEE RSJ/International Conference on Intelligent Robots and Systems (IROS)

Supervision of Graduate students

- 2008–*present* 11 Master students and 4 phd student – FEE, CTU
3 students received Dean award for the best master thesis:
- Lenka Mudrová, *Entropy-Like Estimation Technique in Mobile Robot Localization*, 2013, dean award, now phd student at University of Birmingham, UK
 - Jan Mačák, *Multi-Robot Cooperative Inspection Task*, 2009, dean award, now phd student at the Center for Machine Perception, FEE, CTU
 - Vojtěch Vonásek, *Trajectory Generation for Cooperative Inspection Task*, 2008, dean award, now phd student at the Gerstner Laboratory, FEE, CTU
- 2008–2011 10 Bachelor Students – Department of Cybernetics, FEE, CTU

Teaching Activities

- 2016–*present* Lecturer – *Procedural Programming, C Programming Language*, FEE, CTU
- 2014–2016 Lecturer – *Programming 1, Programming 2*, FEE, CTU
- 2010–2012 Assistant – *Team work and its organization*, FEE, CTU
- 2009–2010 Assistant – *Robots*, FEE, CTU
- 2005–2010 Assistant, Lecturer (2008, 2010) – *Programming Techniques*, FEE, CTU
- 2003–2006 Assistant, Lecturer (2006) – *Programming Methodologies*, FEE, CTU
- 2003–2010 Assistant – *System Reliability and Total Quality Management*, FEE, CTU

Organization of Scientific Meetings

- 2016 Chair of Workshop on On-line decision-making in multi-robot coordination in conjunction with RSS 2016, Ann Arbor, USA, <https://robotics.fel.cvut.cz/demur16>
- 2015 Chair of Workshop on On-line decision-making in multi-robot coordination in conjunction with IROS 2015, ermany, <https://robotics.fel.cvut.cz/demur15>
- 2014 Chair of Workshop on Multi-Agent Coordination in Robotic Exploration in conjunction of European Conference on Artificial Intelligence (ECAI), Czech Republic, <http://robotics.fel.cvut.cz/macorex14>