

# Michael Šebek CV

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Michael Šebek is a Professor of Cybernetics at the Czech Technical University in Prague. He is the Head of the successful Department of Control Engineering at the Faculty of Electrical Engineering. In addition, he is the Head of the Cyberphysical Systems Department at the Czech Institute of Robotics and Cybernetics, and the CEO of PolyX Ltd., producer of software for control systems design.

He graduated with honors from the Faculty of Electrical Engineering of the Czech Technical University in Prague and received a Ph.D. in the Academy of Sciences. For a long time, he worked there at the Institute of Information Theory and Automation. He was also with Twente Universiteit in Enschede, Netherlands, and at with the famous ETH in Zurich. He was on leave at several other world schools in Toronto, Glasgow, and Padua.

The Department, which he successfully leads, is one of the best at CTU, in his field and Europe, as confirmed by various independent evaluations. Three-quarters of the Department revenues comes from industrial and research projects; successful teaching is motivated mainly by the interest in students. The Department employs foreigners from all over the world (last year it was a third) and the working language is English. As a teacher, he also employs top engineers from companies (Honeywell, Porsche, Siemens), leading academics and professors from abroad (Toulouse, Southampton). An open yet demanding creative environment attracts young people from other disciplines as well.

Michael Sebek is a renowned and often quoted expert in automatic control theory and algorithms, most recently dealing with networked systems, multi-agent systems, formations of robots, autonomous vehicles, aircraft or satellites as well as cybernetic-physical systems. He published several hundred research articles mostly in leading journal or presented at prestigious conferences. With a Dutch colleague, he founded PolyX, a company that has developed successful software for polynomial applications with thousands of installations around the world.

He has led numerous European, NATO and other international as well as domestic research projects. He coordinated the European Network of Excellence for Industrial Applications of Polynomial Methods, bringing together many leading companies and universities across Europe. He guided contractual research of the department for Honeywell, Porsche, Volkswagen, ŠKODA Auto, and other corporations.

He is an enthusiastic, demanding and popular educator. He regularly teaches automatic control in CTU, various courses in Germany and Switzerland, and lectures all over the world. He is co-author and guarantor of the admired Cybernetics and Robotics selection program. He has been involved in establishing and running the European SpaceMaster program, whose students attend each semester at another European university. He has trained dozens of Ph.D. students who are now successful in companies and universities throughout Europe and already educated ten other Ph.D. students. He leads a European Industrial Doctorate project, where Ph.D. students work alternately at the department and in the Belgian company Siemens Industrial Software.

Michael Sebek founded and runs the popular RoboRace Competition, where annually compete with children's teams their original Lego-robots. First, over 160 high schools teams from the whole of the country took part, then, over 70 primary schools teams. An international round is also being prepared to compete with students from Stuttgart, Germany.

He works in the committees of several international societies. In the International Federation of Automatic Control, he was a Council Member for six years; In the IEEE CSS, and has worked for many years at in the Editorial Board for Conferences. He was the General Manager of the 16th IFAC World Congress in Prague in 2005, which was then the largest and most successful event in the field; He and participated in many other conferences.

He is a member of the Scientific Boards of the several schools and chairs of the Technical Science and Informatics Panel for the selection of the excellent results of the Czech Government Scientific Council. He received several prizes and had been awarded the Werner von Siemens Award for the Best Educator. He enjoys writing blogs and discussing on Facebook and other forums, particularly on science, research, universities and their management, the impact of technological advances on the world, and the impact of automation, robotization, digitization and artificial intelligence on society. All others see [www.michaelsebek.cz](http://www.michaelsebek.cz)