

Contents

SUMS

A Survey on Mobile Sensing Based Mood-Fatigue Detection for Drivers . . .	3
<i>Wei Tu, Lei Wei, Wenyan Hu, Zhengguo Sheng, Hasen Nicanfar, Xiping Hu, Edith C.-H. Ngai, and Victor C.M. Leung</i>	
Straight from the Horse's Mouth: "I am an Electric Vehicle User, I am a Risk Taker." [EV14, M, c. 30]	16
<i>Eiman Y. ElBanhawy</i>	
Automated Pedestrians Data Collection Using Computer Vision	31
<i>Tarek Sayed, Mohamed Zaki, and Ahmed Tageldin</i>	
5G-Optimizing Network Coverage in Radio Self Organizing Networks by M/L Based Beam Tilt Algorithm	44
<i>Premkumar Karthikeyan, Nagabushanam Hari Kumar, and Srinivasan Aishwarya</i>	
Understanding Intercity Freeway Traffic Variability at Holidays Using Anonymous Cell Phone Data	55
<i>Gang Liu, Chenhao Wang, and Tony Z. Qiu</i>	
Privacy-Enhanced Android for Smart Cities Applications	66
<i>Matthew Lepinski, David Levin, Daniel McCarthy, Ronald Watro, Michael Lack, Daniel Hallenbeck, and David Slater</i>	
Towards Smart City Implementations in Sub-Saharan Africa: The Case of Public Transportation in Ouagadougou (Burkina Faso).	78
<i>Jonathan Ouoba, Tegawendé F. Bissyandé, and Cédric Béré</i>	
Connecting Digital Cities: Return of Experience on the Development of a Data Platform for Multimodal Journey Planning	91
<i>Jonathan Ouoba, Janne Lahti, and Jukka Ahola</i>	
Development of Route Accessibility Index to Support Wayfinding for People with Disabilities	104
<i>Jonathan A. Duvall, Jonathan L. Pearlman, and Hassan A. Karimi</i>	
Simulating Adaptive, Personalized, Multi-modal Mobility in Smart Cities . . .	113
<i>Andreas Poxrucker, Gernot Bahle, and Paul Lukowicz</i>	
Feature-Based Room-Level Localization of Unmodified Smartphones	125
<i>Jiaxing Shen, Jiannong Cao, Xuefeng Liu, Jiaqi Wen, and Yuanyi Chen</i>	

The Charging Personas of the E-Mobility Users of Newcastle-Gateshead Urban Area	137
<i>Eiman Y. ElBanhawy</i>	

SWIT-Health

Segmentation by Data Point Classification Applied to Forearm Surface EMG	153
<i>Jonathan Feng-Shun Lin, Ali-Akbar Samadani, and Dana Kulić</i>	

On the Use of Consumer-Grade Activity Monitoring Devices to Improve Predictions of Glycemic Variability	166
<i>Chandra Krintz, Rich Wolski, Jordan E. Pinsker, Stratos Dimopoulos, John Brevik, and Eyal Dassau</i>	

Design and Implementation of a Remotely Configurable and Manageable Well-being Study	179
<i>Sudip Vhaduri and Christian Poellabauer</i>	

A Novel Wayfinding Service for Empowering Physical Activity	192
<i>Hassan A. Karimi, Janice C. Zgibor, Gretchen A. Piatt, and Monsak Socharoentum</i>	

S2CT

Toward an Architectural Model for Highly-Dynamic Multi-tenant Multi-service Cloud-Oriented Platforms	203
<i>Adel Titous, Mohamed Cheriet, and Abdelouahed Gherbi</i>	

Large Scale Energy Harvesting Sensor Networks with Applications in Smart Cities	215
<i>Hossein Shafieirad, Raviraj S. Adve, and Shahram ShahbazPanahi</i>	

Applications and Challenges of Life Cycle Assessment in the Context of a Green Sustainable Telco Cloud	227
<i>Thomas Dandres, Reza Farrahi Moghaddam, Kim Nguyen, Yves Lemieux, Mohamed Cheriet, and Réjean Samson</i>	

M2M Middleware Based on OpenMTC Platform for Enabling Smart Cities Solution	239
<i>Maman Abdurohman, Arif Sasongko, and Anton Herutomo</i>	

Hyper Heterogeneous Cloud-Based IMS Software Architecture: A Proof-of-Concept and Empirical Analysis	250
<i>Pascal Potvin, Hanen Garcia Gamardo, Kim-Khoa Nguyen, and Mohamed Cheriet</i>	

Micro Service Cloud Computing Pattern for Next Generation Networks.	263
<i>Pascal Potvin, Mahdy Nabaee, Fabrice Labeau, Kim-Khoa Nguyen, and Mohamed Cheriet</i>	

SGSC

Economic Analysis of Chemical Energy Storage Technologies	277
<i>Parvez Ahmed Khan and Bala Venkatesh</i>	
Trends in Short-Term Renewable and Load Forecasting for Applications in Smart Grid	292
<i>Dongchan Lee, Jangwon Park, and Deepa Kundur</i>	
An Overview of Smart Grids in the GCC Region	301
<i>İslam Şafak Bayram and Hamed Mohsenian-Rad</i>	
Smart Grid for Smart City Activities in the California City of Riverside	314
<i>Hamed Mohsenian-Rad and Ed Cortez</i>	
Power Consumption Scheduling for Future Connected Smart Homes Using Bi-Level Cost-Wise Optimization Approach	326
<i>Mohammad Hossein Yaghmaee, Morteza Moghaddassian, and Alberto Leon Garcia</i>	
Wind Resource Assessment of the Metropolitan Area of Barcelona	339
<i>Guillaume Caniot, María Bullido García, Stephane Sanquer, Starsky Naya, and Emili del Pozo</i>	
User Behavior Modeling for Estimating Residential Energy Consumption . . .	348
<i>Baris Aksanli, Alper Sinan Akyurek, and Tajana Simunic Rosing</i>	
Secure Management and Processing of Metered Data in the Cloud	362
<i>Bokun Zhang, Pirathayini Srikantha, and Deepa Kundur</i>	
A Secure Cloud Architecture for Data Generated in the Energy Sector.	374
<i>Michael Pham-Hung, Pirathayini Srikantha, and Deepa Kundur</i>	
Network-Aware QoS Routing for Smart Grids Using Software Defined Networks	384
<i>Jinjing Zhao, Eman Hammad, Abdallah Farraj, and Deepa Kundur</i>	
Self-healing Restoration of Smart Microgrids in Islanded Mode of Operation.	395
<i>M. ZakiEl-Sharafy and H.E. Farag</i>	
Energy Efficient Data Centres Within Smart Cities: IaaS and PaaS Optimizations	408
<i>Corentin Dupont, Mehdi Sheikhalishahi, Federico M. Facca, and Silvio Cretti</i>	

BigDASC

Sipresk: A Big Data Analytic Platform for Smart Transportation	419
<i>Hamzeh Khazaei, Saeed Zareian, Rodrigo Veleda, and Marin Litoiu</i>	
Day-Ahead Electricity Spike Price Forecasting Using a Hybrid Neural Network-Based Method	431
<i>Harmanjot Singh Sandhu, Liping Fang, and Ling Guan</i>	
Transportation Big Data Simulation Platform for the Greater Toronto Area (GTA)	443
<i>Islam R. Kamel, Hossam Abdelgawad, and Baher Abdulhai</i>	
Appliance Water Disaggregation via Non-intrusive Load Monitoring (NILM)	455
<i>Bradley Ellert, Stephen Makonin, and Fred Popowich</i>	
Seismic Source Modeling by Clustering Earthquakes and Predicting Earthquake Magnitudes	468
<i>Mahdi Hashemi and Hassan A. Karimi</i>	
Restaurant Sales and Customer Demand Forecasting: Literature Survey and Categorization of Methods	479
<i>Agnieszka Lasek, Nick Cercone, and Jim Saunders</i>	
Visualizing a City Within a City – Mapping Mobility Within a University Campus	492
<i>Dirk Ahlers, Kristoffer Gebuhr Aulie, Jeppe Eriksen, and John Krogstie</i>	
BIM for Corporate Real Estate Data Visualization from Disparate Systems. . . .	504
<i>S. Lazar and J.J. McArthur</i>	
A Naive Bayesian Classification Model for Determining Peak Energy Demand in Ontario	517
<i>Bon Ryu, Tokunbo Makanju, Agnieszka Lasek, Xiangdong An, and Nick Cercone</i>	

MOBI Danube

Eco-Innovation in Manufacturing Process in Automotive Industry	533
<i>Martin Spirko, Daniela Spirkova, Dagmar Caganova, and Manan Bawa</i>	
Knowledge Management in the Marketing Mix of Small Food Businesses . . .	541
<i>Michal Pružinský</i>	
Some Reflections on the Determinants of ICT Usage.	551
<i>Menbere Workie Tiruneh</i>	

Social Media Communication: Re-creating the Context of Social Gaming . . .	559
<i>Predrag K. Nikolic and Jelena S. Stankovic</i>	
The Requirements to Develop a Competency Model for the Position of a Team Leader in Industrial Enterprises in Slovakia.	572
<i>Barbora Sokolovská, Dagmar Cagáňová, and Kristína Kašníková</i>	
Traffic Signs in Urban Logistics with the Use of RFID Technology	584
<i>Michal Balog, Erik Szilagyi, and Miroslav Mindas</i>	
Informatization of Rail Freight Wagon by Implementation of the RFID Technology	592
<i>Michal Balog and Miroslav Mindas</i>	
Development of Costs of Living in the South Moravian Region of the Czech Republic, and Affordable Housing	598
<i>Pavel Zufan</i>	
Importance of Internet of Things and Big Data in Building Smart City and What Would Be Its Challenges.	605
<i>Manan Bawa, Dagmar Caganova, Ivan Szilva, and Daniela Spirkova</i>	
Socio-Economics Aspects of Housing Quality in the Context of Energy Poverty.	617
<i>Daniela Spirkova, Maria Zubkova, Janka Babelova, and Dagmar Caganova</i>	
SustainableMoG	
Identification of Key Supply Chain Elements from the Supply Chain Resilience Viewpoint Using the Computer Simulation and Design of Experiments	629
<i>Radim Lenort, Pavel Wicher, Eva Jarošová, Marek Karkula, David Staš, and David Holman</i>	
Traditional Cost Accounting as the Key Obstacle to Reach Sustainable SCM Solution in the Industry of the 3rd Millennium.	640
<i>Jiří Michna, David Holman, Radim Lenort, David Staš, and Pavel Wicher</i>	
Green Supply Chain Design Considering Warehousing and Transportation. . .	648
<i>Ingo Gestring</i>	
The Challenges of Sustainable Logistics in Finland	659
<i>Jorma Imppola</i>	
Technology Transfer – Case of Slovak Academic Environment.	671
<i>Jana Kundriková, Anna Závodská, and Jakub Soviar</i>	

Marketing Communications and Its Sustainable Influence on Different Generations	681
<i>Michal Varmus and Milan Kubina</i>	
Sustainable E-marketing of Selected Tourism Subjects from the Mediterranean Through Active Online Reputation Management	692
<i>František Pollák, Peter Dorčák, Nikola Račeta, and Nella Svetozarovová</i>	
Approaches to Analysis of the Green Transport Level	704
<i>David Staš, Radim Lenort, Pavel Wicher, and David Holman</i>	
Influence of Traffic Congestions on Safety Stock in Company	713
<i>Juraj Dubovec, Jana Makyšová, and Milan Kubina</i>	
SmartCityCom	
Place Attachment and Social Communities in the Concept of Smart Cities . . .	721
<i>Matej Jaššo and Dagmar Petříková</i>	
Generative Green Building Design, Computational Analysis of the Ecological Algorithm	729
<i>Martin Uhrík and Ondrej Kövér</i>	
Using the Means-Ends Approach to Understand the Value of Sustainability on the Property Market	738
<i>Michał Gluszek and Małgorzata Zięba</i>	
Being Smart in Project Management	750
<i>Karolína Hanulíková, Marcel Martišek, and Tomáš Uhlík</i>	
Economic and Social Effects of Urbanization - Case Study Analysis	760
<i>Anna Wojownik-Filipkowska</i>	
Involvement of Smart Cities Citizens to Global Cooperation in Research and Education in Space - Architectural and Urban Conditions	774
<i>Pavel Nahálka, Eva Oravcová, and Milan Andráš</i>	
Knowledge of University Knowledge Workers	783
<i>Jozef Hvorecký</i>	
Issues of Hazardous Materials Transport and Possibilities of Safety Measures in the Concept of Smart Cities	790
<i>Vladimír Adamec, Barbora Schüllerová, and Vojtěch Adam</i>	
Changes in the Demographic Structure of the Central City in the Light of the Suburbanization Process (The Study of Poznaň).	800
<i>Maria Trojanek, Justyna Tanaś, and Radosław Trojanek</i>	

Bratislava Towards Achieving the Concept of Smart City: Inspirations from Smart City Vienna.	812
<i>Andrej Adamuscin, Julius Golej, and Miroslav Panik</i>	
Urban Safety as Spatial Quality in Smart Cities	821
<i>Maroš Finka, Vladimír Ondrejička, and Lubomír Jamečný</i>	
ENERGY PARK BUILDING 03 – Certified Under Platinum LEED for Core & Shell v2.0	830
<i>Marzia Morena, Angela Silvia Pavesi, and Andrej Adamuščin</i>	
Energy-Efficient Buildings in Slovakia: Green Atrium	842
<i>Miroslav Panik, Andrej Adamuscin, and Julius Golej</i>	
Influence of Urban Renewal on the Assessment of Housing Market in the Context of Sustainable Socioeconomic City Development	851
<i>Sławomir Palicki and Izabela Rącka</i>	
Using Visual Lane Detection to Control Steering in a Self-driving Vehicle. . .	861
<i>Kevin McFall</i>	
Environmental Management as Part of a Socially Responsible Behavior in the Volkswagen Group.	874
<i>Marcela Basovnikova, Daniela Spirkova, and Roman Dubovy</i>	
Improving Urban Noise Monitoring Opportunities via Mobile Crowd-Sensing	885
<i>Marco Zappatore, Antonella Longo, Mario A. Bochicchio, Daniele Zappatore, Alessandro A. Morrone, and Gianluca De Mitri</i>	
Seniors' Life Satisfaction in Regions of the Czech Republic.	898
<i>Martina Rašticová, Nad'a Birčiaková, Ivana Kolářová, and Kateřina Rampulová</i>	
Comparison of Historical and Physical Models to Predict Marginal Electricity in the Context of Cloud Optimization.	909
<i>Constant Vallée-Schmitter, Thomas Dandres, Yves Lemieux, and Réjean Samson</i>	
How to Address Behavioral Issues in the Environmental Assessment of Complex Systems: Case of a Smart Building	911
<i>Julien Walzberg, Thomas Dandres, Mohamed Cheriet, and Réjean Samson</i>	
A Novel Approach to Enabling Sustainable Actions in the Context of Smart House/Smart City Verticals Using Autonomous, Cloud-Enabled Smart Agents	913
<i>Reza Farrahi Moghaddam, Yves Lemieux, and Mohamed Cheriet</i>	

Resource Consumption Assessment for Cloud Middleware	915
<i>Hicham Abdelfattah, Kim Khoa Nguyen, and Mohamed Cheriet</i>	
Session Based Communication for Vital Machine to Machine Applications. . .	917
<i>Marc-Olivier Arsenault, Hanen Garcia Gamardo, Kim-Khoa Nguyen, and Mohamed Cheriet</i>	
Optimization of Energy Consumption in Smart Homes: A New LCA-Based Demand Side Management Program	920
<i>Alexandre Milovanoff, Thomas Dandres, and Réjean Samson</i>	
RDF-Based Data Integration for Multi-modal Transport Systems.	922
<i>Stefano Braghin, Nuno Lopes, Yiannis Gkoufas, Rudi Verago, Adi Botea, Michele Berlingiero, and Veli Bicer</i>	
Author Index	925

Smart City 360°

First EAI International Summit, Smart City 360°,
Bratislava, Slovakia and Toronto, Canada, October
13-16, 2015. Revised Selected Papers

Leon-Garcia, A.; Lenort, R.; Holman, D.; Staš, D.;
Krutilova, V.; Wicher, P.; Cagáňová, D.; Špírková, D.;
Golej, J.; Nguyen, K. (Eds.)

2016, XXXIV, 927 p. 377 illus., Softcover

ISBN: 978-3-319-33680-0