

# **ICTE in Regional Development 2014**

**Procedia Computer Science Volume 43**

**Valmiera, Latvia  
December 2014**

**Editors:**

**Egils Ginters**

**Marco Schumann**

**ISBN: 978-1-5108-0138-7**

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© by Elsevier B.V.  
All rights reserved.

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact Elsevier B.V.  
at the address below.

Elsevier B.V.  
Radarweg 29  
Amsterdam 1043 NX  
The Netherlands

Phone: +31 20 485 3911  
Fax: +31 20 485 2457

<http://www.elsevierpublishingsolutions.com/contact.asp>

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2634  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)



## Contents

Preface ICTE 2014	
E. Ginters, M. Schumann	1
Models for Implementation of Software Configuration Management	
A. Bartusevics, L. Novickis	3
Software Engineering Competence Evaluation Portal	
B. Misnevs	11
Architecture for Distributed Simulation Environment	
A. Aizstrauts, E. Ginters, M. Baltruks, M. Gusev	18
CORAS for Threat and Risk Modeling in Social Networks	
A. Larionovs, A. Teilans, P. Grabusts	26
Service Oriented Solution for Managing Smartlets	
N. Bumanis, G. Vitols, I. Smits, J. Smirnova, I. Arhipova, V. Salajevs	33
Software Architecture and Detailed Design Evaluation	
A. Vishnyakov, S. Orlov	41
Assessment of Name Based Algorithms for Land Administration Ontology Matching	
I. Zarembo, A. Teilans, A. Rausis, J. Buls	53
The Tourism Service Consumption Model for the Sustainability of the Special Protection Areas	
I. Berzina, T. Grizane, I. Jurgelane	62
Applying Theory of Diffusion of Innovations to Evaluate Technology Acceptance and Sustainability	
D. Aizstrauta, E. Ginters, M.-A. Pjera Eroles	69
Advanced RFID Applications for Sports Events Management: The Case of SPORTident in Latvia	
A. Andersons, S. Ritter	78
System Architectures for Real-time Bee Colony Temperature Monitoring	
A. Kvisis, A. Zacepins	86
Testing Overload Levels of Audio Amplifier Using STELLA	
M. Biss	95
Using ICT in Developing a Resilient Supply Chain Strategy	
P. Mensah, Y. Merkuryev, F. Longo	101
Building Recognition Using LiDAR and Energy Minimization Approach	
S. Kodors, A. Ratkevics, A. Rausis, J. Buls	109
Holistic Benchmarking of the Bio-economy in Protected Landscape Areas	
G. Majore, V. Zakis, M. Zake, E. Ginters, K. Zakis, A. Fjodorovs	118
Automated Learning Support System to Provide Sustainable Cooperation between Adult Education Institutions and Enterprises	
A. Jakobsone, S. Cakula	127
Concept of Learner Behaviour Data Based Learning Support	
B. Zuga, A. Kapenieks, A. Gorbunovs, M. Jirgensons, J. Kapenieks sr., J. Kapenieks jr., I. Vitolina, G. Jakobsone-Snepste, I. Kudina, K. Kapenieks, Z. Timsans, R. Gulbis	134
Direct Assessment Initiatives within a Lifelong Learning Context	
M. Jirgensons	141
Learning Content Development Methodology for Mobile Devices	
N. Paulins, S. Balina, I. Arhipova	147
Analysis of Knowledge Management and E-Learning Integration Models	
J. Judrups	154