

**3<sup>rd</sup> International Conference ISSEP  
Informatics in Secondary Schools – Evaluation and Perspectives  
July 1-4, 2008, Toruń**

**Programme**

<b>July 1, 2008</b>			
08.30 – 09.00	Registration (open all day)		
09.00 – 09.30	<b>Opening ceremony</b>		
09.30 – 11.00	<p><b>Plenary Session 1 – Chair: Roland Mittermeir</b> <span style="float: right;"><b>Aula</b></span></p> <p><b>Maciej M. Syslo, Anna Beata Kwiatkowska</b> (Poland): <i>The Challenging Face of Informatics Education in Poland</i></p> <p><b>Valentina Dagiene</b> (Lithuania), <b>Gerald Futschek</b> (Austria): <i>Bebras International Contest on Informatics and Computer Literacy: Criteria for Good Informatics Tasks</i></p> <p><b>Keynote: Krzysztof Diks, Jan Madey</b> (Poland), <i>From Top Coders to Top iT Professionals</i></p>		
11.00 – 11.30	Coffee break		
11.30 – 13.00	<p><b>Plenary Session 2 – Chair: Carol Sperry</b> <span style="float: right;"><b>Aula</b></span></p> <p><b>Donald Rhiney, Fred Martin</b> (USA): <i>Using Robotics to Integrate Mathematics and Physical Concepts</i></p> <p><b>Cheng-Chih Wu, I-Chih Tseng, Shih-Lung Huang</b> (Taiwan): <i>Visualization of Program Behaviours: Physical Robots vs. Robot Simulators</i></p> <p><b>Toshiyuki Kamada, Hiroyuki Aoki, Shuji Kurebayashi, Yoshikazu Yamamoto</b> (Korea, Japan): <i>Development of Educational System to Control Robots for All Students</i></p>		
13.00 – 14.00	Lunch break		
14.00 – 15.30	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><b>Parallel Session 1</b> <span style="float: right;"><b>Aula</b></span></p> <p>Chair: <b>Peter Hubwieser</b></p> <p><b>Christian J. Eibl, Sigrid E. Schubert</b> (Germany): <i>Development of E-Learning Design Criteria with Secure Realization Concepts</i></p> <p><b>Jurijs Lavendels, Vjaceslavs Sitikovs, Kaspars Krauklis</b> (Latvia): <i>Informational Technologies for Further Education of Latvian Province Teachers of Informatics</i></p> <p><b>Valentina Dagiene, Lina Zajančkauskienė, Inga Žilinskiene</b> (Lithuania): <i>A Distance Learning Course for Training Teachers' ICT Competence</i></p> </td> <td style="width: 50%; vertical-align: top;"> <p><b>Parallel Session 2</b> <span style="float: right;"><b>Room S3</b></span></p> <p>Chair: <b>Jan Madey</b></p> <p><b>Lubomir Salanci</b> (Slovak Republic): <i>Understanding Algorithms and Programming</i></p> <p><b>Michal Adamaszek, Piotr Chrzastowski-Wachtel, Anna Niewiarowska</b> (Poland): <i>VIPER, a Student-friendly Visual Interpreter of Pascal</i></p> <p><b>Pawel Baszuro, Jakub Swacha</b> (Poland): <i>Rey: An Educational Programming Language</i></p> </td> </tr> </table>	<p><b>Parallel Session 1</b> <span style="float: right;"><b>Aula</b></span></p> <p>Chair: <b>Peter Hubwieser</b></p> <p><b>Christian J. Eibl, Sigrid E. Schubert</b> (Germany): <i>Development of E-Learning Design Criteria with Secure Realization Concepts</i></p> <p><b>Jurijs Lavendels, Vjaceslavs Sitikovs, Kaspars Krauklis</b> (Latvia): <i>Informational Technologies for Further Education of Latvian Province Teachers of Informatics</i></p> <p><b>Valentina Dagiene, Lina Zajančkauskienė, Inga Žilinskiene</b> (Lithuania): <i>A Distance Learning Course for Training Teachers' ICT Competence</i></p>	<p><b>Parallel Session 2</b> <span style="float: right;"><b>Room S3</b></span></p> <p>Chair: <b>Jan Madey</b></p> <p><b>Lubomir Salanci</b> (Slovak Republic): <i>Understanding Algorithms and Programming</i></p> <p><b>Michal Adamaszek, Piotr Chrzastowski-Wachtel, Anna Niewiarowska</b> (Poland): <i>VIPER, a Student-friendly Visual Interpreter of Pascal</i></p> <p><b>Pawel Baszuro, Jakub Swacha</b> (Poland): <i>Rey: An Educational Programming Language</i></p>
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	<p><b>Kim, ByoungWook Kim, WonGyu Lee</b> (Korea): <i>Development of Educational Contents for Learning DLC</i></p> <p><b>Monika Gruslyte, Lina Tankeleviciene</b> (Lithuania): <i>Institutional Approach to Distance Studies: A Case</i></p>	<p>gary): <i>Turtle's Curves</i></p> <p><b>Jolanta Zielińska</b> (Poland): <i>Applying Algorithmic Reasoning in Education of Children with Hearing Impairments</i></p>
18.30 – ...	Guided tour to the Old Town	
<b>July 2, 2008</b>		
09.00 – 11.00	<p><b>Plenary Session 3 – Chair: Valentina Dagiene</b> <span style="float: right;"><b>Aula</b></span></p> <p><b>Keynote: David Ginat</b> (Israel): <i>Design Disciplines and non-Specific Transfer</i></p> <p><b>Evgenia Sendova, Eliza Stefanova, Nikolina Nikolova, Eugenia Kovatcheva</b> (Bulgaria), <i>To be Like a (School of) Fish in the Water (or ICT-enhanced Skills in Action)</i></p> <p><b>Carsten Schulte</b> (Germany): <i>Duality Reconstruction – Teaching Software Artifacts from a Socio-Technical Perspective</i></p>	
11.00 – 11.30	Coffee break	
11.30 – 13.00	<p><b>Plenary Session 4 – Chair: Gerald Futschek</b> <span style="float: right;"><b>Aula</b></span></p> <p><b>Peter Hubwieser</b> (Germany): <i>Analysis of Learning Objectives in Object Oriented Programming</i></p> <p><b>Biserka Bonocheva Yovcheva</b> (Bulgaria): <i>Spiral Teaching of Programming to 10-11 Year Old Pupils After Having Passed First Training (Based on the Language C++)</i></p> <p><b>Ivan Kalas, Michal Winczer</b> (Slovakia): <i>Informatics as a Contribution to Modern Constructivist Education</i></p>	
13.00 – 14.00	Lunch break	
14.00 – 15.30	<p><b>Parallel Session 5</b> <span style="float: right;"><b>Aula</b></span></p> <p>Chair: <b>Peter Michuez</b></p> <p><b>Michael Weigend</b> (Germany): <i>To Have or to Be? Possessing Data versus Being in a State – Two Different Intuitive Concepts Used in Informatics</i></p> <p><b>Peter Gruber</b> (Austria): <i>Bringing Abstract Concepts Alive. How to Base Learning Success on the Principles of Playing, Curiosity and In-Classroom Differentiation</i></p> <p><b>Tamar Benaya, Ela Zur</b> (Israel): <i>Understanding Object Oriented Programming Concepts in an Advanced Programming Course</i></p>	<p><b>Parallel Session 6</b> <span style="float: right;"><b>Room S3</b></span></p> <p>Chair: <b>David Ginat</b></p> <p><b>Markus Steinert, Reneè Schneider</b> (Germany): <i>Implicit Learning Objectives, Functional Modelling and Recursion</i></p> <p><b>Ľubomír Šnajder, Ján Guniš, Valentína Gunišová</b> (Slovakia): <i>Methodology Design of Algorithm Development Teaching Based on Content Analysis of pupils' Solution</i></p> <p><b>Yukio Idosaka, Hiroto Ashikaga, Shuuji Kurebayashi, Toshiyuki Kamada, Susumu Kanemune, Yasushi Kuno</b> (Japan): <i>Positive Side Effects of Programming Classes – Especially on Thinking Ability and Mathematics</i></p>
15.30 – 16.00	Coffee break	

16.00 – 17.30	<p><b>Parallel Session 7</b> <b>Aula</b></p> <p>Chair: <b>Ewa Kolczyk</b></p> <p><b>Shuji Kurebayashi, Hiroyuki Aoki, Toshiyuki Kamada, Susumu Kanemune, Yasushi Kuno</b> (Korea, Japan): <i>Proposal of Teaching Manufacturing And Control Programming Using Autonomous Mobile Robots with An Arm</i></p> <p><b>Javier Arlegui, Nello Fava, Emanuele Menegatti, Stefano Monfalcon, Michele Moro, Alfredo Pina</b> (Italy, Spain): <i>Robotics at Primary and Secondary Education Levels: Technology, Methodology, Curriculum and Science</i></p> <p><b>Matthias Heming, Ludger Humbert</b> (Germany): <i>Mobile Programming – the Usefulness of Mobile Phones for Teaching Informatics</i></p>	<p><b>Parallel Session 8</b> <b>Room S3</b></p> <p>Chair: <b>Fred Martin</b></p> <p><b>Volodymyr Boublik, Mykola Glybovets, Klaus Hänßgen</b> (Ukraine, Germany): <i>Expectations and Outcomes of Interregional IT Training for Teachers</i></p> <p><b>Yoshiaki Nakano</b> (Japan): <i>Content and Current Status of the Subject “Informatics” of High Schools in Japan</i></p>
19.30 – ...	Conference dinner	
<b>July 3, 2008</b>		
09.00 – 11.00	<p><b>Plenary Session 5 – Chair: Bruria Haberman</b> <b>Room S9</b></p> <p><b>Keynote: Karin Freiermuth, Juraj Hromkovic, Björn Steffen</b> (Switzerland): <i>Creating and Testing Textbooks for Secondary Schools. An Example: Programming in LOGO</i></p> <p><b>Noa Ragonis, Orit Hazzan</b> (Israel): <i>Disciplinary-Pedagogical Teacher Preparation for Pre-Service Computer Science Teachers: Rational and Implementation</i></p> <p><b>Ewa Kolczyk</b> (Poland): <i>Algorithm – Fundamental Concept in Preparing Informatics Teachers</i></p>	
11.00 – 11.30	Coffee break	
11.30 – 13.00	<p><b>Plenary Session 6 – Chair: Ivan Kalas</b> <b>Room S9</b></p> <p><b>Nataša Grugurina</b> (The Netherlands): <i>Computer Science Teacher Training at the University of Groningen</i></p> <p><b>Bruria Haberman, Orna Muller, Haim Averbuch</b> (Israel): <i>Multi-facet Problem Comprehension: Utilizing an Algorithmic Idea in Different Contexts</i></p> <p><b>Jonas Blonskis, Valentina Dagiene</b> (Lithuania): <i>Analysis of Students’ Developed Programs at the Maturity Exams in Information Technologies</i></p>	
13.00 – 14.00	<p><b>Invited Speaker: Raymond Morel</b> (Szwajcaria): <i>Seoul 2.0 Model, A learning organization for lifelong learners. IFIP Agora Initiative</i></p>	<b>Aula</b>
14.00 – 15.30	Lunch and coffee break	
15.30 – 17.30	<p><b>Session 9 – Chair: Noa Ragonis</b> <b>Room S9</b></p> <p><b>Ralf Romeike</b> (Germany): <i>What’s my Challenge? The Forgotten Part of Problem Solving in Computer Science Education</i></p> <p><b>Robertas Damaševičius, Vytautas Štuikys</b> (Lithuania): <i>On the Technological</i></p>	

	<p><i>Aspects of Generative Learning Object Development</i></p> <p><b>Karin Hodnigg, Peter Micheuz</b> (Austria): <i>Spreadsheet Instruction through Simulation. From Empirical Perspectives Towards Didactical Models</i></p> <p><b>JongHye Kim, HanSung Kim, JeongA Jang, Byung Wook Kim, SongMi Kim, HyunCheol Kim, WonGyu Lee</b> (Korea): <i>Teachers Recognition and Requirements Analysis for the Contents of Informatics In-service Training in Korea</i></p>
<b>July 4, 2008</b>	
09.00 – 11.00	<p><b>Plenary Session 7 – Chair: Juraj Hromkovic</b> <span style="float: right;"><b>Room S9</b></span></p> <p><b>Valentina Dagiene</b> (Lithuania): <i>Teaching Information Technology and Elements of Informatics in Lower Secondary Schools: Curricula, Didactic Provision and Implementation</i></p> <p><b>Peter Micheuz</b> (Austria): <i>Harmonization of Informatics Education – Science Fiction or Prospective Reality?</i></p> <p><b>Françoise Tort, François-Marie Blondel, Eric Bruillard</b> (France): <i>Spreadsheet Knowledge and Skills of French Secondary School Students: Case Studies from the DidaTab Project</i></p>
11.00 – 11.30	Coffee break
11.30 – 13.00	<p><b>Plenary Session 8 – Chair: Maciej M Sysło</b> <span style="float: right;"><b>Aula</b></span></p> <p><b>Tomohiro Nishida, Yukio Idosaka, Yayoi Hofuku, Susumu Kanemune, Yasushi Kuno</b> (Japan): <i>New Methodology of Information Education with “Computer Science Unplugged”</i></p> <p><b>Avi Cohen, Bruria Haberman</b> (Israel): <i>Computer Science – A Language of Technology</i></p> <p><b>Panel:</b> The Future of Informatics Education in Schools.</p> <p><b>Panelists:</b> Program Committee members</p>
13.00 – 14.00	Lunch

**Workshops**

01.07.2008 16.00-17.30; Lab L9	02.07.2008 14.00-15.30; Lab L9	02.07.2008 16.00-17.30; Lab S5	03.07.2008 16.00-17.30; Lab L9
<b>Lampros Stergioulas</b> <i>Digital Literacy in Compulsory Education</i>	<b>Bohumir Soukup</b> <i>SGP Baltie 4 C++</i>	<b>Valentina Dagiene, Gerald Futschek</b> <i>Bebras International Contest</i>	<b>Rolf Romeike</b> <i>A Creative Introduction to Programming with Scratch</i>