

## PERSONAL INFORMATION

**Tomáš Svoboda**

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Sex Male | Date of birth 09/04/1972 | Nationality Czech

## PERSONAL STATEMENT

**Researcher and Lecturer in Robotics and Autonomous Systems, Automotive, Computer Vision and Machine Learning**

## WORK EXPERIENCE

2017-PRESENT

**Head of the department**

Czech Technical University in Prague, Faculty of Electrical Engineering, Department of Cybernetics

2011-2017

**Deputy head of the department**

Czech Technical University in Prague, Faculty of Electrical Engineering, Department of Cybernetics

<http://cyber.felk.cvut.cz>

Since 2013 Associate Professor

- Responsible for organizing teaching activities at the department, around 50 courses
- Member of the Board of Open Informatics bachelor and master study program
- Guarantor/Director of EECS bachelor study program
- Faculty representative for relationship with Valeo Automotive
- Teaching in Computer Science and Robotics related courses
- Research work in Computer Science and Robotics
- Heading research and academic projects

Business or sector Research University

2003-2011

**Researcher, Assistant Professor**

Czech Technical University in Prague, Faculty of Electrical Engineering, Department of Cybernetics

- Teaching in Computer Science and Robotics related courses
- Research Work in Computer Science and Robotics
- Working/heading research projects

Business or sector Research University

2000-2003

**Post-Doc, Oberassistent**

Swiss Federal Institute of Technology, ETH Zurich, Department of Information Technology and Electrical Engineering, Computer Vision Lab, <https://www.vision.ee.ethz.ch/en/>

- Research work in Computer Science
- Advising bachelor, master and Ph.D. students
- Notable projects: [BlueC](#), STAR, Wearable

Business or sector Research University

## EDUCATION AND TRAINING

1995-2000

**Ph.D. in Artificial Intelligence and Biocybernetics**

PhD

Czech Technical University in Prague

Research stays during the study: 03-07/1996, INRIA Rhone-Alpes; 09-12/1998, TU Wien

1995-2000 **Master in Technical Cybernetics**

Ing.

Czech Technical University in Prague

Five years study program, graduated magna cum laude; 07-08/1994 summer intern at TU Delft

PERSONAL SKILLS

MOTHER TONGUE(S) Czech

OTHER LANGUAGE(S)

	UNDERSTANDING		SPEAKING		WRITING
	LISTENING	READING	SPOKEN INTERACTION	SPOKEN PRODUCTION	
English	B2	C1	B2	C1	C1
German	B1	B1	A2	A2	A2
French	A1	A2	A1	A1	A1

Replace with name of language certificate. Enter level if known.

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

COMMUNICATION SKILLS

- good communication skills gained through my experience as a university teacher

ORGANISATIONAL /  
MANAGERIAL SKILLS

- Head of the department 100+ people, 2011-2017 deputy responsible for organizing teaching activities, 50+ courses, responsible for organizing teaching since 1999, managed several transitions between study accreditations
- Head of the Vision for Robotics and Autonomous Vehicles research group ([VRAS](#))
- Leading several research teams - projects, including budgeting, proposing
- Leading large long-term academic projects related to teaching
- In age 18 the head of children canoe-tourist group, in age 20 the head of group association (around 10 children groups) responsible for organizing common events, including budgeting

JOB-RELATED SKILLS

- A solid publication record in Computer Vision and Autonomous Robotic, see the Appendix, h-index 27 in Google Scholar, <https://scholar.google.com/citations?hl=en&user=ec4ZOF0AAAAJ>
- Recently collaborating with automotive industry (assisted and autonomous driving)
- Reviewer for major scientific journals and top conferences.

DIGITAL COMPETENCE

SELF-ASSESSMENT				
INFORMATION PROCESSING	COMMUNICATION	CONTENT CREATION	SAFETY	PROBLEM SOLVING
PROFICIENT USER	PROFICIENT USER	PROFICIENT USER	INDEPENDENT USER	PROFICIENT USER

Levels: Basic user - Independent user - Proficient user  
[Digital competences - Self-assessment grid](#)

Replace with name of ICT-certificate(s)

- Good programming skills in various high-level languages, Python, Matlab, Perl
- Advanced in preparing presentation including on-line demos, programming, etc.
- Regular advanced user of the usual office suite
- Publishing using La(TeX)

OTHER SKILLS

DRIVING LICENCE A1, B

ADDITIONAL INFORMATION

## PUBLICATIONS

See the annex describing the publication and project activities.

## PROJECTS

Currently teaching the following courses: [Problem solving and Games](#), [Cybernetics and Artificial Intelligence](#)

## CITATIONS

## COURSES

Co-leading CTU-CRAS robotic team, winner of the DARPA SubT Challenge – Tunnel Circuit among non-DARPA teams 09/2019

## ANNEXES

## SELECTED PUBLICATIONS

Recent publications:

Vladimír Kubelka, Michal Reinstein, and Tomáš Svoboda. Tracked robot odometry for obstacle traversal in sensory deprived environment. *IEEE/ASME Transactions on Mechatronics*, 24(6):2745–2755, Dec 2019.

Tomáš Petříček, Vojtěch Šalanský, Karel Zimmermann, and Tomáš Svoboda. Simultaneous exploration and segmentation for search and rescue. *Journal of Field Robotics*, 36(4):696–709, June 2019

Martin Pecka, Karel Zimmermann, Matěj Petrлік, and Tomáš Svoboda. Data-driven policy transfer with imprecise perception simulation. *IEEE Robotics and Automation Letters*, 3(4):3916–3921, 2018

Martin Pecka, Karel Zimmermann, Michal Reinstein, and Tomáš Svoboda. Controlling robot morphology from incomplete measurements. *IEEE Trans. Industrial Electronics*, 64(2):1773–1782, 2017.

Karel Zimmermann, Tomáš Petříček, Vojtěch Šalanský, and Tomáš Svoboda. Learning for active 3d mapping. In 2017 IEEE International Conference on Computer Vision (ICCV), pages 1548–1556, Oct 2017

Martin Pecka, Karel Zimmermann, and Tomáš Svoboda. Fast simulation of vehicles with non-deformable tracks. In 2017 IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS 2017

in Prague Dec 9, 2019.  
Tomáš Svoboda