

08:00 Registration

Invited lecture

Room: BC-300

9:00

**Roberta initiative.***Dr. Ansgar Bredenfeld, Thorsten Leimbach, Fraunhofer IAIS, Germany.***Break**

10:00 – 12:00

**Session 1A: Robotics in Education**

Chair: Peter Hubinsky

Room: BC-300

10:00

*Lessons learnt with LEGO Mindstorms: from beginner to teaching robotics.*  
*Martina Kabátová, Janka Pekárová, Slovakia*

10:20

*Centrobot Portal for Robotics Educational Course Material.*  
*Richard Balogh, Adrian Dabrowski, Walter Hammerl, Alexander Hofmann, Pavel Petrovič, Ján Rajniček, Austria and Slovakia***Coffee break**

10:40

*How to Make a Good System from Imperfect Components.*  
*Andrej Lúčny, Slovakia*

11:00

*Some didactic problems of teaching robotics.*  
*Anton Vitko, Ladislav Jurišica, Andrej Babinec, František Duchoň, Marian Klúčik, Slovakia*

11:20

*Utilizing Lego Mindstorms as a Teaching Platform for Industrial Automation*  
*Carolyn Oates, Alois Zotl, Austria*

11:40

*SyRoTek - A Robotic System for Education*  
*Jan Faiigl, Jan Chudoba, Karel Košnar, Miroslav Kulich, Martin Saska, Libor Přeučil, Czech Republic***Session 1B: Robotic Contests**

Chair: Alexander Hofmann

Room: BC-150

10:00

*The Regional Center Concept for RoboCupJunior in Austria*  
*Alexander Hofmann, Gerald Steinbauer, Austria*

10:20

*Eurobot Junior and Starter - A Comparison of Two Approaches for Robotic Contest Organization*  
*David Obdržálek, Czech Republic***Coffee break**

10:40

*Robotour - robotika.cz outdoor delivery challenge*  
*Jiří Iša, Martin Dlouhý, Czech Republic*

11:00

*Visual Navigation System for RoboTour Competition*  
*Tomáš Krajník, Jan Faiigl, Vojtěch Vonásek, Hana Szücsová, Ondřej Fišer, Libor Přeučil, Czech Republic*

11:20

*RoboTour solution as a learned behavior based on Artificial Neural Networks*  
*Miroslav Nadhajský, Pavel Petrovič, Slovakia*

11:40

*European Land Robot Trial (ELROB) – Towards a Realistic Benchmark for Outdoor Robotics*  
*Frank E. Schneider, Dennis Wildermuth, Bernd Brüggemann, Timo Röhling, Germany*

12:00

**Lunch**

12:00

Invited lecture

Room: BC-300

13:00

**Robotic training centre ABB in Trnava.***Peter Ducháček, ABB - branch Slovakia***Break**

14:00 – 17:00

**Session 2A: Robotics in Education**

Chair: Anton Vitko

Room: BC-300

14:00

*Mobile Robotics at FEE CTU*  
*Jan Faiigl, Tomáš Krajník, Karel Košnar, Hana Szücsová, Jan Chudoba, Vladimír Grimmer, Libor Přeučil, Czech Republic*

14:20

*Building robots as a tool to motivate students into an engineering education*  
*Francis Wyffels, Michiel Hermans, Benjamin Schrauwen, Belgium*

14:40

*An Experience for Teaching Humanoid Robotics in Computer Engineering Studies*  
*Martin Mellado, Spain***Coffee break**

15:00

*Autonomous Guided Vehicles Applied to Industrial Engineering and Management Studies*  
*André Dias, Nuno Dias, Daniela Campos, Hugo Ferreira, Portugal*

15:20

*Subject "Robots" at the CTU FEE in Prague - using LEGO robots to teach the fundamental of feedback control.*  
*Martin Hlinovský, Tomáš Polcar, Czech Republic*

15:40

*Arduino Etoys: a programming platform for Arduino on Physical Etoys*  
*Lic Gonzalo Esteban Zabala, Ricardo Morán, Sebastián Blanco, Argentina*

16:00

**Coffee break****Session 2B: Hardware platforms**

Chair: Peter Hubinsky

Room: BC-150

14:00

*EDURO - mobile robotic platform for education*  
*Martin Dlouhý, Jan Roubíček, Tomáš Roubíček, Czech Republic*

14:20

*Educational Robotic Platform based on Arduino*  
*Richard Balogh, Slovakia*

14:40

*Mono Axial Vehicle platform for education purposes*  
*Jozef Rodina, Peter Hubinsky, Slovakia***Coffee break**

15:00

*Mobile robot Khepera III. Programming for MATLAB/Simulink Environment*  
*Maciej Garbacz, Mieczysław Zaczek, Poland*

15:20

*Ackerman steering chassis with independently driven back wheels*  
*Tomáš Ripel, Jan Hrbáček, Jiří Krejsa, Czech Republic*

15:40

*Design of low-cost robotic arm for education*  
*Filip Tóth, Boris Rohal-Ilkiv, Pavol Krasňanský, Slovakia***Coffee break**

17:45 Sightseeing tour bus departure (Block A, parking)

18:00

Bratislava Sightseeing Tour

19:00

Welcome dinner

**Day 2**

**September 17<sup>th</sup>**

Invited lecture ROOM: BC-300  
**9:00 Boe-Bot Robot Kits Used in Education.**  
*Jessica Uelmen, Parallax, Inc., U.S.A.*

10:00 – 12:00	Session 3A: Robotics in Education	Session 3B: Hardware platforms and Misc.
	Chair: Peter Hubinsky <span style="float: right;">Room: BC-300</span>	Chair: Alexander Hofmann <span style="float: right;">Room: BC-150</span>
10:00	<i>Teaching Robotics at the Postgraduate Level: Delivering for On Site and Distance Learning Students</i> Jenny Carter, United Kingdom	10:00 <i>The 3D crane as a mechatronic tool for education</i> Mariusz Pauluk, Poland
10:20	<i>An Open Hardware Platform for Teaching and Project Based Work at the Undergraduate and Postgraduate Level</i> Benjamin N. Passow, United Kingdom	10:20 <i>The wireless communication in the walking robot application</i> Sylwester Cyrwus, Poland
10:40	<i>ROBINI – Robotic Initiative Lower Saxony: Development of practice-oriented education modules in schools</i> Julia Kramer, Germany	10:40 <i>Rovio: a commercial low-cost platform for mobile robotics education</i> Pablo Flecha Gutiérrez, Spain
	<b>Coffee break</b>	<b>Coffee break</b>
11:00	<i>Robotika.SK Approach to Educational Robotics from Elementary Schools to Universities</i> Pavel Petrovič, Slovakia	11:00 <i>Navigation of autonomous mobile robot using ultrasonic and infrared sensors</i> Martin Dekan, Slovakia
11:20	<i>On an educational approach to behavior learning for robots</i> Michel Tokic, Germany	11:20 <i>Parallelizing the Precomputed Scan Matching Method for Graphics Card processing</i> Petr Schreiber, Czech Republic
11:40	<i>Experiences using autonomous model airplanes for embedded control education and for bachelor and diploma projects</i> Thomas Kittenberger, Austria	11:40 <i>Looking for the path: image segmentation</i> Jan Coufal, Czech Republic
<b>12:00</b>	<b>Lunch</b>	<b>12:00 Lunch</b>

13:00 – 16:00	Session 4A: Modelling and Control	Posters
13:00	<i>Dynamic Stability of a five-link biped robot</i> Nahla Shannan, Malaysia	<i>Autonomous pilot</i> Alexandra Šlezárová, Slovakia
13:20	<i>Walking robot modelling aspects,</i> Marcin Piątek, Poland	<i>Using 3Pi robot POLOLU in the teaching process</i> Branislav Thurský, Slovakia
13:40	<i>Wheeled mobile robot modeling aspects,</i> Dariusz Marchewka, Poland	<i>How to attract children to mechatronics</i> Renata Janošcová, Slovakia
	<b>Coffee break</b>	<i>Sophisticated Measurement of Non-Electrical Parameters Using Image Analysis</i> Libor Hrgaš, Slovakia
14:00	<i>Bayesian filters in practice</i> Jiří Krejsa, Czech Republic	
14:20	<i>Sensor Data Fusion for Mobile Robot</i> Stanislav Věchet, Czech Republic	
14:40	<b>Coffee break</b>	
15:00		
15:20		

**Following part of the conference will be in Vienna:**

16:00	<i>Departure Vienna (bus)</i>
17:00	<i>Vienna Sightseeing Tour</i>
18:00	<i>CENTROBOT Project presentation (Palais Harrach, Wien)</i>
19:00	<b>CENTROBOT dinner (Palais Harrach, Wien)</b>
21 - 22:00	<i>Departure Bratislava (bus)</i>