

2020 Smart City Symposium Prague (SCSP 2020)

**Prague, Czech Republic
25 June 2020**



**IEEE Catalog Number: CFP20C83-POD
ISBN: 978-1-7281-6822-7**

**Copyright © 2020 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 is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP20C83-POD
ISBN (Print-On-Demand):	978-1-7281-6822-7
ISBN (Online):	978-1-7281-6821-0

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

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

Title / Authors	Paper ID	Page No.
Alternative mobility system using IoT and smart-cities approaches through the use of the bike for a sector of the city of Bogota within a simulated environment <i>Sergio Garcia-Perez, Carol Masmela-Cardenas, Jose Alvarez-Severiche, Diego Fernando Bermudez, Klaus-Banse, Gilberto Pedraza, Luis Felipe Herrera-Quintero</i>	47	1
Analysis of Ride-sharing based on Newton's gravity model <i>Simon Nagy, Csaba Csiszár</i>	33	7
Assessment of the Motorcycle Rider Behaviour – Experimental Study on the Race Track <i>Přemysl Toman, Josef Svoboda, Adam Orlický</i>	30	13
Centralized charging power distribution method for electric vehicles <i>Bálint Csonka</i>	32	19
City Infrastructure Evaluation using Urban Simulation Tools <i>Roman Dostál, Ondřej Příbyl, Miroslav Svítek</i>	25	25
Complementarities and Synergies of Quadruple Helix Innovation Design in Smart City Development <i>Bojana Suzic, Annette Ulmer, Jens Schumacher</i>	40	31
Crisis management as the part of smart traffic control in cities <i>Jiří Růžička, Kristýna Navrátilová</i>	31	38
Cross-Border Student Mobility in El Paso – Ciudad Juarez Bi-National Metropolitan Area <i>Tomáš Horák, Eva Pláničková</i>	20	43

Cultural ecosystem services and public preferences: How to integrate them effectively into Smart City planning?	21	49
<i>J. Macháč, M. Hekrlé, P. Meyer, N. Staňková, J. Brabec and M. Sýkorová</i>		
Detection of the electric vehicle using thermal characteristics	14	55
<i>David Švorc, Tomáš Tichý, Miroslav Růžička</i>		
Effects of Focus Groups' results on a Travel Behavior Survey design	34	60
<i>K. Moudrá, L. Svobodová, H. Brůhová Foltýnová, O. Příbyl</i>		
Estimation of discrete data using binomial mixture	4	66
<i>Šárka Jozová, Ivan Nagy</i>		
Experience from the pilot project of the air quality sensor network in Litoměřice	43	71
<i>Petr Brynda, Petr Honzík, Zuzana Kosová, Karina Šimonová</i>		
Identification and monitoring of traffic operators' fatigue level	16	77
<i>Petr Kouba, Michal Šmotek, Tomáš Tichý</i>		
Influence of data aging on artificial and living systems	11	83
<i>Zdeněk Votruba, Mirko Novák</i>		
Modeling and Assessing Evacuation Route Plans by Resorting to the P-graph Framework	2	88
<i>J. C. Garcia-Ojeda, A. Argoti, B. Bertók, F. Friedler</i>		
Multi parameter routing in air polluted urban areas	7	94
<i>Leon Rothkrantz</i>		
Predictive diagnostics usage for telematic systems maintenance	17	100
<i>Tomáš Tichý, Jiří Brož, Zuzana Bělinová, Petr Kouba</i>		

Revealing pedestrian behaviors to support the decision-making of autonomous vehicles	35	106
<i>Izabella Fejes, Dávid Földes</i>		
Safety of crews of autonomous cars	45	112
<i>Josef Mík, Petr Bouchner</i>		
Selecting explanatory variables for passenger demand model	24	117
<i>Matěj Petrouš</i>		
Smart application for traffic excess prediction	38	122
<i>Jiří Růžička, Zuzana Purkrábková, Vojtěch Korec</i>		
Smart City 5.0 Testbed in Prague	36	127
<i>M. Svítek, R. Dostál, S. Kozhevnikov, and T. Janča</i>		
Smart Cities and Quality of Life perception in the Czech Republic	26	133
<i>Michaela Zachová, Tomáš Horák</i>		
Smart City as an Urban Ecosystem	27	138
<i>George Rzevski, Sergei Kozhevnikov,, Miroslav Svítek</i>		
Space Syntax: A multi disciplinary tool to understand city dynamics	13	145
<i>Jakub Matějček, Ondřej Příbyl</i>		
Subjective evaluation of a traffic stream quality by drivers	44	151
<i>Michal Matowicki, Jana Kuklová</i>		
Technical part of evaluation solution for cooperative vehicles within C-ROADS CZ project	29	156
<i>Zdenek Lokaj, Martin Srotyr, Miroslav Vanis, Jiri Broz</i>		

The need for balanced policies integrating autonomous vehicles in cities	16	161
<i>Michal Matowicki, Ondřej Příbyl</i>		
Travel Time Description for Urban Routes Operated with Electric Buses	46	168
<i>Zbigniew Czapla, Stanisław Krawiec</i>		
Urban Heat Vulnerability Assessment of Smart Border	23	173
<i>Sagnik Bhattacharjee, Jiri Tencar, Tatsiana Danilchuk, Miroslav Svítek, Tomáš Horák</i>		