2016 Smart Cities Symposium Prague (SCSP 2016)

Prague, Czech Republic
26-27 May 2016

IEEE Catalog Number: CFP16C83-POD
ISBN: 978-1-5090-1117-9

Copyright © 2016 by the Institute of Electrical and Electronics Engineers, Inc
All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

******This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number: CFP16C83-POD
ISBN (Print-On-Demand): 978-1-5090-1117-9
ISBN (Online): 978-1-5090-1116-2

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) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Page #	Title / Authors	Paper ID
1	**A Program searching for a functional dependence using genetic programming with coefficient adjustment** *Vladimir Hlavac*	**21**
7	**A Smart Surveillance System of Distributed Smart Multi Cameras modelled as Agents** *Daan Eigenraam, Leon Rothkrantz*	**25**
13	**Advanced prediction methods in structural fire safety engineering** *Kamila Cabova, Lukas Blesak, Frantisek Wald*	**28**
18	**Analysis of possibility to utilize road marking for the needs of autonomous vehicles** *Michal Matowicki, Ondrej Pribyl, Pavel Pribyl*	**38**
24	**Application of the Traffic Conflict Technique in the Czech Republic** *Josef Kocourek*	**52**
28	**Assessment of Smart City Implementations** *Dietrich Leihs, Karl Ernst Ambrosch*	**50**
34	**BBCU in Smart Cities Applications** *Radek Holý, Marek Kalika, Jiří Havlík, Pavel Krejsa, Libor Janda, Jan Schlechter*	**56**
38	**Conception of Future Integrated Smart Mobility** *Dávid Földes, Csaba Csiszár*	**29**

44 **Data Mining in Fare Collection Systems** **55**

Jindřich Borka, Krzysztof Urbaniec, Milan Sliacky

50 **Discussion of uncertainties factors in Smart Cities systems** **18**

Mirko Novák, Zdeněk Votruba

54 **Dynamic Social Evolution Model in Virtual City Laboratory** **54**

Michal Postranecky, Miroslav Svitek

58 **Enhancement of control processes of city buses' traffic safety** **57**

Ojum Balabaev, Kairatolla Abishev, Dauren Sarzhanov, Anuar Anuar, Anuar Spanov, Abishev Kairatolla

63 **Evaluation of the traffic control impact on the smart cities environment** **17**

Kristýna Cikhardtová, Zuzana Bělinová, Tomáš Tichý

67 **Flood control of the smart city Prague** **59**

Leon Rothkrantz

74 **GIS Approach in Vehicle Route Optimization for Residential Recyclables Collection** **35**

Karel Kus, Ruey Long Cheu, Tomas Horak

80 **Green and Blue Infrastructure: An Opportunity for Smart Cities?** **44**

Jan Macháč, Jiří Louda, Lenka Dubová

86 **High Resolution Modelling of Anthropogenic Heat from Traffic in Urban Canopy: A Sensitivity Study** **45**

Přemysl Derbek, Jaroslav Resler, Pavel Krč, Michal Belda, Pavel Juruš, Nina Benešová, Ondřej Vlček, Daša Srbová, Kryštof Eben, Pavel Hrubeš

92 **ICT Architecture for the Smart Grid: Concept Overview** **49**

Barbora Buhnova, Terézia Kazičková

96 **Industry 4.0 as a Part of Smart Cities** **22**

Michal Lom, Ondřej Přibyl, Miroslav Svítek

102 **Involving Citizens in Smart City Projects: System Engineering Meets Participation** **40**

Ondrej Pribyl, Tomas Vacha, Martina Bacurova, Michal Lom

108 **Logistic regression with expert intervention** **46**

Pavla Pecherková, Ivan Nagy

113 **Metropolitan Delivery with Time Windows as a Scheduling Problem** **53**

Wojciech Bozejko, Czeslaw Smutnicki, Mieczyslaw Wodecki

118 **Mobile sensor unit for online air quality monitoring** **41**

Petr Brynda, Zuzana Kosová, Jan Kopřiva

122 **Pilot Applications of Cooperative Systems** **48**

Martin Srotyr, Tomas Zelinka, Zdenek Lokaj

126 **Smart cities and ageing population – Implications for waste management in the Czech Republic** **36**

Kristýna Rybová, Jan Slavík

132 **Smart cities, multi-system approach to system modelling** **19**

Petr Moos, Miroslav Svítek, Zdeněk Votruba

138 **Smart Grids Deployments within EU Projects: The Role of Smart Meters** **47**

Stanislav Chren, Bruno Rossi, Tomáš Pitner

143 **Smart ITS comes from Venus** **27**

Juraj Kotrik, Gernot Pucher

149 **Social and Environmental Factors Influencing Active School Transport (AST) in Radotin, Prague** **24**

Jana Zdráhalová, Irena Boumova

155 **Solution to the Location-Routing Problem Using a Genetic Algorithm** **23**

Alena Rybičková, Adéla Burketová, Denisa Mocková

161 **The transportation accessibility and residential mobility in the Prague Metropolitan Area** **42**

Jakub Vorel, Daniel Franke, Martin Šilha

167 **Tools for Risk Management of Model Metro Station** **26**

Tomáš Kertis, Danuše Procházková

173 **Transit Oriented Development in Mid-Size Cities: A Star-Shaped Urban Form Promoted** **32**

Jindřich Felcman, Martin Šilha