

11:45AM *Control Design of Nonlinear Networked Control Systems via Takagi-Sugeno Fuzzy Model*
Jun Yoneyama

Computational Intelligence for Engineering Solutions V, Chair: Liam Comerford, Room: Nautilus (Kalia Tower)..... 143

- 10:45AM *Multi-Objective Knowledge-Based Strategy for Process Parameter Optimization in Micro-Fluidic Chip Production*
Alexandru-Ciprian Zavoianu, Edwin Lughofer, Robert Pollak, Pauline Meyer-Heye, Christian Eitzinger and Thomas Radauer
- 11:15AM *Revealing Properties of Structural Materials by Combining Regression-based Algorithms and Nano Indentation Measurements*
Sebastian Huhn, Heike Sonnenberg, Stephan Eggersgluss, Brigitte Clausen and Rolf Drechsler
- 11:45AM *Public Private Partnership: A Design Issue*
Qingbin Cui, Xinyuan Zhu and Alex D'Alessio
- 12:15PM *Seabed Sediment Classification of Side-scan Sonar Data Using Convolutional Neural Networks*
Tim Berthold, Artem Leichter, Bodo Rosenhahn, Volker Berkahn and Jennifer Valerius

Computational Intelligence Applications in Smart Grid V, Chair: Sri Nikhil Gupta Gourisetti, Room: Lehua (Kalia Tower)..... 144

- 10:45AM *Fault Tolerant Fusion of Office Sensor Data using Cartesian Genetic Programming*
Peter Bentley and Soo Ling Lim
- 11:15AM *Anomaly Detection in Smart Grids with Imbalanced Data Methods*
Christian Promper, Engel Dominik and Green Robert
- 11:45AM *An Introduction to Buildings Cybersecurity Framework (BCF)*
Michael Mylrea, Sri Nikhil Gupta Gourisetti and Andrew Nicholls
- 12:15PM *Multi-Scenario Use Case based Demonstration of Buildings Cybersecurity Framework Webtool*
Sri Nikhil Gupta Gourisetti, Michael Mylrea, Easton Gervais and Sraddhanjali Bhadra

Computational Intelligence, Cognitive Algorithms, Mind, and Brain II, Chair: Alessandro Di Nuovo, Room: Kahili (Kalia Tower)..... 145

- 10:45AM *Neuro-Energetic Aspects of Cognition - The Role of Pulse-Wave-Pulse Conversion in the Interpretation of Brain Imaging Data*
Raymond Noack, Joshua Davis, Chetan Manjesh and Robert Kozma
- 11:15AM *Chunking Mechanisms for a Self Improving Associative Memory Model*
Peter Kimani Mungai and Runhe Huang
- 11:45AM *EEG Analysis for Short Term Memory Modeling in Visually Explored Shape Recognition Tasks*
Lidia Ghosh, Amit Konar, Pratyusha Rakshit, Anca L. Ralescu and Atulya K. Nagar
- 12:15PM *Mutual Information Maximization for Improving and Interpreting Multi-Layered Neural Network*
Ryotaro Kamimura

Computational Intelligence in Robotic Rehabilitation and Assistive Technologies II, Chair: Seongjoo Shin, Room: Hibiscus 1 (Kalia Tower) 147

- 10:45AM *Synergistic Fibroblast Optimization Based Improved Reinforcement Learning For Intelligent Assistive Device*
Subashini Parthasarathy, Dhivyaprabha Thookanayakanpalayam Thyagarajan, Krishnaveni Marimuthu and Vedha Viyas Gopalakrishnan
- 11:15AM *Using Machine Learning Based on Eye Gaze to Predict Targets: An Exploratory Study*
Javier Leonardo Castellanos Cruz, Maria Fernanda Gomez Medina and Kimberley Dawn Adams
- 11:45AM *Does Appearance Matter? Validating Engagement in Therapy Protocols with Socially Interactive Humanoid Robots*
Breanna Lee, Jin Xu and Ayanna Howard
- 12:15PM *Accident Prediction Based on Motion Data for Perception-Assist with a Power-Assist Robot*
Kazuo Kiguchi and Ryosuke Matsuo