

# IEEE ISI 2010 Program

May 23, 2010 (Sunday)	
4:00pm-7:00pm	Conference and Workshop Registration
May 24, 2010 (Monday)	
7:30am-8:30am	Registration
8:30am-8:40am	Welcome and Conference Opening, <i>Waterfront Ballroom A &amp; B</i>
8:40am-9:40am	<p>Keynote Talk: <i>Waterfront Ballroom A &amp; B</i> Session Chair: Christopher C. Yang, Drexel University</p> <p><b>Dark Network Analysis: The Dark Web Experience</b> <i>Hsinchun Chen, University of Arizona</i></p>
9:45am-10:45am	Sessions M1-I, M1-II
	<p><b>M1-I: Terrorism Informatics</b> <i>Waterfront Ballroom A &amp; B</i> Session Chair: Ke Wang, Simon Fraser University</p> <p><i>Herbert H. Tsang, Andrew J. Park, Mengting Sun and Uwe Glässer.</i> <b>GENIUS: A Computational Modeling Framework for Counter-Terrorism Planning and Response</b> <i>Yulei Zhang, Shuo Zeng, Chun-Neng Huang, Li Fan, Ximing Yu, Yan Dang, Catherine Larson, Dorothy Denning, Nancy Roberts and Hsinchun Chen.</i> <b>Developing a Dark Web Collection and Infrastructure for Computational and Social Sciences</b></p>
	<p><b>M1-II: Innovative and Emerging Applications</b> <i>Princess Louisa Suite</i> Session Chair: Antonio Baida, University of Louisville</p> <p><i>Xu Chen and Tak Shing Yum.</i> <b>Cross Entropy Approach for Patrol Route Planning in Dynamic Environments</b></p> <p><i>Uwe Glässer, Piper Jackson, Ali Khalili Araghi and Hamed Yaghoubi Shahir.</i> <b>Intelligent Decision Support for Marine Safety and Security Operations</b></p>
10:45am-11:00am	Break
11:00am-12:00pm	Sessions M2-I, M2-II
	<p><b>M2-I: Computational Criminology (Invited Session)</b> <i>Waterfront Ballroom A &amp; B</i> Session Chair: Cathy Larson, University of Arizona</p>

	<p><b>Computational Criminology: The Past and the Future</b>  <i>Patricia L. Brantingham, Simon Fraser University</i></p>
	<p><b>M2-II: Information Systems Security and Cyber Security</b>  <i>Princess Louisa Suite</i>  Session Chair: Wei-Bin Lee, Feng Chia University</p> <p><i>Shun-Wen Hsiao, Yeali S. Sun, Meng Chang Chen and Hui Zhang. Cross-Level Behavioral Analysis for Robust Early Intrusion Detection</i></p> <p><i>Ayman Taha, Ayman Bahaa, Hani Mahdi and Ismail Abdel Ghafa. Agent Based Correlation Model for Intrusion Detection Alerts</i></p>
12:00pm-1:30pm	Lunch Break
1:30pm-2:30pm	<p style="text-align: center;">Sessions M3-I, M3-II</p> <p><b>M3-I: Computational Criminology</b>  <i>Waterfront Ballroom A &amp; B</i>  Session Chair: Arvind Verma, Indiana University</p> <p><i>Patricia Brantingham, Andrew Park, Richard Frank, Joseph Clare, Kathryn Wuschke and Mona Vajihollahi. Identifying High Risk Crime Areas using Topology</i></p> <p><i>Vladia Pinheiro, Vasco Furtado, Tarcisio Pequeno and Douglas Nogueira. Natural Language Processing Based on Semantic Inferentialism for Extracting Crime Information from Text</i></p> <p><b>M3-II: Terrorism and Security Informatics</b>  <i>Princess Louisa Suite</i>  Session Chair: Bill Glackman, Simon Fraser University</p> <p><i>Paul Elzinga, Jonas Poelmans, Stijn Viaene, Guido Dedene and Shanti Morsing. Terrorist Threat Assessment with Formal Concept Analysis</i></p> <p><i>Xuning Tang and Christopher Yang. Identifying Influential Users in an Online Healthcare Social Network</i></p>
2:30pm-3:30pm	<p style="text-align: center;">Sessions M4-I, M4-II</p> <p><b>M4-I: Network-based Data Analytics</b>  <i>Waterfront Ballroom A &amp; B</i>  Session Chair: Christopher C. Yang, Drexel University</p> <p><i>Michael Porter and Ryan Smith. Network Neighborhood Analysis</i></p> <p><i>Xuning Tang and Christopher Yang. Generalizing Terrorist Social Networks with K-Nearest Neighbor and Edge Betweenness for Social Network Integration and Privacy Preservation</i></p>

	<p><b>M4-II: Social Movements and Network Analysis</b>  <i>Princess Louisa Suite</i>  Session Chair: Ke Wang, Simon Fraser University</p> <p><i>David Zimbra and Hsinchun Chen. Comparing the Virtual Linkage Intensity and Real World Proximity of Social Movements</i></p> <p><i>Sibel Adali, Robert Escriva, Mark Goldberg, Mykola Hayvanovych, Malik Magdon-Ismail, Boleslaw Szymanski, William Wallace and Gregory Williams. Measuring Behavioral Trust in Social Networks</i></p> <p><i>Baojun Qiu, Kristinka Ivanova, John Yen and Peng Liu. Study of Effect of Node Seniority in Social Networks</i></p>
3:30pm-4:00pm	Break and Set-up of Poster Session
4:00pm-5:00pm	Sessions M5-I, M5-II
	<p><b>M5-I: Text Mining and Content Analysis</b>  <i>Waterfront Ballroom A &amp; B</i>  Session Chair: Fasco Furtado, University of Fortaleza</p> <p><i>Roger Bradford. Entity Refinement using Latent Semantic Indexing</i></p> <p><i>Gaston L. Huillier, Richard Weber, Alejandro Hevia and Sebastian Rios. Latent Semantic Analysis and Keyword Extraction for Phishing Classification</i></p> <p><i>Jenq-Haur Wang. Unsupervised Multilingual Concept Discovery from Daily Online News Extracts</i></p>
	<p><b>M5-II: Innovative and Emerging Applications</b>  <i>Princess Louisa Suite</i>  Session Chair: Mykola Hayvanovych, Rensselaer Polytechnic Institute</p> <p><i>Yan Gao and Xiaolin Zhang. Real Time Tracking of Remote Moving Object by Active Zoom Cameras</i></p> <p><i>Arvind Verma, Ramyaa Ramyaa, Raminder Singh and Suresh Marru. Rationalizing police patrol beats using Voronoi Tessellations</i></p>
6:00pm-7:30pm	Welcome Reception and Poster Presentation

May 25, 2010 (Tuesday)	
7:30am-8:30am	Registration
8:45am-9:45am	<p>Keynote Talk:  <i>Waterfront Ballroom A &amp; B</i>            Session Chair: Patricia L. Brantingham, Simon Fraser University</p> <p><b>Technological Challenges in the Investigation of Terrorism</b>  <i>Gary Bass, Deputy Commissioner Pacific Region and Commanding Officer            "E" Division for the RCMP in British Columbia</i></p>
9:45am-10:45am	<p>Keynote Talk:  <i>Waterfront Ballroom A &amp; B</i>            Session Chair: Patricia L. Brantingham, Simon Fraser University</p> <p><b>The US and the EU Differences in Anti-terrorism Efforts</b>  <i>Michael Gallagher, LaSalle University</i></p>
10:45am-11:15am	Break
11:15am-12:00pm	Sessions T1-I, T2-II
	<p><b>T1-I: Infrastructure Protection and Cyber Security</b>  <i>Waterfront Ballroom A &amp; B</i>            Session Chair: Herbert Tsang, Simon Fraser University</p> <p><i>Lei Wang, Tianbing Xia and Jennifer Seberry. Inter-Domain Routing Validator Based Spoofing Defence System</i></p> <p><i>Wei-Bin Lee, Hsing-Bai Chen and Ching-Chih Cheng. Secure Communication between Set-top Box and Smart Card for Fair Use in DTV Broadcasting</i></p>
	<p><b>T1-II: Innovative and Emerging Applications</b>  <i>Princess Louisa Suite</i>            Session Chair: Antonio Baida, University of Louisville</p> <p><i>John Warden. Intelligence for the Business of Crime Fighting (invited)</i></p> <p><i>Latifur Khan. Stream Mining and Its Applications toward Security (invited)</i></p>
12:00pm-1:30pm	Lunch Break
1:30pm-2:30pm	<p>Keynote Talk:  <i>Waterfront Ballroom A &amp; B</i>            Session Chair: Uwe Glässer, Simon Fraser University</p> <p><b>Decision Support with a Joint Multi-national Multi-agency Defense and Security Environment</b>  <i>Éloi Bossé, Defence Research &amp; Development Canada (DRDC) Valcartier</i></p>

2:30pm-3:30pm	<p style="text-align: center;">Sessions T2-I, T2-II</p> <hr/> <p><b>T2-I: Computational Criminology</b>  <i>Waterfront Ballroom A &amp; B</i>  Session Chair: Cathy Larson, University of Arizona</p> <p><i>Amir H. Ghaseminejad and Paul Brantingham. An Executive Decision Support System For Longitudinal Statistical Analysis of Crime and Law Enforcement Performance</i></p> <p><i>Andrew Park, Valerie Spicer, Monique Guterres, Patricia Brantingham and Greg Jenion. Testing Perception of Crime in a Virtual Environment</i></p> <hr/> <p><b>T2-II: Information Systems Security and Terrorism Informatics</b>  <i>Princess Louisa Suite</i>  Session Chair: Latifur Khan, University of Texas at Dallas</p> <p><i>Antonio Badia. Balancing Security and Information Sharing on Multilevel Security Databases</i></p> <p><i>Xiaochen Li, Wenji Mao, Daniel Zeng and Fei-Yue Wang. Automatic Construction of Domain Theory for Attack Planning</i></p>
3:30pm-4:00pm	Break
4:00pm-5:30pm	<p><b>Panel Discussion:</b>  <i>Waterfront Ballroom A &amp; B</i></p> <p><b>Communication and Information Systems for Inter-Agencies Integration: A Safety and Security Perspective</b></p> <p>Panel Chair:  <i>Adel Guitouni, Defence Scientist, Command and Control Decision Support System Section, Defence Research &amp; Development Canada Valcartier</i></p> <p>Panelists:  <i>Major Axel Sundquist (CF), J6 Officer-in-Charge Communication and Information System Officer, Joint Task Force Games</i>  <i>Inspector Dennis Crowe (RCMP), Officer-in-Charge Informatics, Vancouver 2010 Integrated Security Unit</i>  <i>LCol Paul Fleet, Deputy Chief of Staff Operations, Joint Task Force Games</i>  <i>Mike Webb, Manager, Telecommunications and Systems, Emergency Management BC</i>  <i>Lynne Genik, Defence Scientist, DRDC Ottawa</i></p>
6:30pm-8:30pm	Conference Banquet and Award Ceremony

May 26, 2010 (Wednesday)	
7:00am-10:00am	Registration
8:30am-9:30am	<p>Session W1-I</p> <p><b>W1-I: Innovative and Emerging Applications</b>  <i>Waterfront Ballroom A &amp; B</i>            Session Chair: Richard Colbaugh, Sandia National Laboratories</p> <p><i>Kristin Glass, Richard Colbaugh and Max Planck. Automatically Identifying the Sources of Large Internet Events</i></p> <p><i>Svitlana Volkova and William Hsu. Computational Knowledge and Information Management in Veterinary Epidemiology</i></p>
9:30am – 10:30am	<p>Session W2-I</p> <p><b>W2-I: Network-based Data Analytics</b>  <i>Waterfront Ballroom A &amp; B</i>            Session Chair: Latifur Khan, University of Texas at Dallas</p> <p><i>Huiqi Zhang and Ram Dantu. Predicting Social Ties in Mobile Phone Networks</i></p> <p><i>Richard Colbaugh and Kristin Glass. Early Warning Analysis for Social Diffusion Events</i></p>
10:30am-10:45am	Break
10:45am-12:15pm	<p>Session W3-I and Panel Discussion</p> <p><b>W3-I: Text Mining and Content Analysis</b>  <i>Waterfront Ballroom A &amp; B</i>            Session Chair: Kristin Glass, New Mexico Tech</p> <p><i>Jonathan Brett Crawley and Gerhard Wagner. Desktop Text Mining for Law Enforcement</i></p> <p><i>Qing Chen, Timothy Shipper and Latifur Khan. Tweets Mining Using WIKIPEDIA and Impurity Cluster Measurement</i></p> <p><i>Richard Colbaugh and Kristin Glass. Estimating Sentiment Orientation in Social Media for Intelligence Monitoring and Analysis</i></p> <p><b>Panel Discussion:</b>  <i>Princess Louisa Suite</i></p> <p><b>Model Interoperability</b></p> <p>Panelists:  <i>Antonio Sanfilippo, PNNL</i>  <i>Alexander Levis, GMU</i></p>

	<i>Lucas Overbey, SPAWAR</i> <i>Bill Reynolds, LSS Inc.</i> <i>Ed Waltz, BAE Systems</i>
12:15pm-12:30pm	<b>Closing Remarks</b>

The **Workshop on Current Issues in Predictive Approaches to Intelligence and Security Analysis (PAISA)** is held in parallel with IEEE ISI 2010 on May 26.