

20th IFIP World Computer Congress

Milano, Italy 7-10 September 2008

TC10 Conference on

Biologically Inspired Cooperative Computing – BICC 2008



Programme

Monday, September 8 th 2008	
09.00–10.30	<p style="text-align: center;">Inspiration Based on Insect Behaviors</p> <p>Heuristics for Uninformed Search Algorithms in Unstructured P2P Networks Inspired by Self-Organizing Social Insect Models <i>Prithviraj Dasgupta and Erik Antonson</i></p> <p>Congestion Control in Ant Like Moving Agent Systems <i>Alexander Scheidler, Daniel Merkle and Martin Middendorf</i></p> <p>Resource-Aware Clustering of Wireless Sensor Networks Based on Division of Labor in Social Insects <i>Tales Heimfarth, Dalimir Orfanus and Flávio Rech Wagner</i></p>
10.30–11.00	Coffee break
11.00–12.00	<p>Keynote speaker</p> <p><i>Marco Dorigo</i></p>
12.00–14.30	WCC Keynotes
14.30–15.30	<p style="text-align: center;">Sensors, Actuators and Networks</p> <p>Self-Stabilizing Automata <i>Torben Weis, Arno Wacker</i></p> <p>Experiments with Biologically-Inspired Methods for Service Assignment in Wireless Sensor Networks <i>Tales Heimfarth, Peter Janacik</i></p>
15.30–16.30	Coffee break
16.30–18.30	<p style="text-align: center;">Robotics and Multi-Agent Systems</p> <p>Evolving Collision Avoidance on Autonomous Robots <i>Lukas König and Hartmut Schmeck</i></p> <p>Local Strategies for connecting stations by small robotic networks <i>Friedhelm Meyer auf der Heide and Barbara Schneider</i></p> <p>Measurement of robot similarity to determine the best demonstrator for imitation in a group of heterogeneous robots <i>Raphael Golombek, Willi Richert, Bernd Kleinjohann and Philipp Adelt</i></p> <p>Distributed Fault-Tolerant Robot Control Architecture Based on Organic Computing Principles <i>Adam El Sayed Auf, Marek Litza and Erik Maehle</i></p>



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Tuesday, September 9th 2008

Immunocomputing and Biological-Inspiration	
09.00–10.30	<p>Intrusion Detection via Artificial Immune System: a Performance-based Approach <i>Andrea Visconti, Nicolás Fusi and Hooman Tahayori</i></p> <p>Immuno-repairing of FPGA designs <i>Norma Montealegre and, Franz Rammig</i></p> <p>An Organic Computing Approach to Sustained Real-time Monitoring <i>Rainer Buchty, David Kramer and Wolfgang Karl</i></p>
10.30–11.00	Coffee break
11.00–12.00	<p>Keynote speaker</p> <p>Immuno-engineering <i>Jon Timmis, Emma Hart, Andy Hone, Mark Neal, Adrian Robins, Susan Stepney and Andy Tyrrell</i></p>
12.00–14.30	WCC Keynotes
14.30–16.00	<p>Applications</p> <p>A Case Study in Model-driven Synthetic Biology <i>David Gilbert, Monika Heiner, Susan Rosser, Rachel Fulton, Xu Gu and Maciej Trybilo</i></p> <p>Image Segmentation by a Network of Cortical Macrocolumns with Learned Connection Weights <i>Markus Lessman and Rolf P. Würtz</i></p> <p>Integrating Emotional Competence into Man-Machine Collaboration <i>Natascha Esau, Lisa Kleinjohann and Bernd Kleinjohann</i></p>
16.00–16.30	Coffee break
16.30–17.30	<p>Hardware Issues</p> <p>Self-optimized Routing in a Network-on-a-Chip <i>Wolfgang Trumler, Sebastian Schlingmannm Theo Ungerer, Jun Ho Bahn, Nader Bagherzadeh</i></p> <p>On Robust Evolution of Digital Hardware <i>Tobias Knieper, Bertrand Defo, Paul Kaufmann and Marco Platzner</i></p>
17.30–18.30	<p>Collaboration</p> <p>A Model of Self-Organizing Collaboration <i>Rumen Andreev</i></p> <p>Guiding exploration by combining individual learning and imitation in societies of autonomous robots <i>Willi Richert, Oliver Niehörster and Florian Klomp maker</i></p>