

# Contents

## Research Papers

Teaching Computer Image Processing Subject to Middle School Students: Cognitive and Affective Aspects . . . . .	3
<i>Khaled Asad</i>	
Analyzing Conceptual Content of International Informatics Curricula for Secondary Education . . . . .	14
<i>Erik Barendsen and Tim Steenvoorden</i>	
It's Computational Thinking! Bebras Tasks in the Curriculum . . . . .	28
<i>Valentina Dagienė and Sue Sentance</i>	
How to Attract the Girls: Gender-Specific Performance and Motivation in the Bebras Challenge . . . . .	40
<i>Peter Hubwieser, Elena Hubwieser, and Dorothee Graswald</i>	
Attitudes Towards Computer Science in Secondary Education: Evaluation of an Introductory Course . . . . .	53
<i>Daniel Lessner</i>	
Typifying Informatics Teachers' PCK of Designing Digital Artefacts in Dutch Upper Secondary Education . . . . .	65
<i>Ebrahim Rahimi, Erik Barendsen, and Ineke Henze</i>	
Students' Success in the Bebras Challenge in Lithuania: Focus on a Long-Term Participation . . . . .	78
<i>Gabrielė Stupurienė, Lina Vinikienė, and Valentina Dagienė</i>	
What Makes Situational Informatics Tasks Difficult? . . . . .	90
<i>Jiří Vaniček</i>	

## Best-Practice Papers and Country Reports

A New Informatics Curriculum for Secondary Education in The Netherlands . . . . .	105
<i>Erik Barendsen, Nataša Grgurina, and Jos Tolboom</i>	
And Now What Do We Do with Our Schoolchildren? . . . . .	118
<i>G. Barbara Demo</i>	

Defining and Observing Modeling and Simulation in Informatics . . . . .	130
<i>Nataša Grgurina, Erik Barendsen, Bert Zwaneveld, Klaas van Veen, and Cor Suhre</i>	
K-12 Computer Science Education Across the U.S. . . . .	142
<i>Hai Hong, Jennifer Wang, and Sepehr Hejazi Moghadam</i>	
Combining the Power of Python with the Simplicity of Logo for a Sustainable Computer Science Education . . . . .	155
<i>Juraj Hromkovič, Tobias Kohn, Dennis Komm, and Giovanni Serafini</i>	
A New Interactive Computer Science Textbook in Slovenia . . . . .	167
<i>Nataša Mori and Matija Lokar</i>	
Computer Science in the Eyes of Its Teachers in French-Speaking Switzerland . . . . .	179
<i>Gabriel Parriaux and Jean-Philippe Pellet</i>	
<b>Work in Progress</b>	
IT2School – Development of Teaching Materials for CS Through Design Thinking . . . . .	193
<i>Ira Diethelm and Melanie Schaumburg</i>	
“Why Can’t I Learn Programming?” The Learning and Teaching Environment of Programming. . . . .	199
<i>Zsuzsanna Szalayné Tahy and Zoltán Czirkos</i>	
<b>Author Index</b> . . . . .	205

Informatics in Schools: Improvement of Informatics  
Knowledge and Perception  
9th International Conference on Informatics in Schools:  
Situation, Evolution, and Perspectives, ISSEP 2016,  
Münster, Germany, October 13-15, 2016, Proceedings  
Brodnik, A.; Tort, F. (Eds.)  
2016, XII, 205 p. 29 illus., Softcover  
ISBN: 978-3-319-46746-7