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**Seoul, Korea
11-13 November 2013**

Editors:

Jang-Won Lee

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Content List of 3rd IFAC Symposium on Telematics Applications

Technical Program for Monday November 11, 2013

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|--|------------------------------------|
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| 16:20-16:40 | MoS1.1 |
| <i>Augmented Reality Navigation Paradigm for Time Delayed Teleoperation</i> , pp. 1-6. | |
| Srinivasan, Lakshminarasimhan | Univ. of Würzburg |
| Schilling, Klaus | Univ. Wuerzburg |
| 16:40-17:00 | MoS1.2 |
| <i>Blimp Based on Embedded Computer Vision and Fuzzy Control for Following Ground Vehicles</i> , pp. 7-12. | |
| Al-Jarrah, Rami | Siegen Univ. |
| Ait Jellal, Radouane | Siegen Univ. |
| Roth, Hubert | Univ. Siegen |
| 17:00-17:20 | MoS1.3 |
| <i>Evaluation of Vehicle Tracking for Traffic Monitoring Based on Road Surface Mounted Magnetic Sensors</i> , pp. 13-18. | |
| Kadhim, Ali | Luleå Univ. of Tech. |
| Birk, Wolfgang | Luleå Univ. of Tech. |
| Gustafsson, Thomas | Luleå Univ. of Tech. |
| 17:20-17:40 | MoS1.4 |
| <i>Image-Based Localization in the Wireless Sensor Network</i> , pp. 19-20. | |
| Baek, SeungMin | Yonsei Univ. |
| Kim, DaeEun | Yonsei Univ. |
| 17:40-18:00 | MoS1.5 |
| <i>Transparency Improved Sliding-Mode Control Design for Bilateral Teleoperation Systems by Using Virtual Manipulator Concept</i> , pp. 21-26. | |
| jafari, Aghil | Korea Univ. of Tech. and Education |
| Ryu, Jee-Hwan | Korea Univ. of Tech. and Education |

Technical Program for Tuesday November 12, 2013

| | |
|---|---------------------------------------|
| Tu1S1 | Maple |
| Session S2: Control through Networks, Robotic Networks (Regular Session) | |
| 10:45-11:06 | Tu1S1.1 |
| <i>Mobility-Aware Adaptive Transmission in the Mobile Ad-Hoc Network</i> , pp. 27-30. | |
| Lee, Jang-Won | Yonsei Univ. |
| Jung, Sinyoung | Yonsei Univ. |
| Roh, Hee-Tae | Yonsei Univ. |
| 11:06-11:27 | Tu1S1.2 |
| <i>Neural Network and Observer-Based Compensation of Networked Control Systems with Packet Dropout</i> , pp. 31-37. | |
| Lopez-Echevarria, Daniel | Oregon State Univ. |
| Magaña, Mario Edgardo | Oregon State Univ. |
| 11:27-11:48 | Tu1S1.3 |
| <i>Tracking Control of Nonholonomic Wheeled Mobile Robot Based on New Sliding Surface with Approach Angle</i> , pp. 38-43. | |
| Lee, Jun-Ku | Yonsei Univ. Control Engineering Lab. |
| Park, Jin Bae | Yonsei Univ. |
| Choi, Yoon Ho | Kyonggi Univ. |
| 11:48-12:09 | Tu1S1.4 |
| <i>Trajectory Planning for Car-Like Robots Using Rapidly Exploring Random Trees</i> , pp. 44-49. | |
| Heß, Robin | Univ. of Wuerzburg |
| Kempf, Florian | Univ. of Wuerzburg |
| Schilling, Klaus | Univ. Wuerzburg |
| 12:09-12:30 | Tu1S1.5 |
| <i>Cooperative Relay Scheme for Delay and Energy Constrained Multicast Network</i> , pp. 50-51. | |
| Ko, Byung Hoon | Yonsei Univ. |
| Jeon, Ki Jun | Yonsei Univ. |
| Lee, Seong Ro | Mokpo National Univ. |
| Kim, Kwang Soon | Yonsei Univ. |
| Tu2S2 | Maple |
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| <i>An Introduction to Socially Connected Machines: Characteristics and Applications</i> , pp. 52-56. | |
| Shim, Taehyoung | Yonsei Univ. |
| Kim, Dong Min | Yonsei Univ. |
| Kim, Seong-Lyun | Yonsei Univ. |
| 13:50-14:10 | Tu2S2.2 |
| <i>Design and Development of a Robot Teleoperation System Using Duplex WebSockets Suitable for Variable Bandwidth Networks</i> , pp. 57-61. | |
| Srinivasan, Lakshminarasimhan | Univ. of Würzburg |
| Scharnagl, Julian | Univ. Würzburg |
| Xu, Zhihao | Univ. of Wuerzburg |
| Färber, Nicolas | Univ. of Würzburg |
| Kumar Babu, Dinesh | Univ. of Würzburg |
| Schilling, Klaus | Univ. Wuerzburg |
| 14:10-14:30 | Tu2S2.3 |
| <i>Joint Random Access Channel Allocation and Load Control for Machine-To-Machine Communications in Cellular Networks</i> , pp. 62-67. | |
| Tribudi Wiriaatmadja, Dimas | Seoultech |
| Choi, Kae Won | Seoultech |
| 14:30-14:50 | Tu2S2.4 |
| <i>Analysis of Wireless Networks for Satellite Swarm Missions</i> , pp. 68-73. | |
| Freimann, Andreas | Univ. of Würzburg |
| Rummelshagen, Mirko | Bernern & Mattner Systemtechnik GmbH |
| Reichel, Florian | Univ. Würzburg |
| Marszalek, Michael | Bernern & Mattner |
| Schmidt, Marco | Univ. Wuerzburg |

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|--|--|
| Schilling, Klaus | Univ. Wuerzburg |
| 14:50-15:10 | Tu2S2.5 |
| <i>Diagnosis of Cables in Nuclear Power Plants Using Joint Time-Frequency Domain Reflectometry</i> , pp. 74-78. | |
| Lee, Chun-Kwon | Yonsei Univ. |
| Coats, David Lee | Univ. of South Carolina |
| Lee, Chun-Ku | Yonsei Univ. |
| Chang, Seung-Jin | Yonsei Univ. |
| Park, Jin Bae | Yonsei Univ. |
| Shin, Yong-June | Yonsei Univ. |
| Tu3S3 | Maple |
| Session S4: Tele-Operations (Regular Session) | |
| 15:30-15:50 | Tu3S3.1 |
| <i>Intervehicular Sensor Fusion for Situation Awareness</i> , pp. 79-82. | |
| Choi, Baehoon | Yonsei Univ. |
| An, Jhonghyen | Yonsei Univ. |
| Kim, Beomseong | Yonsei Univ. |
| Kim, Euntai | Yonsei Univ. Seoul |
| 15:50-16:10 | Tu3S3.2 |
| <i>Analysis of WebSockets As the New Age Protocol for Remote Robot Tele-Operation</i> , pp. 83-88. | |
| Srinivasan, Lakshminarasimhan | Univ. of Würzburg |
| Scharnagl, Julian | Univ. Würzburg |
| Schilling, Klaus | Univ. Wuerzburg |
| 16:10-16:30 | Tu3S3.3 |
| <i>Form Follows Vision – User-Centred Interface Design for Rail Traffic Controllers’ Workplaces</i> , pp. 89-93. | |
| Gripenkoven, Jan | German Aerospace Center, Inst. of Transportation Systems |
| Naumann, Anja | German Aerospace Center |
| Bhattacharyya, Abhinav | Assam Engineering Coll. - Guwahati |
| Lemmer, Karsten | German Aerospace Center, Inst. of Transportation Systems |

Technical Program for Wednesday November 13, 2013

| We1S1 | | Maple |
|---|--|----------------------------|
| Session S5: Control of Networks, Optimization (Regular Session) | | |
| 09:00-09:20 | | We1S1.1 |
| <i>Multimedia Communications with Large-Scale Antennas</i> , pp. 94-95. | | |
| kim, soojin | | yonsei Univ. |
| Jong-Seok, Lee | | yonsei Univ. |
| Chan-Byoung, Chae | | Yonsei Univ. |
| 09:20-09:40 | | We1S1.2 |
| <i>Modeling the Interference Generated from Car Base Stations towards Indoor Femto-Cells</i> , pp. 96-101. | | |
| Cho, Byungjin | | Aalto Univ. |
| Koufos, Konstantinos | | Aalto Univ. |
| Ruttik, Kalle | | Aalto Univ. |
| Jäntti, Riku | | Aalto Univ. |
| 09:40-10:00 | | We1S1.3 |
| <i>Dwell-Time Based Cell Association with Carrier Aggregation for Heterogeneous Cellular Networks</i> , pp. 102-104. | | |
| Choi, Woori | | Yonsei Univ. |
| Sang, Young Jin | | Yonsei Univ. |
| Kim, Kwang Soon | | Yonsei Univ. |
| 10:00-10:20 | | We1S1.4 |
| <i>A Resource Allocation Scheme in Half Duplex FDD (H-FDD) Systems for M2M Communications</i> , pp. 105-106. | | |
| Jihwan P, choi | | DGIST |
| Jaesub, shin | | DGIST |
| Choi, Ji-Woong | | DGIST |
| We2SB | | Maple |
| Session S6: Networked Robotic Systems 1 (Invited Session) | | |
| Organizer: Heß, Robin | | Univ. of Wuerzburg |
| Organizer: Eck, Daniel | | Univ. of Würzburg |
| Organizer: Schilling, Klaus | | Univ. Wuerzburg |
| 10:50-11:10 | | We2SB.1 |
| <i>Wide Range Global Path Planning for a Large Number of Networked Mobile Robots Based on Generalized Voronoi Diagrams (I)</i> , pp. 107-112. | | |
| Wang, Qi | | Leibniz Univ. Hannover |
| Langerwisch, Marco | | Leibniz Univ. Hannover |
| Wagner, Bernardo | | Leibniz Univ. Hannover |
| 11:10-11:30 | | We2SB.2 |
| <i>Maintenance and Telematics for Robots (MainTelRob) (I)</i> , pp. 113-118. | | |
| Sittner, Felix Christian Alexander | | Zentrum für Telematik e.V. |
| Aschenbrenner, Doris | | Zentrum für Telematik e.V. |
| Fritscher, Michael | | Zentrum für Telematik e.V. |
| Kheirkhah, Ali | | Zentrum für Telematik e.V. |
| Krauss, Markus | | Zentrum für Telematik e.V. |
| Schilling, Klaus | | Univ. Wuerzburg |
| 11:30-11:50 | | We2SB.3 |
| <i>Irma3D - an Intelligent Robot for Mapping Applications (I)</i> , pp. 119-124. | | |
| Nuchter, Andreas | | Jacobs Univ. Bremen gGmbH |
| Elseberg, Jan | | Jacobs Univ. Bremen gGmbH |
| Borrmann, Dorit | | Jacobs Univ. Bremen gGmbH |
| 11:50-12:10 | | We2SB.4 |
| <i>Knowledge Management and Routing in Embodied Agents Network (I)</i> , pp. 125-131. | | |
| Moriconi, Claudio | | ENEA |
| Snels, Claudia | | ENEA |
| 12:10-12:30 | | We2SB.5 |
| <i>A Distributed Network of Microcontrollers for Mobile Robots (I)</i> , pp. 132-137. | | |
| Eck, Daniel | | Univ. of Würzburg |

Saalmüller, Jens
Schilling, Klaus

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| We3S3 | Maple |
|---|---|
| Session S7: Networked Robotic Systems 2 (Invited Session) | |
| Organizer: Heß, Robin | Univ. of Wuerzburg |
| Organizer: Eck, Daniel | Univ. of Würzburg |
| Organizer: Schilling, Klaus | Univ. Wuerzburg |
| 13:30-13:50 | We3S3.1 |
| <i>Remote Biological and Robotic Sensor Networks for Environmental Monitoring (I)</i> , pp. 138-143. | |
| Heß, Robin | Univ. of Wuerzburg |
| Kempf, Florian | Univ. of Wuerzburg |
| Tautz, Jürgen | Univ. of Wuerzburg |
| Schilling, Klaus | Univ. Wuerzburg |
| 13:50-14:10 | We3S3.2 |
| <i>Signal Strength Based MANET Routing Protocol: Cost Calculation and Performance Evaluation (I)</i> , pp. 144-149. | |
| Necsulescu, Philip | Univ. Würzburg |
| Schilling, Klaus | Univ. Wuerzburg |
| 14:10-14:30 | We3S3.3 |
| <i>Principles in Framework Design Applied in Networked Robotics (I)</i> , pp. 150-155. | |
| Reichardt, Max | Robotics Res. Lab. Department of Computer Sciences, Univ. |
| Föhst, Tobias | Robotics Res. Lab. Department of Computer Sciences, Univ. |
| Fleischmann, Patrick | Robotics Res. Lab. Department of Computer Sciences, Univ. |
| Arndt, Michael | Robotics Res. Lab. Department of Computer Sciences, Univ. |
| Berns, Karsten | Robotics Res. Lab. Department of Computer Sciences, Univ. |