2014 IEEE Symposium on Computational Intelligence in Vehicles and Transportation Systems

(CIVTS 2014)

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Thursday, December 11
9:20AM-10:00AM

CIVTS’14 Keynote Talk

*Multiagent Reinforcement Learning in Traffic and Transportation*
Ana Bazzan

10:20AM-12:00PM

CIVTS’14 Session 1
Chair: Justin Dauwels, Dipti Srinivasan and Ana Bazzan

10:20AM  *A GPU-Based Real-Time Traffic Sign Detection and Recognition System* .................. 1
Zhilu Chen, Xinming Huang, Ni Zhen and Haibo He

10:40AM  *Traffic Information Extraction from a Blogging Platform using Knowledge-based Approaches and Bootstrapping* .............................................................. 6
Jorge Aching, Thiago de Oliveira and Ana Bazzan

11:00AM  *Multiobjective Selection of Input Sensors for Travel Times Forecasting Using Support Vector Regression* ................................................................. 14
Jiri Petrlik, Otto Fucik and Lukas Sekanina

11:20AM  *Predicting Bikeshare System Usage Up to One Day Ahead* ........................................... 22
Romain Giot and Raphael Cherrier

11:40AM  *Battery-supercapacitor electric vehicles energy management using DP based predictive control algorithm* ................................................................. 30
Xiaofeng Lin, Meipin Hu, Shaojian Song and Yimin Yang

1:30PM-3:10PM

CIVTS’14 Session 2
Chair: Justin Dauwels, Dipti Srinivasan and Ana Bazzan

1:30PM  *Dynamic Ridesharing with Intermediate Locations* .................................................... 36
Kamel Aissat and Ammar Oulamara

1:50PM  *An Evolutionary Approach to Traffic Assignment* ...................................................... 43
Ana Bazzan, Daniel Cagara and Bjorn Scheuermann

2:10PM  *Car relocation for carsharing service: Comparison of CPLEX and Greedy Search* .... 51
Rabih Zakaria, Mohammad Dib, Laurent Moalic and Alexandre Caminada

2:30PM  *Evolving the Topology of Subway Networks using Genetic Algorithms* ...................... 59
Ana L. C. Bazzan and Silvio R. Dahmen

2:50PM  *Driver Distraction Detection By In-Vehicle Signal Processing* ..................................... 64
Seongsu Im, Cheolha Lee, Seokyoul Yang, Jinhak Kim and Byungyong You

3:30PM-5:10PM

Special Session: CIVTS’14 Session 3: Intelligent Vehicle Systems
Chair: Yi Lu Murphey, Mahmoud Abou-Nasr, Ishwar K Sethi, Robert Karlsen, and Chaomin Luo

3:30PM  *Trust-Based Controller for Convoy String Stability* ...................................................... 69
Dariusz Mikulski
3:50PM  Cloud Aided Semi-Active Suspension Control
Zhaojian Li, Ilya Kolmanovsky, Ella Atkins, John Michelini, Jianbo Lu and Dimitar Filev

4:10PM  Exploring the Mahalanobis-Taguchi Approach to Extract Vehicle Prognostics and Diagnostics
Michael Gosnell and Robert Woodley

4:30PM  Robust Obstacle Segmentation based on Topological Persistence in Outdoor Traffic Scenes
Chunpeng Wei, Qian Ge, Somrita Chattopadhyay and Edgar Lobaton

4:50PM  An Effective Search and Navigation Model to an Auto-Recharging Station of Driverless Vehicles
Chaomin Luo, Yu-Ting Wu, Mohan Krishnan, Mark Paulik, Gene Eu Jan and Jiyong Gao

Friday, December 12
9:30AM-10:30AM
CIVTS'14 Session 4
Chair: Justin Dauwels, Dipti Srinivasan and Ana Bazzan

9:30AM  Fitness function for evolutionary computation applied in dynamic object simulation and positioning
Marcin Wozniak

9:50AM  Autonomous Running Control System of an AGV by a Tablet PC based on the Wall-floor Boundary Line
Anar Zorig, Haginiwa Atsushi and Sato Hiroyuki

10:10AM  Fuzzy Logic Based Localization for Vehicular Ad Hoc Networks
Lina Altoaaimy and Imad Mahgoub

11:00AM-12:00PM
CIVTS'14 Session 5
Chair: Justin Dauwels, Dipti Srinivasan and Ana Bazzan

11:00AM  Genetic Adaptive A-Star Approach for Train Trip Profile Optimization Problems
Jin Huang, Lei Sun, Fangyu Du, Hai Wan and Xibin Zhao

11:20AM  Probabilistic modeling of navigation bridge officer's behavior
George Psarros

11:40AM  Behavior Characteristics of Mixed Traffic Flow on Campus
Mianfang Liu, Shengwu Xiong, Xiaohan Yu, Pengfeng Duan and Jun Wang

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