

## doc. Ing. Jan Faigl, Ph.D.

### Personal Information

Family name, First name: **Faigl, Jan**

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

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

Google Scholar: [https://scholar.google.cz/citations?user=-finD\\_sAAAAJ&hl=en](https://scholar.google.cz/citations?user=-finD_sAAAAJ&hl=en)

### 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

- 2018 Finalist of the Best Student Paper Award RSS 2018, Pittsburgh, Pennsylvania, USA, for the paper of the supervised phd student Petr Váňa
- 2017 Winner team of Challenge No. 3 in Mohamed Bin Zayed International Robotics Challenge (MBZIRC), Abu Dhabi, UAE, <http://mrs.felk.cvut.cz/projects/mbzirc>
- 2017 IJCNN 2017 Best Poster Honorable Mention, Anchorage, Alaska, USA
- 2016 Best Poster Award for the Workshop on Self-Organizing Maps (WSOM'16), for the 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 the 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)

- 2019–2021 Multi-Robot Persistent Monitoring of Dynamic Environments, Czech Science Foundation (GA ČR), Project No. 19-20238S
- 2018–2020 Robotic Lifelong Learning of Multi-legged Robot Locomotion Control in Autonomous Data Collection Missions, Czech Science Foundation (GA ČR), Project No. GA18-18858S
- 2018–2020 Hybrid navigation system for autonomous vehicles in environment with denied GNSS services, Technology Agency of the Czech Republic (TA ČR), Project No. TH03010362
- 2016–2018 Efficient Information Gathering with Dubins Vehicles in Persistent Monitoring and Surveillance Missions – Czech Science Foundation (GA ČR), Project No. 16-24206S
- 2015–2017 Adaptive Informative Path Planning in Autonomous Data Collection in Dynamic Unstructured Environments – Czech Science Foundation (GA ČR), 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, collaborative project with INRIA Nancy and INSA Lyon, France
- 2013–2015 Self-Organizing Maps for Multi-Goal Path Planning Tasks – Czech Science Foundation (GA ČR), 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. Přeučil)
- 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 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 – <i>Control and Localization for Swarms of Low-cost Autonomous Robots</i> , Ministry of Education, Czech Republic, Project No. LH11053
2006–2011	SyRoTek – <i>Tele-education System for Robotics</i> – Ministry of Education, Czech Republic, Project No. 2C06005, <a href="http://syrotek.felk.cvut.cz">http://syrotek.felk.cvut.cz</a>
2006	ECOLEAD – <i>European Collaborative networked Organizations LEADership initiative</i> – EU 6FP Integrated Project No. IST-1-506958
2003–2005	PeLoTe – <i>Building Presence through Localization for Hybrid Telematic Systems</i> – EU 5FP Project No. IST-2001-38873
Editor	Guest editor of the <i>Autonomous Robots</i> journal for the special issue on <i>Online Decision Making in Multi-Robot Coordination</i>
Program Committee Member	IEEE IRC 2019, IJCNN 2018, AAMAS 2018, AAI 2018, ACM SAC 2018, ICARSC 2018, MESAS 2018, WCIDM 2018, MRS 2017, ICARSC 2017, IJCAI 2017, IJCNN 2017, SMC 2017, MESAS 2017, WSOM+ 2017, WCIDM 2017, ACM SAC 2016, ICARSC 2016, WCIDM 2016, WSOM 2016, ACM SAC 2015, ICARSC 2015, IJCNN 2015, ITAT 2015, RSS 2015, WCIDM 2015, AAI 2014, SMC 2014, SMC 2013
Reviewer for Journals	Adaptive Behavior; Applied Mathematics and Computation; Applied Soft Computing; Artificial Intelligence Review; Autonomous Robots; Computer Communications; IEEE Intelligent Systems; IEEE Transactions on Cybernetics; IEEE Transactions on Neural Networks and Learning Systems; IEEE Transactions on Robotics; International Journal of Advanced Robotic Systems; International Journal of Applied Mathematics and Computer Science; International Journal of Production Research; International Journal of Robotics Research; Journal of Field Robotics; Journal of Intelligent and Robotic Systems; Neurocomputing; Robotics and Autonomous Systems; Sensors; Swarm and Evolutionary Computation
Reviewer for Conferences	ECAI; IEEE International Conference on Robotics and Autonomous (ICRA); IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS); Robotics: Science and Systems Conference (RSS)
Ph.D. Theses Reviewer (Committee Member)	Mihai Andries: <i>Object and human tracking and robot control through a load sensing floor</i> , Université de Lorraine, 2015; Lukas Klodt: <i>Coordination of Cooperative Multi-Robot Teams</i> , Technische Universität Darmstadt, 2017; Jacopo Banfi: <i>Multirobot Exploration of Communication-Restricted Environments</i> , Politecnico di Milano, 2017;

## Supervision of Graduate students

Present	5 Bachelor, 1 Master, and 6 PhD students – Dept. of Computer Science, FEE, CTU
2009–2018	10 Master and 17 Bachelor students (3 students received Dean award for the best master thesis, they finished phd at CTU and University of Birmingham, UK, 4 students received Dean award for the best bachelor thesis)

## Teaching Activities and Institutional Responsibilities (FEE, CTU)

Lecturer	<i>Artificial Intelligence in Robotics, Procedural Programming, C Programming Language, Programming in C</i> (2016–present); <i>Programming 1 and Programming 2</i> (2014–2015); <i>Programming Techniques</i> (2008, 2010); <i>Programming Methodologies</i> (2006)
Instructor	<i>Programming 1 and Programming 2</i> (2014–2014); <i>Team Work and its Organization</i> (2010–2012); <i>Robots</i> (2009–2010); <i>Programming Techniques</i> (2005–2010); <i>Programming Methodologies</i> (2003–2006); <i>System Reliability and Total Quality Management</i> (2003–2010)
2015–present	Member of the Board of bachelor and master study program – Open Informatics (OI) – “Otevřená informatika”; chair of the Software study branch/specialization
2016–present	Member of Academic Senate of FEE, CTU
2017–present	Member of the Board of doctoral study, branch 3708V017 – Air Traffic Control – “Provoz a řízení letecké dopravy” (since 03/2017)

## Organization of Scientific Meetings

2016	Chair of Workshop on On-line decision-making in multi-robot coordination in conjunction of the Robotics: Science and Systems Conference (RSS 2016), Ann Arbor, Michigan, USA <a href="http://robotics.fel.cvut.cz/demur16">http://robotics.fel.cvut.cz/demur16</a>
2015	Chair of Workshop on On-line decision-making in multi-robot coordination in conjunction of IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Germany <a href="http://robotics.fel.cvut.cz/demur15">http://robotics.fel.cvut.cz/demur15</a>
2014–2018	Chair of Student Conference on Planning in Artificial Intelligence and Robotics (PAIR) <a href="http://robotics.fel.cvut.cz/pair">http://robotics.fel.cvut.cz/pair</a>
2014	Chair of Workshop on Multi-Agent Coordination in Robotic Exploration in conjunction of ECAI 2014, Czech Republic, <a href="http://robotics.fel.cvut.cz/macorex14">http://robotics.fel.cvut.cz/macorex14</a>
2014	Chair of Workshop on Multi-Agent Coordination in Robotic Exploration in conjunction of European Conference on Artificial Intelligence (ECAI), Czech Republic, <a href="http://robotics.fel.cvut.cz/macorex14">http://robotics.fel.cvut.cz/macorex14</a>
2008	Organizing Committee of European Robotics Symposium (EUROS), Czech Republic <a href="http://www.action-m.com/euros2008">http://www.action-m.com/euros2008</a>