

2015 IEEE International Symposium on Intelligent Control (ISIC 2015)

**Sydney, Australia
21 – 23 September 2015**



**IEEE Catalog Number: CFP15INS-POD
ISBN: 978-1-4799-7789-5**

TABLE OF CONTENTS

Sensor Data Fusion Based on an Improved Dempster-Shafer Evidence Theory in Vehicular Cyber-Physical Systems	1
<i>Mengmeng Ma, Jiyao An, Zhong Huang, Zhangbao Cao</i>	
Displacement Estimation by Range Measurements and Application to Formation Control	6
<i>Myoung-Chul Park, Hyo-Sung Ahn</i>	
Rigid Formation Control with Prescribed Orientation	12
<i>Zhiyong Sun, Brian D.O. Anderson</i>	
Bearing-Based Formation Maneuvering.....	19
<i>Shiyu Zhao, Daniel Zelazo</i>	
Robustness of Discrete-Time Iterative Learning Control for Networked Control Systems with Data Dropouts	25
<i>Yan Geng, Hyo-Sung Ahn, Xiaoe Ruan</i>	
Writing Style Determination Using the KNN Text Model.....	31
<i>Dmitry Shalymov, Oleg Granichin, Zeev Volkovich, Natalia Kizhaeva</i>	
Uniform Coverage Structural Inspection Path-Planning for Micro Aerial Vehicles	37
<i>Kostas Alexis, Christos Papachristos, Roland Siegwart, Anthony Tzes</i>	
Posture Independent Stair Parameter Estimation	43
<i>Carsten Stahlschmidt, Alexandros Gavrilidis, Anton Kummert</i>	
On the Features of the Trajectories of Autonomous Discrete Systems Generated by a Multiplicity Factor of Eigenvalues of State Matrices.....	49
<i>Nina Vunder, Anatoliy Ushakov</i>	
Adaptive Optimal Tracking Control Applied for a Humanoid Robot Arm	55
<i>David Hemmi, Guido Herrmann, Jing Na, Muhammad Nasiruddin Mahyuddin</i>	
Adaptive Sharing of Sampling Rates among Software Based Controllers.....	61
<i>Rajorshee Raha, Soumyajit Dey, Pallab Dasgupta</i>	
Automatic Extrinsic Camera Parameters Estimation for a Mobile ToF Camera Application	68
<i>Alexandros Gavrilidis, Carsten Stahlschmidt, Jorg Velten, Anton Kummert</i>	
Parallel Guiding Virtual Fixtures: Control and Stability.....	74
<i>Gennaro Raiola, Pedro Rodriguez-Ayerbe, Xavier Lamy, Sami Tliba, Freek Stulp</i>	
A Predictor-Based Neural Modified DSC Approach to Distributed Formation Tracking of Networked Marine Surface Vehicles	80
<i>Zhouhua Peng, Dan Wang, Wei Wang, Lu Liu, Liang Diao</i>	
New Results on Stability of Fuzzy Time-Varying Delayed Systems	86
<i>Zhiguang Feng, Wei Xing Zheng</i>	
Amplitude Control of the Cantilever in the Transverse Dynamic Force Microscope.....	92
<i>Thang Nguyen, Christopher Edwards, Guido Herrmann, Toshiaki Hatano, Stuart C. Burgess, Mervyn J Miles</i>	
Controlling Formations with Double Integrator and Passive Actuation.....	98
<i>Soura Dasgupta, Brian D.O. Anderson</i>	
Adaptive Dynamic Programming Boundary Control of Uncertain Coupled Semi-Linear Parabolic PDE	104
<i>Behzad talaee, Sarangapani Jagannathan, John Singler</i>	
Control by Interconnection of a Manipulator Arm Using Reinforcement Learning	110
<i>Subramanya P. Nageshrao, Gabriel A. D. Lopes, Dimitri Jeltsema, R. Babuska</i>	
Formation Maneuvering with Collision Avoidance and Connectivity Maintenance	116
<i>Zhimin Han, Zhiyun Lin, Zhiyong Chen, Minyue Fu</i>	
Matrix Regressor Adaptive Observers for Battery Management Systems	122
<i>Benjamin Jenkins, Anuradha M. Annaswamy, Aleksandar Kojic</i>	
M-MRAC Backstepping for Systems with Unknown Virtual Control Coefficients	130
<i>Vahram Stepanyan, Kalmanje Krishnakumar</i>	
Adaptive H-Infinity Consensus Control of Multi-Agent Systems Preceded by Input Nonlinearities	137
<i>Yoshihiko Miyasato</i>	
Global Convergence of Formation in Multi-Agent Systems without Global Reference Frame	143
<i>Sung-Mo Kang, Hyo-Sung Ahn</i>	
Author Index	