2013 IEEE/WIC/ACM International Joint Conferences on Web Intelligence and Intelligent Agent Technology

17-20 November 2013 • Atlanta, Georgia
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Thank you to our Sponsors!
Hosting Sponsor

Georgia State University, an enterprising urban public research university, is a national leader in graduating students from widely diverse backgrounds. The university offers 55 undergraduate and graduate degree programs in more than 250 fields of study in its eight colleges and schools.

About the Department of Computer Science

The Department of Computer Science offers programs leading to the B.S., M.S., and Ph.D. degrees. The Ph.D. program, which first admitted students in 2001, has produced over 70 graduates and has a current enrollment of about 75. The department's Ph.D. program is nationally competitive and ranks among the best in the Southeast, according to National Research Council data. The program also has a high rank in several categories at the PhDs.org website.

Active research areas in the department include bioinformatics, graphics and visualization, networks and distributed systems, and algorithms. The department emphasizes interdisciplinary research.

Current projects involve collaborations with the Departments of Biology, Chemistry, Physics and Astronomy, and Mathematics and Statistics, among others. In addition to running its own bioinformatics program, the Department of Computer Science participates in Georgia State’s Molecular Basis of Disease and Brains and Behavior programs.

Many department faculty are leading experts in their fields; they serve on panels and study sections at agencies such as NIH and NSF, on journal editorial boards, and as officers in professional societies. The department is also home to the editorial offices of four book series and two journals. Faculty members are supported by many grants from NSF, NIH, and other agencies. The department’s annual research budget exceeds one million dollars.

Six faculty members (Dr. Zhipeng Cai, Dr. Xiaojun Cao, Dr. Xiaolin Hu, Dr. Yingshu Li, Dr. WenZhan Song, and Dr. Raheem Beyah, now at Georgia Tech) have won awards from the National Science Foundation’s Faculty Early Career Development (CAREER) Program. The CAREER grant, which emphasizes high-quality research and novel education initiatives, is the most competitive and prestigious award from NSF to young faculty members in science and engineering fields.
The 2013 IEEE/WIC/ACM International Conference on Web Intelligence (WI 2013) is held jointly with the 2013 IEEE/WIC/ACM International Conference on Intelligent Agent Technology (IAT 2013). The WI 2013 and IAT 2013 conferences are sponsored and co-organized by the IEEE Computer Society Technical Committee on Intelligent Informatics (TCII), Web Intelligence Consortium, and ACM SIGART.

Web Intelligence focuses on scientific research and applications by jointly using Artificial Intelligence (AI) (e.g., knowledge representation, planning, knowledge discovery and data mining, intelligent agents, and social network intelligence) and advanced Information Technology (IT) (e.g., wireless networks, ubiquitous devices, social networks, semantic Web, wisdom Web, big data mining, green computing, and data/knowledge grids) for the next generation of Web-empowered products, systems, services, and activities. The main research areas of WI include Web Intelligence Foundations, World Wide Wisdom Web, Web Information Retrieval and Filtering, Semantics and Ontology Engineering, Web Mining and Farming, Social Networks and Ubiquitous Intelligence, Knowledge Grids and Grid Intelligence, Web Agents, Services and Support Systems, Intelligent Human-Web Interaction, Intelligent e-Technology, Intelligent Cloud Web Systems for Big Data Mining, and Intelligent Green Web Systems.

We have received 162 paper submissions from 30 countries for WI 2013. After a rigorous peer review process undertaken by the Program Committee members and Non-PC reviewers, we have accepted 41 regular papers and 47 short papers, which represent acceptance rates of 25% for regular papers and 29% for short papers, respectively. We truly congratulate authors of accepted papers, and also sincerely thank all authors of non-accepted papers for their interests in WI 2013.

We are grateful to the following distinguished speakers for the delivery of keynotes:

- Professor John E. Hopcroft, Cornell University, USA
- Professor Ophir Frieder, Georgetown University, USA
- Professor Victor Lesser, University of Massachusetts Amherst, USA
- Professor Scott Fahlman, Carnegie Mellon University, USA
It is impossible to organize any high quality conference without enormous support and expertise of many outstanding researchers and leaders. Our sincere thanks are due to all chairs, co-chairs, vice-chairs, WIC advisory board members, WIC technical committee & WI steering committee members, program committee members, reviewers, conference secretariat, the conference web support team and the cyber-chair for their great contributions. Our special thanks go to Dr. Juzhen Dong for her continuous and instant support. We would also like to thank industry sponsors (eBay and Facebook) for supporting WI 2013, thank Interaction Design Foundation and KDnuggets for helping WI 2013 to receive wider publicity by posting conference announcements in their respective web sites, and thank the staff at the IEEE Computer Society Press for their professional support in compiling the proceedings.

We hope you will have rewarding experiences at WI 2013, and a very enjoyable stay in Atlanta!

Yours sincerely,

Yi Pan  
Conference General Chair

Vijay Raghavan  
Program Committee Chair

Stefan Rueger, Takahira Yamaguchi, Yanqing Zhang  
WI 2013 Program Co-Chairs
IAT 2013 Welcome Message
from Conference Chairs and Program Chairs

It is our great pleasure to welcome all delegates to the 2013 IEEE/WIC/ACM International Conference on Intelligent Agent Technology (IAT 2013). This year IAT 2013 is the 12th edition of its series. On behalf of the IAT 2013 Conference Committees, we would like to thank you for your participation and we do hope that you will enjoy the conference technical and social programs as well as the lovely city Atlanta.

The 2013 IEEE/WIC/ACM International Conference on Intelligent Agent Technology (IAT 2013) is held jointly with the 2013 IEEE/WIC/ACM International Conference on Web Intelligence (WI 2013). The IAT 2013 and WI 2013 conferences are sponsored and co-organized by the IEEE Computer Society Technical Committee on Intelligent Informatics (TCII), Web Intelligence Consortium, and ACM SIGART.

IAT 2013 serves as a leading international forum to bring together researchers and practitioners from diverse fields, such as computer science, information technology, business, education, systems engineering, and robotics, to examine the design principles and performance characteristics of various approaches in intelligent agent technology. The main topics considered at IAT 2013 include Autonomy-Oriented Computing (AOC), Agent and Multi-Agent Systems Modeling, Agent and Multi-Agent Systems Engineering, Coordination, Autonomous Auctions and Negotiation, Autonomous Knowledge and Information Agents, Distributed Problem Solving, and Applications.

This year we have received 101 papers submitted from 32 countries for IAT 2013. After a rigorous peer review process undertaken by the Program Committee and Non-PC reviewers, we have accepted 31 regular papers and 27 short papers, which represent an acceptance rate of around 31% for regular paper and 27% for short paper, respectively. We congratulate authors of accepted papers, and also sincerely thank all authors of non-accepted papers for their interests in IAT 2013.

We are grateful to the following distinguished guest speakers for the delivery of keynotes/invited addresses:

- Professor John E. Hopcroft, Cornell University, USA
- Professor Ophir Frieder, Georgetown University, USA
- Professor Victor Lesser, University of Massachusetts Amherst, USA
- Professor Scott Fahlman, Carnegie Mellon University, USA
It is impossible to organize a high quality conference without enormous support and expertise of many top class researchers and leaders. Our sincere thanks are due to all chairs, co-chairs, vice-chairs, WIC advisory board members, WIC technical committee & WI/IAT steering committee members, program committee members, reviewers, conference secretariat, conference web support team and Cyber-Chair for their wonderful contribution. We would also like to thank industry sponsors (eBay and Facebook) for supporting WI 2013, thank Interaction Design Foundation and KDnuggets for helping WI 2013 to receive wider publicity by posting conference announcements in their respective web sites, and thank the staff at the IEEE Computer Society Press for their professional support in compiling the proceedings.

We hope you will find IAT 2013 a rewarding experience, and wish you have a very enjoyable stay in Atlanta alongside the conference!

Yours sincerely,

Yi Pan  
Conference General Chair

Vijay Raghavan  
Program Committee Chair

Xiaolin Hu, Churn-Jung Liau, Jan Treur  
IAT 2013 Program Co-Chairs
WI-IAT Workshop Welcome Message
from Conference Co-Chairs

The 2013 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology Workshops (2013 WI-IAT Workshops) aim to stimulate and facilitate active exchange, interaction and comparison of approaches, methods and ideas related to specific topics, both theoretical and applied, in the general areas related to Web Intelligence and Intelligent Agent Technology. The workshops will provide an informal setting where participants will have the opportunity to discuss specific technical topics and new and emerging trends in an atmosphere that fosters the active exchange of ideas.

The workshops program at WI-IAT 2013 includes nine workshops, 2 special sessions, one industry track, and a poster session, representing a wide variety of selected special topics. The nine workshops received 100 submissions in total and accepted 54 papers. Each paper submitted to the workshops was reviewed by at least two program committee members and, using these reviews, the workshop organizers selected papers for inclusion in the workshop proceedings and presentation at the conference. The special invited session on Intelligent Methods for Web and Machine Big Data Analytics is in response to the fast growing trend on analytics for Big Data and the special session on Internet of Things is in response to latest advances in hardware and software aspects of uniquely identified connected objects in daily life.

We express our sincere gratitude to all the workshop organizers. Their professionalism and hard work made our tasks much easier. We also appreciate the guidance and suggestions we received from several current and past members of the WI-IAT organization, especially Vijay Raghavan and Juzhen Dong.

We are grateful to Juzhen Dong for her excellent technical assistance in ensuring smooth functioning of the paper management functions. Finally, we thank all authors for their submissions and all attendees for their participation. To have stimulating and thought provoking workshops would not be possible without their support.

William K Cheung and Raj Sunderraman
Keynote and Invited Talks

Prof. John E. Hopcroft

Future Directions in Computer Science Research

John E. Hopcroft is the IBM Professor of Engineering and Applied Mathematics in Computer Science at Cornell University. He received both his M.S. (1962) and Ph.D. (1964) in electrical engineering from Stanford University, and spent three years on the faculty of Princeton University. He joined the Cornell faculty in 1967, and served as chairman of the Department of Computer Science from 1987 to 1992. Hopcroft's research centers on theoretical aspects of computing, especially analysis of algorithms, automata theory, and graph algorithms.

He has coauthored four books on formal languages and algorithms with Jeffrey D. Ullman and Alfred V. Aho. His most recent work is on the study of information capture and access.

He was honored with the A. M. Turing Award in 1986. In 1992, he was appointed by President Bush to the National Science Board (NSB), which oversees the National Science Foundation (NSF), and served through May 1998. From 1995-98, Hopcroft served on the National Research Council's Commission on Physical Sciences, Mathematics, and Applications.

Prof. Ophir Frieder

Collective Intelligence

Ophir Frieder holds the Robert L. McDevitt, K.S.G., K.C.H.S. and Catherine H. McDevitt L.C.H.S. Chair in Computer Science and Information Processing and is Chair of the Department of Computer Science at Georgetown University. He is also Professor of Biostatistics, Bioinformatics and Biomathematics in the Georgetown University Medical Center. He is a Fellow of the AAAS, ACM, and IEEE.
Personal Reflections on Self-Awareness and Adaptability in Agent and Multiagent Systems

Victor R. Lesser received his B.A. in Mathematics from Cornell University in 1966, and the Ph.D. degree in Computer Science from Stanford University in 1973. He then was a post-doc/research scientist at Carnegie-Mellon University, working on the Hearsay-II speech understanding system. He has been a professor in the School of Computer Science at the University of Massachusetts Amherst since 1977, and was named Distinguished University Professor of Computer Science in 2009.

Professor Lesser is a Founding Fellow of the American Association of Artificial Intelligence (AAAI), and is considered a leading researcher in the areas of blackboard systems, multi-agent/ distributed AI, and real-time AI. He has also made contributions in the areas of computer architecture, signal understanding, diagnostics, plan recognition, and computer-supported cooperative work. He has worked in application areas such as sensor networks for vehicle tracking and weather monitoring, speech and sound understanding, information gathering on the internet, peer-to-peer information retrieval, intelligent user interfaces, distributed task allocation and scheduling, and virtual agent enterprises.

Natural Language Understanding Using Background Knowledge

Dr. Scott E. Fahlman is a Research Professor of Computer Science and Language Technologies at Carnegie Mellon University. He has worked in many areas of AI and Computer Science, including planning, machine learning, artificial neural networks, natural language understanding, image processing, parallel computing for AI, and the development of the Common Lisp language. His current research is in the area of symbolic knowledge representation, focusing on the development of the Scone knowledge-base system and its applications.

Dr. Fahlman received his Ph.D. degree from the Massachusetts Institute of Technology (in the Artificial Intelligence Lab) in 1977. He is a Fellow of the Association for the Advancement of Artificial Intelligence (AAAI).
WI- IAT Conference Organization

Conference General Chair:
Prof. Yi Pan, Georgia State University, USA

PC Chair:
Prof. Vijay Raghavan, University of Louisiana at Lafayette, USA

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Prof. Stefan Rueger, The Open University, UK
Prof. Yanqing Zhang, Georgia State University, USA

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Dr. Churn-Jung Liau, Academia Sinica, Taiwan
Prof. Jan Treur, VU University Amsterdam, The Netherlands

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Prof. Raj Sunderraman, Georgia State University, USA

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Dr. Wenjun Zhou, University of Tennessee – Knoxville, USA
Proceedings Chair:
Dr. Ryan Benton, University of Louisiana at Lafayette, USA

Panels Co-Chairs:
Dr. Ling Liu, Georgia Tech. USA
Dr. Bong Chih How, Universiti Malaya at Sarawak, Malaysia

Tutorials Co-Chairs:
Prof. Elizabeth Diaz, University of Virgin Islands, USA
Dr. Justin Zhan, North Carolina A&T State University, USA

Demo / Posters Co-Chairs:
Dr. Zejin (Jason) Ding, Barracuda Networks, USA
Dr. Cheah Wai Shiang, Universiti Malaya at Sarawak, Malaysia
Dr. Saurav Karmakar, Digital Reasoning Systems, USA

Finance Chair and CyberChair-master:
Juzhen Dong, WI-Lab/WIC, Japan

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Jinglong Wu, Okayama University, Japan  
Xindong Wu, University of Vermont, USA  
Yiyu Yao, University of Regina, Canada
## PROGRAM AT A GLANCE
### NOVEMBER 17, 2013

<table>
<thead>
<tr>
<th>Time</th>
<th>Venue</th>
<th>Room 1201</th>
<th>Room 1202</th>
<th>Room 1203</th>
<th>Room 1204</th>
<th>Room 1205</th>
<th>Room 1206</th>
<th>Room 1207</th>
<th>Room 1401</th>
<th>Room 1402</th>
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<tbody>
<tr>
<td>All day</td>
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<td>9:30am-10:30am</td>
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<td>AS-BPM</td>
<td>SPUnd</td>
<td>WOSWI</td>
<td>WPRSM</td>
<td>KDO</td>
<td>HAI</td>
<td>BWMD</td>
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<td>AS-BPM</td>
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<td>WOSWI</td>
<td>WPRSM</td>
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<td>12:30pm-2:00pm</td>
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<td>2:00pm-3:30pm</td>
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<td>NLPOE</td>
<td>DOCMAS</td>
<td>SPUnd</td>
<td>WOSWI</td>
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<td>BWMD</td>
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<td>3:30pm-4:00pm</td>
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<tr>
<td>4:00pm – 5:00pm</td>
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<td>NLPOE</td>
<td>DOCMAS</td>
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<td>KDO</td>
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### Workshop Session  
(9:30am – 5:00pm)
<table>
<thead>
<tr>
<th>Time</th>
<th>Sessions (8:00am – 7:00pm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All day</td>
<td>On-Site Registration 7TH Floor Lobby</td>
</tr>
<tr>
<td>8:00am – 10:10am</td>
<td>Conference Opening, Welcome Remarks and Keynote Speeches 7TH Floor Atlanta Ballroom (B,C,D)</td>
</tr>
<tr>
<td>8.10am – 9:10am</td>
<td>WI-IAT Joint Keynote Speaker Prof. Ophir Frieder “Collective Intelligence” 7th Floor Atlanta Ballroom (B,C,D)</td>
</tr>
<tr>
<td>9:10am – 10:10am</td>
<td>WI-IAT Joint Keynote Speaker Prof. Victor Lessor “Personal Reflections on Self-Awareness and Adaptability in Agent and Multi-agent Systems” 7th Floor Atlanta Ballroom (B,C,D)</td>
</tr>
<tr>
<td>10:10am – 10:30am</td>
<td>Coffee Break 7th Floor Lobby</td>
</tr>
<tr>
<td>Venue</td>
<td>Room 1202 Room 1203 Room 1204 Room 1205 Room 1206 Room 1207 Farewell</td>
</tr>
<tr>
<td>10:30am-12:15pm</td>
<td>IAT Session 1 Agents in Social Networks IAT Session 2 Optimization and Distributed Problem Solving WI Session 6 Web Data Analysis WI Session 10 Personal Web Data Mining WI Session 11 Big Web Data Mining Tutorial Software Agent Architectures Workshop Session ODMWI Lunch</td>
</tr>
<tr>
<td>12:15pm – 1:30pm</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:30pm-3:00pm</td>
<td>IAT Session 3 Agreement Technologies IAT Session 4 Agents in Smart Energy Management WI Session 1 Web Intelligence Foundations I WI Session 8 Web Semantics WI Session 17 Web Services Workshop Session ODMWI</td>
</tr>
<tr>
<td>3:00pm – 3:30pm</td>
<td>Coffee Break 7th Floor Lobby</td>
</tr>
<tr>
<td>3:30pm-5:00pm</td>
<td>WI-IAT Conference Panel: Connecting Big Data with Web Intelligence 7th Floor Atlanta Ballroom (B,C,D)</td>
</tr>
<tr>
<td>5:00pm – 7:00pm</td>
<td>WI-IAT Conference Reception 7th Floor Augusta Room</td>
</tr>
</tbody>
</table>
# PROGRAM AT A GLANCE
## NOVEMBER 19, 2013

<table>
<thead>
<tr>
<th>Time</th>
<th>Sessions (8:00am – 9:00pm)</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All day</strong></td>
<td>On-Site Registration 7th Floor Lobby</td>
<td>7th Floor Lobby</td>
</tr>
</tbody>
</table>
| **8.00am – 9:00am** | WI-IAT Invited Industry Speaker Prof. David Atkinson  
"Trust Between Humans and Intelligent, Autonomous Agents" | 7th Floor Atlanta Ballroom (B,C,D)                                    |
| **9:00am – 10:00am** | WI-IAT Joint Keynote Speaker Prof. John Hopcroft  
"Future Directions in Computer Science Research" | 7th Floor Atlanta Ballroom (B,C,D)                                    |
| **10:00am – 10:30am** | Coffee Break 7th Floor Lobby                                                               | 7th Floor Lobby                                                      |
| **10:30am-12:15pm** | IAT Session 7  
Agent and Multi-Agent Systems Modeling  
IAT Session 8  
Allocation and Coordination  
WI Session 12  
Intelligent Web Data Mining  
WI Session 13  
Web Data Clustering  
WI Session 14  
Web Mining Applications  
Tutorial Ontology for Multimedia Applications | Room 1202  
Room 1203  
Room 1204  
Room 1205  
Room 1206  
Room 1207 |
| **12:15pm – 1:30pm** | Lunch  
Tutorial Part I Agents in Smart Energy Grids | 7th Floor Lobby                                                      |
| **1:30pm-3:00pm** | IAT Session 9  
Emotions in Agents  
IAT Session 10  
Agent Modelling and Analysis Methods  
WI Session 3  
Recommendation I  
WI Session 7  
Web Ontology Engineering  
WI Session 16  
Social Networks and Ubiquitous Intelligence II  
Tutorial Part II Agents in Smart Energy Grids | Room 1202  
Room 1203  
Room 1204  
Room 1205  
Room 1206  
Room 1207 |
| **3:00pm – 3:30pm** | Coffee Break | 7th Floor Lobby                                                      |
| **3:30pm-5:00pm** | IAT Session 5  
Coalition Formation I  
IAT Session 6  
Agent Applications I  
WI Session 2  
Web Intelligence Foundations II  
WI Session 9  
Semantic Web Applications  
WI Session 18  
Intelligent Human Web-Interaction I  
Tutorial Part II Agents in Smart Energy Grids | Room 1202  
Room 1203  
Room 1204  
Room 1205  
Room 1206  
Room 1207 |
| **5:00pm – 6:00pm** | Student Posters Session 7th Floor Lobby | 7th Floor Lobby                                                      |
| **7:00pm – 9:00pm** | Conference Banquet 7th Floor Atlanta Ballroom (E,F,G,H) | 7th Floor Atlanta Ballroom (E,F,G,H) |
# PROGRAM AT A GLANCE
**NOVEMBER 20, 2013**

<table>
<thead>
<tr>
<th>Time</th>
<th>Sessions (8:00am – 5:00pm)</th>
<th>Foyer</th>
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</thead>
<tbody>
<tr>
<td>All day</td>
<td>Registration Desk</td>
<td>Foyer</td>
</tr>
</tbody>
</table>
| 8.00am – 9.00am | WI-IAT Invited Industry Speaker  
Prof. Cyrus Nourani  
“W-Interfaces, Business Intelligence, and Content Processing” | 7th Floor Atlanta Ballroom (B,C,D) |
| 9:00am – 10:00am| WI-IAT Joint Keynote Speaker  
Prof. Scott Fahlman  
“Natural Language Understanding Using Background Knowledge” | 7th Floor Atlanta Ballroom (B,C,D) |
| 10:00am – 10:30am| Coffee Break                |                                |
| 10:30am – 12:15pm| Industry Special Session: Invited and Contributed Papers | 7th Floor Atlanta Ballroom (B,C,D) |
| Venue Room 1202 | Room 1203 Room 1204 Room 1205 Room 1206 Room 1207 | |
| 10:30am-12:15pm| IAT Session 11             | IAT Session 12 Coalition Formation II | WI Session 15 Social Networks and Ubiquitous Intelligence I | WI Session 20 Intelligent e-Technology I | WI Session 5 Information Retrieval | Tutorial Intelligent Web Crawling |
| 12:15pm – 1:30pm| Lunch                       |                                |
| 1:30pm-3:00pm  | IAT Session S13 Game Playing | IAT Session S14 Agent Applications II | WI Session 4 Recommendation II | WI Session 21 Intelligent e-Technology II | WI Session 19 Intelligent Human-Web Interaction II |
| 3:00pm – 3:30pm| Coffee Break                |                                |
| 3:30pm-5:00pm  | WI-IAT Industry Panel: Internet of Things | 7th Floor Atlanta Ballroom (B,C,D) |
# WI-IAT 2013 Workshop Schedule

## November 17, 2013

### AS-BPM 2013

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.30-10.00</td>
<td>Alexander Lawall, Thomas Schaller, and Dominik Reichelt</td>
<td>&quot;Who Does What - Comparison of Approaches for the Definition of Agents in Workflows&quot;</td>
</tr>
<tr>
<td>10.30-11.00</td>
<td>Coffee Break</td>
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</tr>
<tr>
<td>11.00-11.30</td>
<td>Udo Kannengiesser and Harald Müller</td>
<td>&quot;Towards Agent-Based Smart Factories: A Subject-Oriented Modeling Approach&quot;</td>
</tr>
<tr>
<td>11.30-12.00</td>
<td>Matthias Kurz</td>
<td>&quot;Taming Diversity: A distributed ACM-based approach for cross-enterprise knowledge work&quot;</td>
</tr>
</tbody>
</table>

12.30-2.00 LUNCH BREAK

### NLPOE 2013

<table>
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<tr>
<td>02.00-02.30</td>
<td>Janani Krishnamani, Yanjun Zhao, and Rajshekhar Sunderraman</td>
<td>&quot;Forum Summarization using Topic Models and Content-Metadata Sensitive Clustering&quot;</td>
</tr>
<tr>
<td>02.30-03.00</td>
<td>Peng Chen</td>
<td>&quot;Algebraic model and implementation of translation between logic and natural language&quot;</td>
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<tr>
<td>03.00-03.30</td>
<td>Liang Chunxia and Yanqiu Shao</td>
<td>&quot;Construction of a Chinese Semantic Dictionary by Integrating Two Heterogeneous Dictionaries: TongYiCi Cilin and Hownet&quot;</td>
</tr>
<tr>
<td>03.30-04.00</td>
<td>Coffee Break</td>
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<tr>
<td>04.00-04.30</td>
<td>Zhimin Wang</td>
<td>&quot;The idiom investigation of Chinese undergraduate textbook and the extraction of common used idioms&quot;</td>
</tr>
<tr>
<td>04.30-05.00</td>
<td>Yuxiang Jia, Hongying Zan, Ming Fan, Shiwen Yu, and Zhimin Wang</td>
<td>&quot;Detecting Chinese Figurative Expressions: A Machine Learning Approach&quot;</td>
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#### ODMWI 2013  
Tower Room 1202

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<td>Xi Zhao, Lingfeng Niu, and Yong Shi</td>
<td>&quot;Kernel based Simple Regularized Multiple Criteria Linear Programs for Binary Classification&quot;</td>
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<td>10.00-10.30</td>
<td>Jiguang Liang, Jianlong Tan, Xiaofei Zhou, Ping Liu, Li Guo, and Shuo Bai</td>
<td>&quot;Dependency Expansion Model for Sentiment Lexicon Extraction&quot;</td>
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<td>Wen Long and Qian Wang</td>
<td>&quot;Correlation Coefficient of Compositional Data Based on Isometric Logratio Transformation&quot;</td>
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<td>&quot;DM-Midware: A Middleware to Enable High Performance Data Mining in Heterogeneous Cloud&quot;</td>
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#### 12.30-2.00 LUNCH BREAK

#### DOCMAS 2013  
Tower Room 1202

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<tbody>
<tr>
<td>02.00-02.30</td>
<td>Fujio Toriumi, Hitoshi Yamamoto, and Isamu Okada</td>
<td>&quot;Effects of controllable facilitators on social media: simulation analysis using Generalized Metanorms Games&quot;</td>
</tr>
<tr>
<td>02.30-03.00</td>
<td>Satoshi Kurihara, Koichi Moriyama, and Masayuki Numao</td>
<td>&quot;Proposition of the context-aware application prediction mechanism for mobile devices&quot;</td>
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<tr>
<td>03.00-03.30</td>
<td>Yuki Ogawa, Hitoshi Yamamoto, Kakuko Miyata, and Ken’ichi Ikeda</td>
<td>&quot;Association between Selective Exposure and Attitude on Twitter&quot;</td>
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<td>03.30-04.00</td>
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<tr>
<td>04.00-04.30</td>
<td>Yuki Hirahara, Fujio Toriumi, and Toshiharu Sugawara</td>
<td>&quot;Evolution of Cooperation in Meta-rewards Games on Networks of WS and BA models&quot;</td>
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<tr>
<td>04.30-05.00</td>
<td>Isamu Okada and Hitoshi Yamamoto</td>
<td>&quot;Adaptive Risk Choice Behavior using MAS&quot;</td>
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### 09.30-10.00
**Invited Talk: Scott Fahlman**

### 10.00-10.30
Ayan Dutta, Prithviraj Dasgupta, Jose Baca, and Carl Nelson, "Towards Autonomously Predicting and Learning a Robot's Efficiency in Performing Tasks"

### 10.30-11.00
**Coffee Break**

### 11.00-11.30
Alejandra Gonzalez, Ronald Angel, and Enrique Gonzalez, "Concurrent BDI Architecture For Hybrid Agents"

### 11.30-12.00
Zulkuf Genc, Sander van Splunter, Michel Oey, and Frances M.T. Brazier, "Smart and Secure Sensor Data Sharing in Crisis Response and Management"

### 12.30-2.00 LUNCH BREAK

### 02.00-02.30
David Vallejo, Félix-Jesus Villanueva, Luis-Miguel García, Carlos González, and Javier Albusac, "An agent-based approach to understand events in surveillance environments"

### 02.30-03.00
Yusuke Kubo, Masao Kubo, Hiroshi Sato, and Akira Namatame, "Automatic Classification Methods of Photographs Based on Geographical Attentions of Crowd"

### 03.00-03.30
Antonio Jara, Yann Bocchi, and Dominique Genoud, "Determining Human Dynamics through the Internet of Things"
### November 17, 2013

**WOSWI 2013**

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<td>09.30-10.00</td>
<td>Rachid Aliradi, Naima Bouzera, Abdelkrim Meziane, and Abdelkader Belkhir, &quot;Detection of facial components based on SVM classification and invariant feature&quot;</td>
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<tr>
<td>10.00-10.30</td>
<td>Ahmad Abdel-Hafez and Yue Xu, &quot;Feature’s Ontology-Based Product’s Reputation Model&quot;</td>
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<tr>
<td>10.30-11.00</td>
<td>Coffee Break</td>
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<tr>
<td>11.00-11.30</td>
<td>Patrick Hennig, Philipp Berger, and Christoph Meinel, &quot;Identify Emergent Trends based on the Blogosphere&quot;</td>
</tr>
<tr>
<td>11.30-12.00</td>
<td>Sanghoon Lee, Sunny Shakya, Rajshekhar Sunderraman, and Saeid Belkasim, &quot;Real Time Micro-Blog Summarization based on Hadoop/HBase&quot;</td>
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**12.30-2.00 LUNCH BREAK**

**WOSWI 2013**

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<tr>
<td>02.00-02.30</td>
<td>Maha KHEMAJA, Valérie Monfort, and Ikmel HAAMDI, &quot;When Social and Learning Profiles Improve Business Processes Application to Handicraft Women using TIC&quot;</td>
</tr>
<tr>
<td>02.30-03.00</td>
<td>Rodrigo Dueñas-Fernández, Gaston L'Huillier, and Juan D. Velásquez, &quot;Sentiment Polarity of Trends on the Web Using Opinion Mining and Topic Modeling&quot;</td>
</tr>
<tr>
<td>03.00-03.30</td>
<td>Song Qin, Marius Silaghi, Toshihiro Matsui, Makoto Yokoo, and Katsutoshi Hirayama, &quot;Reputation System for Decentralized Population Census&quot;</td>
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**November 17, 2013**

**WPRSM 2013**

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<tr>
<td>09.30-10.00</td>
<td>Seyed-Ali Bahrainian and Andreas Dengel, &quot;Sentiment Analysis of Twitter Data using Sentiment Features&quot;</td>
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<td>10.00-10.30</td>
<td>Wanvimol Nadee, Yuefeng Li, and Yue Xu, &quot;Acquiring User Information Needs For Recommender Systems.&quot;</td>
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<td>10.30-11.00</td>
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<tr>
<td>11.00-11.30</td>
<td>Angeliki Mikeli, Dimitris Apostolou, and Dimitris Despotis, &quot;A Multi-criteria Recommendation Method for Interval Scaled Ratings&quot;</td>
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<td>11.30-12.00</td>
<td>Fei Wang, Zhe Zhang, Hailong Sun, Richong Zhang, and Xudong Liu, &quot;A Cooperation Based Metric for Mobile Applications Recommendation&quot;</td>
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**12.30-2.00 LUNCH BREAK**

**WPRSM 2013**

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<tr>
<td>02.00-02.30</td>
<td>Stuti Ajmani, Hiranmay Ghosh, Anupama Mallik, and Santanu Chaudhury, &quot;An ontology based personalized garment recommendation system&quot;</td>
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<tr>
<td>02.30-03.00</td>
<td>Nirmal Jonnalagedda and Susan Gauch, &quot;Personalized News Recommendation Using Twitter&quot;</td>
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<tr>
<td>03.00-03.30</td>
<td>Xiaoyu Tang, Yue Xu, and Shlomo Geva, &quot;Integrating time forgetting mechanisms into topic-based user interest profiling&quot;</td>
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<tr>
<td>09.30-10.00</td>
<td>Vinicius H. Ferreira, Lucelene Lopes, Renata Vieira, and Maria Jose Finatto, &quot;Automatic Extraction of Domain Specific Non-Taxonomic Relations from Portuguese Corpora&quot;</td>
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<tr>
<td>10.00-10.30</td>
<td>Paulo Fernandes, Luis Furquim, and Lucelene Lopes, &quot;A Supervised Method to Enhance Vocabulary with the Creation of Domain Specific Lexica&quot;</td>
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<td>11.00-11.30</td>
<td>Muhammad Aun Abbas and Giuseppe Berio, &quot;Creating Ontologies Using Ontology Mappings&quot;</td>
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<td>11.30-12.00</td>
<td>Thi Hoa Hue Nguyen and Nhan Le-Thanh, &quot;Representation of RDF-oriented Composition with OWL DL ontology&quot;</td>
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<tr>
<td>12.00-12.30</td>
<td>Denis Araujo, Sandro Rigo, Carolina Müller, and Rove Chishman, &quot;Automatic information extraction from texts with inference and linguistic knowledge acquisition rules&quot;</td>
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<tr>
<td>02.00-02.30</td>
<td>Adriana Leite, Rosario Girardi, and Paulo Novais, &quot;Using Ontologies in Hybrid Software Agent Architectures&quot;</td>
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<td>02.30-03.00</td>
<td>Ayman Alhelbawy and Robert Gaizuskas, &quot;Named Entity Disambiguation Using HMMs&quot;</td>
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<td>03.00-03.30</td>
<td>Olavo Holanda, Endhe Soares, Evandro Costa, and Baldoino Fonseca, &quot;Towards an Agent-based Approach for Automatic Generation of Researcher Profiles using Multiple Data Sources&quot;</td>
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<td>04.00-04.30</td>
<td>Nizar Ghoula, Hervé Nindanga, and Gilles Falquet, &quot;A meta-model and ontology for managing heterogenous alignment resources&quot;</td>
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<td>04.30-05.00</td>
<td>Nisha Pahal, Santanu Chaudhury, and Brejesh Lall, &quot;Extending MOWL for Event Representation (E-MOWL)&quot;</td>
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<td>09.30-09.45</td>
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<td>09.45-10.30</td>
<td><strong>Invited Talk</strong> Pedro Alves Nogueira, “Evolving the Affective Loop: Emotional Reaction Profiling as a Means for Adaptive Affect Inductive Experiences”.</td>
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<tr>
<td>10.30-11.00</td>
<td>Coffee Break</td>
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<td>11.00-11.30</td>
<td>Rogier van Eijk, &quot;Ambient Coaching of Progressive Relaxation&quot;</td>
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<tr>
<td>11.30-12.00</td>
<td>Charlotte Gerritsen, Jeroen de Man, and Justin van der Meij, &quot;Physiological and subjective response to injustice: the effects of unjust evaluations on physiological responses and subjective experiences&quot;</td>
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<tr>
<td>12.00-12.30</td>
<td>Peter Roelofsm, &quot;Incorporating the Human Ability Approach in the Ambient Assisted Living Taxonomy&quot;</td>
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<tr>
<td>02.00-02.30</td>
<td>Maaike de Boer, Peter-Paul van Maanen, and Gerard Vreeswijk, &quot;Supporting Intelligence Analysts with a Trust-based Question-Answering System&quot;</td>
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<td>02.30-03.00</td>
<td>Fahad Mansoor, Muhammad Rohail, and Syed Waqar Jaffry, &quot;Empirical Validation of Model for Human Decision Making&quot;</td>
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<tr>
<td>03.00-03.30</td>
<td>Wim van der Ham and Peter Roelofsm, &quot;The Ambient Intelligent Environment as an Attachment Figure: How to Create Sensitive Coaching Systems for Human Care&quot;</td>
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BWMD (Special Session) 2013  
Tower Room 1401

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<tr>
<td>09.30-10.00</td>
<td>Lipika Dey and Ishan Verma, &quot;Text-driven Multi-structured Data Analytics for Enterprise Intelligence&quot;</td>
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<td>10.00-10.30</td>
<td>Kimia Hassanzadeh, Marek Reformat, Witold Pedrycz, and Iqbal Jamal, &quot;T2R: System for Converting Textual Documents into RDF triples&quot;</td>
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<td>10.30-11.00</td>
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<tr>
<td>11.00-11.30</td>
<td>Adam Krasuski, Andrzej Jankowski, Andrzej Skowron, and Dominik Slezak, &quot;From Sensory Data to Decision Making: A Perspective on Supporting a Fire Commander&quot;</td>
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<td>11.30-12.00</td>
<td>Hung Son Nguyen, &quot;Tolerance Rough Set Model and its Applications in Web Intelligence&quot;</td>
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12.30-2.00 LUNCH BREAK

BWMD (Special Session) 2013  
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<tr>
<td>02.00-02.30</td>
<td>Libiao Zhang, Yuefeng Li, Chao Sun, and Wanvimol Nadee, &quot;Rough Set Based Approach to Text Classification&quot;</td>
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<td>02.30-03.00</td>
<td>Graham Toppin, Janusz Borkowski, Shengli Shi, Dominik Slezak, Piotr Synak, Jakub Wroblewski, Todd Wongkee, and George Charalabopoulos, &quot;Toward Granular Scalability of Analytical Data Processing&quot;</td>
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**IOT (Special Session) 2013**

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<td>09.30-10.00</td>
<td>Rasmus Pedersen</td>
<td>“IOT for designing smart micro IS (Information Systems)”</td>
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<tr>
<td>10.00-10.30</td>
<td>Ivan Hauser</td>
<td>“How to design the IoP (Internet of People) Platform?”</td>
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<td>11.00-11.30</td>
<td>Mirko Presser</td>
<td>“GateSense: the IOT platform”</td>
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<td>11.30-12.00</td>
<td>Cyrus Nourani, Codrina Lauth, and Rasmus Pedersen</td>
<td>“Cognitive Agent Planning with Attention Spanning – A Preliminary”</td>
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<td>12.00-12.30</td>
<td>Franz Huber</td>
<td>“Modeling of high connectivity and sensory geo-referentiation”</td>
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**ODMWI 2013**

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Program of the 2013 IEEE/WIC/ACM
International Conference on Web Intelligence

November 18-20, 2013
Atlanta, USA

November 18

08:00 – 10:10 7th Floor Atlanta Ball Room (B, C, D),
Conference Opening, Welcome Remarks and Keynote Speeches

08:00 – 08:10 Conference Opening and Welcome Remarks

08:10 – 09:10 Keynote Speech
"Collective Intelligence"
Prof. Ophir Frieder

09:10 – 10:10 Keynote Speech
"Personal Reflections on Self-Awareness and Adaptability in Agent and
Multiagent Systems"
Prof. Victor R. Lesser

10:10 - 10:30 Coffee Break

10:30 - 12:15 Tower Room 1204
Session 6: Web Data Analysis
Chair: Dr Lipika Dey, TCS Innovation Labs, India

10:30 - 10:45 "Reciprocal Collaborative Method using Relevance Feedback and Feature Importance"
Richi Nayak and Lin Chen

10:45 - 11:15 "Diversifying Query Suggestions by using Topics from Wikipedia"
Hao Hu, Mingxi Zhang, Zhenying He, Peng Wang, and Wei Wang

11:15 - 11:30 "Context Sensitive Reflow of HTML Objects"
Rajorshi Ghosh Choudhury, Arohi Kumar, Devesh Varshney,
Prachi Jain, and Varun Malhotra
11:30 - 11:45  "Story Link Detection in Turkish Corpus"
Güven Köse, Yaşar Tonta, Aydin Can Polatkan, and Hamid Ahmadlouei

11:45 - 12:00  "Enhancing Web Search Using Query-Based Clusters and Labels"
Rani Qumsiyeh and Yiu-Kai Ng

12:00 - 12:15  "Microblogging Personalized Recommendation Based on Ego Networks"
Jing Sun and Yangyong Zhu

10:30 - 12:15  Tower Room 1205
Session 10: Personal Web Data Mining
Chair: Prof Satoshi Kurihara,
The University of Electro-Communications, Japan

10:30 - 11:00  "What Does “#tcot” Mean? Understanding Hashtags and Their Relationships via
Modeling Tweet Content"
Zhiqiang Ma, Wenwen Dou, Xiaoyu Wang, and Srinivas Akella

11:00 - 11:30  "Sentence Subjectivity Analysis in Social Domains"
Mostafa Karamibekr and Ali A. Ghorbani

11:30 - 12:00  "A Logic Programming Approach to Aspect Extraction in Opinion Mining"
Qian Liu, Zhiqiang Gao, Bing Liu, and Yuanlin Zhang

12:00 - 12:15  "Mining user-generated path traversal patterns in an information network"
Frank Takes and Walter Kosters

10:30 - 12:00  Tower Room 1206
Session 11: Big Web Data Mining
Chair: Dr Maria Jose Santofimia Romero,
Universidad de Castilla-La Mancha, Spain

10:30 - 11:00  "GRABEX: A Graph-Based Method for Web Site Block Classification
and its Application on Mining Breadcrumb Trails"
Matthias Keller and Hannes Hartenstein

11:00 - 11:30  "DynTARM: An In-Memory Data Structure for Targeted Strong and Rare Association
Rule Mining Over Time-Varying Domains"
Jennifer Lavergne, Ryan Benton, Vijay Raghavan, and Alaaeldin Hafez

11:30 - 11:45  "Fully Automated Learning for Application-Specific Web Video Classification"
CHETAN VERMA and Sujit Dey
11:45 - 12:00  "Economic Development through Business Profiling: A Text Analysis based Approach"
Rohit Parimi, Doina Caragea, and Dale Wunderlich

10:30 - 12:30  **Tower Room 1207**
**Tutorial “Software Agent Architectures”**
Rosario Girardi, Federal University of Maranhão

12:15 - 13:30  Lunch

**13:30 - 15:00  Tower Room 1204**
**Session 1: Web Intelligence Foundations I**
Chair: Dr Rosario Girardi, Federal University of Maranhao, Brazil

13:30 - 14:00  "An Analytical Model for the Propagation of Social Influence"
Xiaoguang Fan, Guolin Niu, and Victor O.K. Li

14:00 - 14:30  "Properties of A New Adaptive Sampling Method with Applications to Scalable Learning"
Jianhua Chen

14:30 - 14:45  "Can the Agent Based Modeling represent the OER"
Hedia Mhiri Sellami

14:45 - 15:00  "Min-based fusion of possibilistic DL-Lite knowledge bases"
Bouraoui Zied, Benferhat Salem, and Loukil Zied

**13:30 - 15:00  Tower Room 1205**
**Session 8: Web Semantics**
Chair: Prof Vijay Raghavan, University of Louisiana at Lafayette, USA

13:30 - 14:00  "Automatic Domain Identification for Linked Open Data"
Sarasi Lalithsena, Prateek Jain, Pascal Hitzler, and Amit Sheth

14:00 - 14:30  "A New Method to Finding All Justifications in OWL 2 EL"
Zhangquan Zhou, Guilin Qi, and Boontawee Suntisrivaraporn

14:30 - 14:45  "Scalable Planning in the Semantic Web - A Smart Factory Assembly Line Balancing Example"
Thomas Fischer and Johannes Ruhland

14:45 - 15:00  "Tableaux Algorithms for Expressive Possibilistic Description Logics"
Jinfan ZHU, Guilin Qi, and Kewen Wang
13:30 - 14:45 Tower Room 1206  
**Session 17: Web Services**  
Chair: Dr Hiranmay Ghosh, TCS Innovation Labs Delhi, India

13:30 - 14:00  "Participatory Service Design for Multi-Language Communication Based on User-Centered QoS"  
Donghui Lin and Toru Ishida

14:00 - 14:15  "Service Indexing Method based on User Intent"  
Yasuyuki Kataoka, Tomoki Watanabe, Kiyoshi Tanaka, and Suguru Higashino

14:15 - 14:30  "A Declarative Web Services Composition Framework"  
Mohsen Rouached

14:30 - 14:45  "Preference based Service Adaptation using Service Substitution"  
Ganesh Ram Santhanam, Samik Basu, and Vasant Honavar

15:00 - 15:30  Coffee Break

15:30 - 17:00  7th Floor Atlanta Ball Room (B, C, D), WI-IAT Conference Panel:  
Connecting Big Data with Web Intelligence

**Panelists:**  
Scott E. Fahlman, CMU  
Ophir Frieder, Georgetown University  
Ling Liu, Georgia Institute of Technology (moderator)  
Cyrus Nourani, Acdmkrd and Copenhagen Business School

**Panel Statement**

Big data and data analytics are one of the hottest IT themes in both academics and industry worldwide. In this panel, the panelists will present their point of view on big data hypes from both brighter side and darker side of big data initiatives. Example questions that the Panelists may focus on include but not limit to:

1) What is considered as big data challenges in the context of Web Intelligence,  
2) How big data and web intelligence may interact,  
3) Will big data change the way of how Web Intelligence is delivered or researched,  
4) Are there any dark-side of big data in the context of Web intelligence and how do we prepare to deal with them.

Panelists may share their controversial points of view and provocative positions on issues, including above but not limited to, during panel presentation and discussion.

17:00 -19:00 Augusta Room, WI-IAT Conference Reception
November 19

08:00 - 10:00  Atlanta Ball Room (B, C, D), Keynote Speeches

08:00 - 09:00  Invited Industry Speech
"Trust Between Humans and Intelligent, Autonomous Agents"
Prof. David Atkinson

09:00 - 10:00  Keynote Speech
"Future Directions in Computer Science Research"
Prof. John E. Hopcroft

10:00 - 10:30  Coffee Break

10:30 - 12:15  Tower Room 1204
Session 12: Intelligent Web Data Mining
Chair: Prof Dominik Slezak, University of Warsaw & Infobright Inc, Poland

10:30 - 11:00  "Leveraging Web Intelligence for Finding Interesting Research Datasets"
Ayush Singhal, Ravindra Kasturi, Vidyashankar Sivakumar, and Jaideep Srivastava

11:00 - 11:30  "A Novel Hybrid HDP-LDA Model for Sentiment Analysis"
Wanying Ding, Xiaoli Song, Lifan Guo, and Xiaohua Hu

11:30 - 11:45  "Stock Prediction Using Event-based Sentiment Analysis"
Masoud makrehchi, Sameena Shah, and Wenhui Liao

10:30 - 12:15  Tower Room 1205
Session 13: Web Data Clustering
Chair: Dr Denis Shestakov, Aalto University, Finland

10:30 - 11:00  "Identifying Clusters with Attribute Homogeneity and Similar Connectivity in Information Networks"
Andreas Papadopoulos, George Pallis, and Marios Dikaikos

11:00 - 11:30  "Clustering Editors of Wikipedia by Editor’s Biases"
Akira Nakamura, Yu Suzuki, and Yoshiharu Ishikawa

11:30 - 12:00  "Tri-Layer-Cluster Generation Model for Activity Prediction"
Dandan Zhu, Yusuke Fukazawa, and Jun Ota
12:00 - 12:15  "Finding Dominating Set from Verbal Contextual Graph for Personalized Search in Folksonomy"
Ting Jin, Haoran Xie, Jingsheng Lei, Qing Li, Xiaodong Li, Xudong Mao, and Yanghui Rao

10:30 - 12:15  Tower Room 1206
Session 14: Web Mining Applications
Chair: Prof Werner Schmidt, Technische Hochschule Ingolstadt, Germany

10:30 - 11:00  "Measuring group cohesion in document collections"
Benjamin Renoust, Guy Melançon, and Marie-Luce Viaud

11:00 - 11:30  "Adaptive Topic Modeling for Detection Objectionable Text"
Jianping Zeng, Jiangjiao Duan, and Chengrong Wu

11:30 - 12:00  "A Four Dimension Graph Model for Automatic Text Summarization"
Rafael Ferreira, Fred Freitas, Rinaldo Lima, Rafael Dueire, Luciano Cabral, and Gabriel Silva

12:00 - 12:15  "Preference Estimation for SNS Fan Pages Based on Statistical Information"
Hiroaki Yamane and Masafumi Hagiwara

10:30 - 12:30  Tower Room 1207
Tutorial “Ontology for Multimedia Applications”
Hiranmay Ghosh
Tata Consultancy

12:15 - 13:30  Lunch

13:30 - 15:00  Tower Room 1204
Session 3: Recommendation I
Chair: Prof Atsuhiro Takasu, National Institute of Informatics, Japan

13:30 - 14:00  "Evaluating Hybrid Music Recommender Systems"
Thomas Hornung, Cai-Nicolas Ziegler, Simon Franz, Martin Przyjaciel-Zablocki, Alexander Schätzle, and Georg Lausen

14:00 - 14:30  "Music Recommendation Based on Multiple Contextual Similarity Information"
Chih-Ming Chen, Jen-Yu Liu, Ming-Feng Tsai, and Yi-Hsuan Yang

14:30 - 15:00  "A Hybrid Recommender System: User Profiling from Keywords and Ratings"
Ana Stanescu, Swapnil Nagar, and Doina Caragea
13:30 - 15:00  
**Tower Room 1205**

**Session 7: Web Ontology Engineering**
Chair: Prof Scott Fahlman, Carnegie Mellon University, USA

13:30 - 14:00  
"Query Answering in Probabilistic Datalog+/- Ontologies under Group Preferences"
Thomas Lukasiewicz, Maria Vanina Martinez, Gerardo Simari, and Oana Tifrea-Marciuska

14:00 - 14:15  
"An Ontological Model for Resource Sharing in Pervasive Environments"
Kimberly García, Manuele Kirsch-Pinheiro, Sonia Mendoza, and Dominique Decouchant

14:15 - 14:30  
"OnPerDis: Ontology-based Personal Name Disambiguation on the Web"
Zhao Lu, Zhixian Yan, and Liang He

14:30 - 14:45  
"Canonical Forms and Similarity of Complex Concepts for Improved Ontology Alignment"
Tejas Chaudhari, Uthayasanker Thayasivam, and Prashant Doshi

14:45 - 15:00  
"Automating Document Summarization Using Open Source Knowledge"
Ayush Singhal, Ravindra Kasturi, and Jaideep Srivastava

13:30 - 15:00  
**Tower Room 1206**

**Session 16: Social Networks and Ubiquitous Intelligence II**
Chair: Dr Albert Fleischmann, Metasonic AG, Germany

13:30 - 14:00  
"Incorporating Structural Diversity of Neighbors in a Diffusion Model for Social Networks"
Qing Bao, William Kwok Wai Cheung, and Yu Zhang

14:00 - 14:15  
"Collective Knowledge Ontology User Profiling for Twitter"
Paula Peña, Rafael del Hoyo, Jorge Vea-Murguía, Carlos González, and Sergio Mayo

14:15 - 14:30  
"Towards Adaptive Multi-Agent Planning in Cyber Physical Space"
Sumant Mukherjee and Santunu Chaudhury

14:30 - 14:45  
"A method for discovering dynamic network motifs by encoding topic propagation"
Natasa Milic-Frayling, Vladimir Barash, and Marc Smith

14:45 - 15:00  
"Style Features for Authors across Multiple Languages"
Lauren Stuart, Saltanat Tazhibayeva, Amy Wagoner, and Julia M. Taylor

14:00 - 15:00  
**Tower Room 1207**

**Tutorial (Part I) “Agents in Smart Energy Grids”**
Michel Oey, Martijn Warnier and Frances Brazier
Delft University of Technology
15:00 - 15:30  Coffee Break

15:30 - 16:30  Tower Room 1207
Tutorial (Part II) “Agents in Smart Energy Grids”
Michel Oey, Martijn Warnier and Frances Brazier
Delft University of Technology

15:30 - 17:00  Tower Room 1204
Session 2: Web Intelligence Foundations II
Chair: Prof Juan Velasquez, Universidad de Chile, Chile

15:30 - 16:00  "Local trust versus global trust networks in subjective logic"
Charif Haydar, Anne Boyer, and Azim Roussanaly

16:00 - 16:30  "Finding Information Through Integrated Ad-Hoc Socializing in the Virtual and Physical World"
Christian von der Weth and Manfred Hauswirth

16:30 - 16:45  "Exploring Computation Locality of Graph Mining Algorithms on MapReduce"
Qiu hong Li, Ke Dai, Wang Wei, and Peng Wang

16:45 - 17:00  "DOBBS: Towards a Comprehensive Dataset to Study the Browsing Behavior of Online Users"
Christian von der Weth and Manfred Hauswirth

15:30 - 17:00  Tower Room 1205
Session 9: Semantic Web Applications
Chair: Prof Rajshekhar Sunderraman, Georgia State University, USA

15:30 - 16:00  "MeDetect: A LOD-based System for Collective Entity Annotation in Biomedicine"
Li Tian, Weinan Zhang, Antonis Bikakis, Haofen Wang, Yong Yu, Yuan Ni, and Feng Cao

16:00 - 16:15  "Automatic class labeling for CiteSeerX"
Surya Dhairyas Kashireddy, Syed Billah, and Susan Gauch

16:15 - 16:30  "Domain Specific Facts Extraction Using Weakly Supervised Active Learning Approach"
Vinay Pande and Vasudeva Varma

16:30 - 17:00  "Identifying Domain Experts in the Blogosphere - Ranking Blogs based on Topic Consistency"
Philipp Berger, Patrick Hennig, and Christoph Meinel
15:30 - 16:30  Tower Room 1206
Session 18: Intelligent Human-Web Interaction I
Chair: Prof Peter Roelofsmma, Vrije Universiteit Amsterdam, The Netherlands

15:30 - 16:00  "Context-aware application prediction and recommendation in mobile devices"
Satoshi Kurihara, Koichi Moriyama, and Masayuki Numao

16:00 - 16:15  "Hyperlink Pipeline: Lightweight Service Composition for Users"
Li Li, Wu Chou, Tao Cai, and Zhe Wang

16:15 - 16:30  "Mobility Classifier using Radio Beacons: a Robust Approach to Different GSM and Wi-Fi Densities"
Min Young Mun

17:00 - 18:00  7th Floor Lobby, Student Posters Session (see p. 48-49 for details).

19:00 - 21:00  7th Floor Atlanta Ballroom (E,F,G,H) Conference Banquet
November 20

08:00 - 10:00 Atlanta Ball Room (B, C, D), Keynote Speeches

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09:00 - 10:00 Keynote Speech
"Natural Language Understanding Using Background Knowledge"
Prof. Scott E. Fahlman

10:00 - 10:30 Coffee Break

10:30 - 12:15 7th Floor Atlanta Ball Room (B, C, D),
Industry Invited and Contributed Papers
Chair: Dr Ying Xie, Kennesaw State University, USA

10:30 - 10:55 "Search & Discovery in e-commerce using big data"
Jayasimha Katukuri, Naren Chittar

10:55 - 11:15 "A Digital Hub Solution for the Blind"
Ying Xie, Dusty Bray

11:15 - 11:35 "OpinionZoom, a modular tool to explore tourism opinions on the Web"
Edison Marrese-Taylor, Juan D. Velásquez, and Felipe Bravo-Marquez

11:35 - 11:55 "Vision-based Web Page Block Segmentation and Informative Block Detection -- WI"
Xuhong Zhang, Yanqing Zhang, Jing (Selena) He, and Frank Cobia

11:55 - 12:15 "Recommending Software Apps in a B2B Context"
Cai-Nicolas Ziegler, Alexandru Oprea, Thomas Hornung, Holger Eggs, and Georg Lausen

10:30 - 12:15 Tower Room 1204
Session 15: Social Networks and Ubiquitous Intelligence I
Chair: Dr Jason Ding, Barracuda Networks, USA

10:30 - 11:00 "An Empirical Study of User Behaviors on Pinterest Social Network"
Ziming Feng, Feng Cong, Kailong Chen, and Yong Yu
11:00 - 11:30  "The impact of social diversity and dynamic influence propagation for identifying influencers in social networks"
Pei-Ying Huang, Hsin-Yu Liu, and Pu-Jen Cheng

11:30 - 12:00  "Graph Calculus: Scalable Shortest Path Analytics for Large Social Graphs through Core Net" LIXIN FU and JING DENG

12:00 - 12:15  "Empowering Collaborative Intelligence by the use of User-centered Social Network Aggregation" Xuan Truong Vu, Pierre Morizet-Mahoudeaux, and Marie-Hélène Abel

10:30 - 12:00  Tower Room 1205
**Session 20: Intelligent e-Technology I**
Chair: Dr Natasa Milic-Frayling, Microsoft Research, UK

10:30 - 11:00  "Network Analysis of Third Party Tracking"
Natasa Milic-Frayling, Eduarda Mendes Rodrigues, Richard Gomer, and m.c. Schraefel

11:00 - 11:30  "Email Analytics for Activity Management and Insight Discovery"
Lipika Dey, Sameera Bharadwaja, Meera G, and Gautam Shroff

11:30 - 11:45  "An Incentive Scheme for Non-Cooperative Social Networks under the Independent Cascade Model" Yile Yang, Victor O.K. Li, and Kuang Xu

11:45 - 12:00  "Differentially Private Naïve Bayes Classification"
Jaideep Vaidya, Anirban Basu, Basit Shafiq, and Yuan Hong

10:30 - 12:00  Tower Room 1206
**Session 5: Information Retrieval**
Chair: Prof Andreas Dengel, DFKI and University of Kaiserslautern, Germany

10:30 - 11:00  "HashGraph : an expressive and scalable Twitter users profile for recommendation"
Julien Subercaze, Christophe Gravier, and Frédérique Laforest

11:00 - 11:15  "Routing Questions in Twitter: an Effective Way to Qualify Peer Helpers"
Cleyton Souza, Jonathas Magalhães, Evandro Costa, and Joseana Fechine

11:15 - 11:30  "A Blending Method for Automated Social Tagging"
Shenghua Liu, Yatao Zhu, Jiafeng Guo, Yuanzhuo Wang, Xueqi Cheng, and Yue Liu

11:30 - 11:45  "A Lightweight Algorithm for Automated Forum Information Processing"
Wee Yong Lim, Amit Sachan, and Vrizlynn L. L. Thing

11:45 - 12:00  "Using Instance Texts to Improve Keyword-based Class Retrieval"
Xingjian Zhang and Jeff Heflin
10:30 - 12:30  **Tower Room 1207**  
*Tutorial “Intelligent Web Crawling”*
Denis Shestakov  
Department of Media Technology  
Aalto University

12:15 - 13:30  Lunch

13:30 - 15:00  **Tower Room 1204**  
*Session 4: Recommendation II*
Chair: Prof Christophe Gravier, Université Jean Monnet, France

13:30 - 14:00  "Privacy Preserving for Tagging Recommender Systems"  
Tianqing Zhu, Gang Li, Yongli Ren, Wanlei Zhou, and Ping Xiong

14:00 - 14:30  "An Effective Technique for News Recommendation Using Ontologies Harvested from the Web"  
Junyang Rao, Aixia Jia, Yansong Feng, and Dongyan Zhao

14:30 - 14:45  "A Recommendation Approach Dealing with Multiple Market Segments"  
Richi Nayak and Lin Chen

14:45 - 15:00  "Latent Probabilistic Model for Context-Aware Recommendation"  
Padipat Sitkrongwong, Saranya Maneeroj, and Atsuhiro Takasu

13:30 - 14:30  **Tower Room 1205**  
*Session 21: Intelligent e-Technology II*
Chair: Dr Saeid Belkasim, Georgia State University, USA

13:30 - 14:00  "A KDD-Based Methodology to Rank Trust in e-Commerce Systems"  
José Felipe Jr., Adriano Pereira, Wagner Meira Jr., and Adriano Veloso

14:00 - 14:15  "Towards Building A Personalized Online Web Spam Detector in Intelligent Web Browsers"  
Cailing Dong, Bin Zhou, and Lina Zhou

14:15 - 14:30  "Enabling Scalable Multi-Channel Communication through Semantic Technologies"  
Ioan Toma, Dieter Fensel, Andreea-Elena Gagiu, Ioannis Stavrakantonakis, Anna Fensel, Birgit Leiter, Andreas Thalhammer, Iker Larizgoitia, and Jose Maria Garcia

13:30 - 15:00  **Tower Room 1206**  
*Session 19: Intelligent Human-Web Interaction II*
Chair: Dr Ying Xie, Kennesaw State University, USA
13:30 - 13:45  "Towards Cross-Site Personalisation"
Kevin Koidl, Owen Conlan, and Vincent Wade

13:45 - 14:15  "Characterising concepts of interest leveraging Linked Data and the Social Web"
Fabrizio Orlandi and Alexandre Passant

14:15 - 14:45  "Generating Live Sports Updates from Twitter by Finding Good Reporters"
Mitsumasa Kubo, Ryohei Sasano, Hiroya Takamura, and Manabu Okumura

14:45 - 15:00  "Visualization to Support Augmented Web Browsing"
Dinh Quyen Nguyen and Heidrun Schumann

15:00 - 15:30  Coffee Break

15:30 - 17:00  7th Floor Atlanta Ball Room (B, C, D),
Industrial Panel Internet of Things

**Panelists:**
Alok Batra- Managing Partner at MQIdentity, Inc.
David Beberman- VP Marketing & Sales at Aicas, Inc.
Steve Gustafson- Director, Knowledge Discovery Lab at GE Global Research
Craig Harmon- President & CEO at Q.E.D. Systems
Michael Holdmann- EVP | Sales | Marketing | Strategy- Coversant Inc;

**Panel Moderator:**
Cyrus Nourani- Acdmkrd and Copenhagen Business School
http://www.linkedin.com/pub/cyrus-f-nourani/19/894/b73

**Panel Statement**
The Special Session IoT panel will allow Academia and Industry to participate together. The panelists will deliver to the audience a short presentation of what their company’s main focus of current and future technology needs for the IoT are. Each topic will be then open for discussion with the audience on specific issues that industry is currently uncovering. This interaction is meant to allow the researchers and industry to understand and cooperate on the technology limitations as well as start to develop a roadmap for focus and potential partnerships for advancement of the IoT.

Topics covered will include:

- Autonomics
- Infrastructure
- Data Management
- Security, Privacy & Trust
- Device Level Energy Issues
- IoT Related Standardization
November 18

08:00 - 10:10  7th Floor Atlanta BallRoom (B, C, D) Conf. Opening, Welcome Remarks and Keynote Speeches

08:00 - 08:10  Conference Opening and Welcome Remarks

08:00 - 09:10  Keynote Speech
   "Collective Intelligence"
   Prof. Ophir Frieder

09:10 - 10:10  Keynote Speech
   "Personal Reflections on Self-Awareness and Adaptability in Agent and Multiagent Systems"
   Prof. Victor R. Lesser

10:10 - 10:30  Coffee Break

10:30 - 12:15  Tower Room 1202
   Session 1: Agents in Social Networks
   Chair: Dr. Peter Roelofsma, VU University Amsterdam, The Netherlands

10:30 - 11:00  “Games Played by Networked Players”
   Fan Huang, Xudong Luo, Ho-fung Leung, and Qiaoting Zhong

11:00 - 11:30  “Modeling Opinion Dynamics in a Social Network”
   Qi Gu, Eugene Santos, and Eunice Santos

11:30 - 12:00  “Modeling and analysis of reliable Contract Net Protocol Using Timed Colored Petri Nets”
   Djamila Boukredera, Ramdane Maamri, and Samir Aknine
12:00 - 12:15  “WikiCrimes as an Open Institutional Environment”
Marcos de Oliveira, Martin Purvis, and Vasco Furtado

10:30 - 12:15  Tower Room 1203
Session 2: Optimization and Distributed Problem Solving
Chair: Prof. Amnon Meisels, Ben-Gurion University, Israel

10:30 - 11:00  “Energy-based Particle Swarm Optimization: Collective Energy Homeostasis in Social Autonomous Robots”
Xin Zhou and David Kinny

11:00 - 11:30  “Distributed Cooperative Optimization on Cluster Trees”
Toshihiro Matsui and Hiroshi Matsuo

11:30 - 12:00  “Virtual Structure Reduction on Distributed k-Coloring Problems”
Nathaniel Gemelli, Jeffrey Hudack, and Jae Oh

12:00 - 12:15  “Distributed Local Search for Minimizing Envy”
Arnon Netzer and Amnon Meisels

10:30 - 12:30  Tower Room 1207
Tutorial “Software Agent Architectures”
Rosario Girardi, Federal, University of Maranhão

12:15 - 13:30  Lunch

13:30 - 15:00  Tower Room 1202
Session 3: Agreement Technologies: Negotiation, Argumentation and Auctions
Session Chair: Dr. Prithviraj Dasgupta, University of Nebraska at Omaha, USA

13:30 - 14:00  “Predicting the Performance of Opponent Models in Automated Negotiation”
Tim Baarslag, Mark Hendrikx, Koen Hindriks, and Catholijn Jonker

14:00 - 14:30  “Simultaneous Auctions for “Rendez-Vous” Coordination Phases in Multi-Robot Multi-Task Mission”
Guillaume Lozenguez, Aurélie Beynior, Lounis Adouane, Abdel-Illah Mouaddib, and Phillippe Martinet

14:30 - 14:45  “Time-based Regulation of Auctions in P2P Outsorcing”
Anton Ivaschenko and Andrey Lednev

14:45 - 15:00  “Explaining Argumentation over Alignment Agreements”
Rouaa Wannous and Cassia Trojahn
13:30 - 15:00  Tower Room 1203  
Session 4: Agents in Smart Energy Management  
Chair: Dr. Joseph A. Giampapa, Carnegie Mellon University, USA  

13:30 - 14:00  “Boolean Games for Charging Electric Vehicles”  
Vadim Levit, Tal Grinshpoun, and Amnon Meisels  

14:00 - 14:30  “Agent-based Small-scale Energy Consumer Models for Energy Portfolio Management”  
Antonios Chrysopoulos, Christos Diou, Andreas L. Symeonidis, and Pericles A. Mitkas  

14:30 - 14:45  “Market-based EV Charging Coordination”  
David Dauer, Christoph Flath, Philipp Ströhle, and Christof Weinhardt  

14:45 - 15:00  “Evaluation of Community-based Electric Power Market with Agent-based Simulation”  
Ryo Kanamori, Shogo Kawaguchi, and Takayuki Ito  

15:00 - 15:30  Coffee Break  

15:30 - 17:00  7th Floor Atlanta BallRoom (B, C, D).  
WI-IAT Conference Panel: Connecting Big Data with Web Intelligence  

Panelists:  
Scott E. Fahlman, Carnegie Mellon University  
Ophir Frieder, Georgetown University  
Ling Liu, Georgia Institute of Technology (moderator)  
Cyrus Nourani, Acdmkrd and Copenhagen Business School  

Panel Statement  
Big data and data analytics are one of the hottest IT themes in both academics and industry worldwide. In this panel, the panelists will present their point of view on big data hypes from both brighter side and darker side of big data initiatives. Example questions that the Panelists may focus on include but not limit to:  

1) What is considered as big data challenges in the context of Web Intelligence,  
2) How big data and web intelligence may interact,  
3) Will big data change the way of how Web Intelligence is delivered or researched,  
4) Are there any dark-side of big data in the context of Web intelligence and how do we prepare to deal with them.  

Panelists may share their controversial points of view and provocative positions on issues, including above but not limited to, during panel presentation and discussion.  

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November 19

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   "Trust Between Humans and Intelligent, Autonomous Agents"
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   "Future Directions in Computer Science Research"
   Prof. John E. Hopcroft

10:00 - 10:30  Coffee Break

10:30 - 12:00  Tower Room 1202
   Session 7: Agent and Multi-Agent Systems Modeling
   Chair: Prof. Xiaolin Hu, Georgia State University, USA

10:30 - 11:00  “Behavior Pattern Detection for Data Assimilation in Agent Based Simulation of Smart Environments”
   Sanish Rai and Xiaolin Hu

11:00 - 11:15  “An Integrated Multi-Agent Model for Modelling Hazards within ATM”
   Tibor Bosse, Henk Blom, Sybert Stroeve, and Alexei Sharpanskykh

11:15 - 11:30  “Behaviorist Agent Architecture”
   Paulo Salem da Silva and Ana Cristina Vieira de Melo

11:30 - 11:45  “Integrating Human Recommendations in the Decision Process of Autonomous Agents”
   Nicolas Cote, Maroua Bouzid, and Abdel-Illah Mouaddib

11:45 - 12:00  “Studying Shared Situation Awareness by Agent-Based Simulation”
   Tibor Bosse, Kamil Majdanik, Kees Boersma, and Katrín Ingibergsdóttir

10:30 - 12:15  Tower Room 1203
   Session 8: Allocation and Coordination
   Chair: Dr. Toshihiro Matsui, Nagoya Institute of Technology, Japan

10:30 - 11:00  “Strategy Proof Mechanism for Complex Task Allocations in Prior Consent for Subtasks Completion Environment”
   Esther David and Efrat Mnisteski
11:00 - 11:30  “Autonomous Learning of Target Decision Strategies without Communications for Continuous Coordinated Cleaning Tasks”
Keisuke Yoneda, Chihiro Kato, and Toshiharu Sugawara

11:30 - 11:45  “A Multiagent-based Agile Work Distribution System”
Leo van Moergestel, Erik Puik, Daniël Telgen, Rick van Rijn, Benjamin Segerius,
and John-Jules Meyer

11:45 - 12:00  “Effective Task Allocation for Evolving Multi-Robot Teams in Dangerous Environments”
Tyler Gunn and John Anderson

12:00 - 12:15  “Determining the Effect of Personality Types on Human-Agent Interactions”
Hongying Du and Michael N. Huhns

10:30 - 12:30  Tower Room 1207
Tutorial “Ontology for Multimedia Applications”
Hiranmay Ghosh, Tata Consultancy

12:15 - 13:30  Lunch

13:30 - 15:00  Tower Room 1202
Session 9: Emotions in Agents
Chair: Dr. Tibor Bosse, VU University Amsterdam, The Netherlands

13:30 - 14:00  “Learning Emotion Regulation Strategies: a Cognitive Agent Model”
Tibor Bosse, Charlotte Gerritsen, Jeroen de Man, and Jan Treur

14:00 - 14:30  “A Hybrid Approach at Emotional State Detection: Merging Theoretical Models of Emotion with Data-Driven Statistical Classifiers”
Pedro Nogueira, Rui Rodrigues, Lennart Nacke, and Eugénio Oliveira

14:30 - 15:00  “A Peak Detection Method for Understanding User States for Empathetic Intelligent Agents”
Hyun-Jun Kim and Young Sang Choi

13:30 - 15:00  Tower Room 1203
Session 10: Agent Modeling and Analysis Methods
Chair: Dr. Paulo Salem, University of São Paulo, Paris-Sud University, Brasil, France

13:30 - 14:00  “An Approach for the Verification of Multi-Agent Systems by Formally Guided Simulations”
Paulo Salem da Silva and Ana Cristina Vieira de Melo
14:00 - 14:15  “An Execution Model of the Organisation-based Agent-Oriented Programming Language—Oragent”
Yin Chen, Xin-jun Mao, and Cui-yun Hu

14:15 - 14:30  “Analyzing Agent-based Models using Category Theory”
Rahmatollah Beheshti and Gita Sukthankar

14:30 - 14:45  “Role Modeling for Adaptive Multiagent Systems Engineering”
Kemas Muslim Lhaksmana, Yohei Murakami, and Toru Ishida

14:45 - 15:00  “Distributed Recommendation of Testers for Software Updates in Agent Systems”
Khalid Alhamed, Marius Silaghi, ihsan Hussien, and Yi Yang

14:00 - 15:00  Tower Room 1207
Tutorial (Part I) “Agents in Smart Energy Grids”
Michel Oey, Martijn Warnier and Frances Brazier, Delft University of Technology

15:00 - 15:30  Coffee Break

15:30 - 17:00  Tower Room 1202
Session 5: Coalition Formation I
Chair: Prof. Victor Lesser, University of Massachusetts Amherst, USA

15:30 - 16:00  “Preferences and Constraints for Agent Coalition Formation”
Souhila Arib and Samir Aknine

16:00 - 16:30  “A Fast Approach to Form Core-stable Coalitions Based on a Dynamic Model”
Filippo Bistaffa and Alessandro Farinelli

16:30 - 17:00  “Finding the Core for Coalition Structure Utilizing Dual Solution”
Atsushi Iwasaki, Suguru Ueda, and Makoto Yokoo

15:30 - 17:00  Tower Room 1203
Session 6: Agent Applications I
Chair: Dr. Saeid Belkasim, Georgia State University, USA

15:30 - 16:00  “Subject-Oriented Modeling and Execution of Multi-Agent Business Processes”
Albert Fleischmann, Udo Kannengiesser, Werner Schmidt, and Christian Stary

16:00 - 16:30  “A Natural Formalism and a Multi-Agent Algorithm for Integrative Multidisciplinary Design Optimization”
Tom Jorquera, Jean-Pierre Georgé, Marie-Pierre Gleizes, and Christine Régis
16:30 - 16:45  “Automatic Structured Decomposition of Manufacturing Actions in an Agent-Based Manufacturing System”
Daniël Telgen, Leo van Moergestel, Erik Puik, Arjen van Zanten, Ammar Abdulamir, and John-Jules Meyer

16:45 - 17:00  “Parametric Reasoning Agents Extend the Control Over Standard Behaviors”
Georges Dubus, Fabrice Popineau, Jean-Paul Sansonnet, and Yolaine Bourda

15:30 - 16:30  Tower Room 1207
Tutorial (Part II) “Agents in Smart Energy Grids”
Michel Oey, Martijn Warnier and Frances Brazier, Delft University of Technology

17:00 - 18:00  7th Floor Lobby, Student Posters Session (see p. 48-49 for details)

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Prof. Scott E. Fahlman

10:00 - 10:30  Coffee Break

10:30 - 11:45  Tower Room 1202
Session 11: Agent Adaptation and Learning
Chair: Prof. Toshiharu Sugawara, Waseda University, Japan

10:30 - 11:00  “Interactions of Multiple Self-Adaptive Mechanisms in Multi-Agent Systems”
David Sanderson, Jeremy Pitt, and Didac Busquets

11:00 - 11:15  “Limitation of Simultaneous Multiagent Learning in Non-stationary Environment”
Itsuki Noda

11:15 - 11:30  “Semi-Supervised Classification with Multiple Ants Maximal Spanning Tree”
Xiaohua Xu, Lin Lu, Ping He, Yue Ma, Qi Chen, and Ling Chen

11:30 - 11:45  “Combining Dynamic Reward Shaping and Action Shaping for Coordinating Multi-Agent Learning”
Xiangbin Zhu, Chongjie Zhang, and Victor Lesser

10:30 - 12:00  Tower Room 1203
Session 12: Coalition Formation II
Chair: Prof. Yves Demazeau, CNRS, France

10:30 - 11:00  “A Bottom-Up Search Algorithm for Dynamic Reformation of Agent Coalitions”
Ayan Dutta, Prithviraj Dasgupta, and Jose Baca

11:00 - 11:30  “sA-ANT: A Hybrid Optimization Algorithm for Multirobot Coalition Formation”
Sayan Sen and Julie Adams

11:30 - 12:00  “Emergence of Cooperation using Commitments and Complex Network Dynamics”
Mohammad Hasan and Anita Raja
10:30 - 12:15  
7th Floor Atlanta Ball Room (B, C, D),
Industry Invited and Contributed Papers
Chair: Prof. Ying Xie, Kennesaw State University, USA

10:30 - 10:55  “Search & Discovery in e-commerce using big data” Jayasimha Katukuri, Naren Chittar

10:55 - 11:15  “A Digital Hub Solution for the Blind” Ying Xie, Dusty Bray

11:15 - 11:35  “OpinionZoom, a modular tool to explore tourism opinions on the Web”
Edison Marrese-Taylor, Juan D. Velásquez, and Felipe Bravo-Marquez

Xuhong Zhang, Yanqing Zhang, Jing (Selena) He, and Frank Cobia

Cai-Nicolas Ziegler, Alexandru Oprea, Thomas Hornung, Holger Eggs,
and Georg Lausen

10:30 - 12:30  Tower Room 1207
Tutorial “Intelligent Web Crawling”
Denis Shestakov, Department of Media Technology, Aalto University

12:15 - 13:30  Lunch

13:30 - 15:00  Tower Room 1202
Session S13: Game Playing
Chair: Prof. Pericles Mitkas, Aristotle University of Thessaloniki, Greece

13:30 - 14:00  “A Poker Game Description Language”
João Pedro Correia, Luís Filipe Teófilo, and Henrique Lopes Cardoso

14:00 - 14:30  “Fuzzily Constrained Games”
Youzhi Zhang, Xudong Luo, and Ho-fung Leung

14:30 - 14:45  “Estimating the Odds for Texas Hold’em Poker Agents”
Luís Filipe Teófilo, Luis Paulo Reis, and Henrique Lopes Cardoso

14:45 - 15:00  “Boundedly Rational Agents Playing the Social Actors Game”
Christophe Sibertin-Blanc and Joseph El Gemayel

13:30 - 14:30  Tower Room 1203
Session S14: Agent Applications II
Chair: Dr. Itsuki Noda, National Institute of Advanced Industrial
Science and Technology, Japan
13:30 - 14:00  “Decentralized Telescope Management for Satellite Tracking”
Feyza Hafizoglu and Roger Mailler

14:00 - 14:30  “Image Compression Scheme Based on Multi-resolution Boundary-based Shape
Descriptors” Yanjun Zhao and Saeid Belkasim

14:30 - 14:45  “The Best-partitions Problem: How to Build Meaningful Aggregations”
Robin Lamarche-Perrin, Yves Demazeau, and Jean-Marc Vincent

14:45 - 15:00  “Stability Evaluation of Route Assignment Strategy by a Foresight-Route under a
Decentralized Processing Environment”
Jun Takahashi, Ryo Kanamori, and Takayuki Ito

15:00 - 15:30  Coffee Break

15:30 - 17:00  Industrial Session, 7th Floor Atlanta Ball Room (B, C, D)
Internet of Things

Panelists:
Alok Batra- Managing Partner at MQIdentity, Inc.
David Beberman- VP Marketing & Sales at Aicas, Inc.
Steve Gustafson- Director, Knowledge Discovery Lab at GE Global Research
Craig Harmon- President & CEO at Q.E.D. Systems
Michael Holdmann- EVP | Sales | Marketing | Strategy- Coversant Inc;

Panel Moderator:

Cyrus Nourani- Acdmkrd and Copenhagen Business School
http://www.linkedin.com/pub/cyrus-f-nourani/19/894/b73

Panel Statement

The Special Session IoT panel will allow Academia and Industry to participate together. The panelists will
deliver to the audience a short presentation of what their company’s main focus of current and future
technology needs for the IoT are. Each topic will be then open for discussion with the audience on
specific issues that industry is currently uncovering. This interaction is meant to allow the researchers
and industry to understand and cooperate on the technology limitations as well as start to develop a
roadmap for focus and potential partnerships for advancement of the IoT.

Topics covered will include:

Autonomics  Infrastructure
Data Management  Security, Privacy & Trust
Device Level Energy Issues  IoT Related Standardization
Poster Session

Following on the current trend of requirement on autonomous services and self decisive systems, the demand of intelligent servicing agents is growing tremendously. Alongside explosive growth in web, the resources and services available proclaims intelligent behaviors on their natural ask. Intelligent agent technology practically involves diverse fields, such as computer science, information technology, business, education, systems engineering, and robotics, to examine the design principles and performance characteristics of various approaches in intelligent agent technology, and increase the cross-fertilization of ideas on the development of autonomous agents and multi-agent systems among different domains. In comparison the web intelligence involves aforementioned diverse fields, to increase the cross-fertilization of ideas and explore the fundamental roles, interactions as well as practical impacts of Artificial Intelligence engineering and Advanced Information Technology on the next generation of Web systems. Though ample resources have been accumulated with legitimate pointers to explore these fields, the still remain many on-going activities that are completely untouched. The aim of this poster session is to promote interaction opportunity for researchers and practitioners, in particular advanced PhD students nearing their degree completion, to present and demonstrate their new and innovative work-in-progress in these fields. The prime attention for this track would be specifically directed towards the industrial counterpart of the research in this domain so that for the attendees can validate their work in the context of current industry standards, requirements and trends. This session emphasizes on exchanging, evaluating and enhancing novel research ideas of these domains through correspondence with industrial track participants and discussion of industry needs in future.

Poster Session Organizer:

Dr. Saurav Karmakar  
*Digital Reasoning Systems, USA*

Dr. Zejin (Jason) Ding  
*Barracuda Networks, USA*

Dr. Cheah Wai Shiang  
*Universiti Malaya at Sarawak, Malaysia*

Program Committee:

Dr. Vijay Raghavan,  
*Professor Center for Advanced Computer Studies, University of Louisiana*

Dr. Xiaolin Hu  
*Associate Professor Dept. of Computer Science, Georgia State University*
Dr. Jayasimha Reddy Katukuri  
*Staff Research Engineer, eBay*

Mr. Frank Cobia, J.D.  
*Manager, Online Data Services*

Debraj De  
*PhD Candidate, Dept of Computer Science, Georgia State University*

**Poster Session Papers:**

1. Reza Basseda, "PSL Business Process Models in Transaction Logic"
2. Jeffrey Hudack, Nathaniel Gemelli, and Jae Oh, "Modeling Spatial Information Diffusion with Self-Interested Agents"
4. Xing Wang, Ji Chen, Longbing Cao, and Xiangfu Meng, "The Foundation of Fuzzy Rule Interchange in the Semantic Web"
5. Saurabh Kumar, "Mining User Interests from Web History"
6. Camila Bezerra, Fred Freitas, and Filipe Santana, "Evaluating Ontologies with Competency Questions"
7. Snehasis Banerjee and Debnath Mukherjee, "Towards a Universal Notification System"
8. Artur Freitas, Rafael Bordini, Felipe Meneguzzi, and Renata Vieira, "Towards Integrating Ontologies in Multi-Agent Programming Platforms"
10. Mohini Agarwal and Bin Zhou, "Detecting Malicious Activities Using Backward Propagation of Trustworthiness Over Heterogeneous Social Graph"
11. Peter Polack, Marco Carvalho, and Thomas Eskridge, "Visualizing Multi-Agent Systems"
13. Alex C. Olivieri, “A semantic matching protocol to allow full semantic decoupling in the Publish/Subscribe pattern”