### IEEE ISI 2008 Detailed Program

#### June 18, 2008 (Wednesday)

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<th>Time</th>
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<tr>
<td>7:30 - 8:00 AM</td>
<td>Registration</td>
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<tr>
<td>7:45 - 8:00 AM</td>
<td>Welcome and Conference Opening</td>
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<tr>
<td>8:00 - 9:00 AM</td>
<td><strong>Keynote Talk:</strong> Countering Terrorism</td>
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<td>Dr. Jarret Brachman</td>
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<td>9:00 - 10:30 AM</td>
<td><strong>Invited Talk:</strong> Data Mining for Security Applications: Mining Concept-Drifting Data Streams to Detect Peer to Peer Botnet Traffic</td>
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<td>Dr. Bhavani Thurasingham</td>
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<td>10:30 - 10:45 AM</td>
<td>Break</td>
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<td>10:45 AM - 12:15 PM</td>
<td><strong>W1-I</strong> Knowledge Discovery and Cyberactivism</td>
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<td>Analysis of Cyberactivism: A Case Study of Online Free Tibet Activities</td>
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<td>Tianjun Fu and Hsinchun Chen</td>
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<td>Developing Ideological Networks using Social Network Analysis and Writeprints: A Case Study of the International Falun Gong Movement</td>
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<td>Yi-Da Chen, Ahmed Abbasi and Hsinchun Chen</td>
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<td>Anurat Chapanond and Mukkai Krishnamoorthy</td>
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<td>12:15 - 1:45 PM</td>
<td>Lunch</td>
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<td>1:45 - 3:15 PM</td>
<td><strong>W2-1</strong> Knowledge Discovery and Visualization</td>
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<td>Subverting Prediction in Adversarial Settings</td>
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<td>J.G. Dutrisac and D.B. Skillicorn</td>
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<td>Hiding Clusters in Adversarial Settings</td>
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<td>WikiNetViz: Visualizing Friends and Adversaries in Implicit Social Networks</td>
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<td>Minh-Tam Le, Hoang-Yu Dang, Ee-Peng Lim and Anwitaman Datta</td>
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<td>3:15 - 5:15 PM</td>
<td>W2-II</td>
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<td>5:15 - 7:15 PM</td>
<td>W2-III</td>
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<td><strong>Industrial Session</strong></td>
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<td>HP</td>
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<td>Getting the Fundamentals Right – Ensuring an operational infrastructure</td>
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<td>John Glenn, Director, Defence &amp; Intelligence Asia Pacific and Japan Hewlett-Packard</td>
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<td>IBM</td>
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<td>Smart Surveillance for security and beyond</td>
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<td>Mr. Aik Meng Seow, Digital Video Surveillance - Asia Pacific Lead Security &amp; Privacy Services, IBM</td>
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<td>SolvenToSOFT</td>
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<td>Turning information into actionable intelligence using i2 visualization analysis solutions</td>
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<td>David Scott, International Channel Manager, i2 Ltd</td>
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</table>
Terrorism Informatics - Bioterrorism
Bioterrorism Event Detection based on the Markov Switching Model: A Simulated Anthrax Outbreak Study
Hsin-Min Lu, Daniel Zeng and Hsinchun Chen
Simulating Bioterrorism Thru Epidemiology Approximation
Ryan Layfield, Murat Kantarcioglu and Bhavani Thuraisingham
An Integrated Approach to Mapping Worldwide Bioterrorism Research Capabilities
Yan Dang, Yulei Zhang, Nichalin Suakkaphong, Cathy Larson and Hsinchun Chen

W2-III
Intrusion Detection
Unknown Malcode Detection via Text Categorization and the Imbalance Problem
Robert Moskovitch, Dima Stoppel, Clint Feher, Nir Nissim and Yuval Elovici
Automated Network Feature Weighting-Based Anomaly Detection
Dat Tran, Wanli Ma and Dharmendra Sharma
A Study on the Feature Selection of Network Traffic for Intrusion Detection Purpose
Wanli Ma, Dat Tran and Dharmendra Sharma

3:15 - 3:30 PM Break
3:30 - 5:00 PM W3-I
Web Mining
Analyzing Content Development and Visualizing Social Interactions in Web Forum
Christopher C. Yang and Tobun D. Ng
Link Analysis Based on Webpage Co-occurrence Mining - a Case Study on a Notorious Gang Leader in Taiwan
Yi-Ting Peng and Jau-Hwang Wang
A Study on Early Decision Making in Objectionable Web Content Classification
Lung-Hao Lee, Cheng-Jye Luh and Chih-Jie Yang

W3-II
Emergency Response and Infrastructure Protection
A Game Theory Approach for an Emergency Management Security Advisory System
Yi-Ming Chen, Dachrahn Wu, and Cheng-Kuang Wu
Multiplicatively-Weighted Order-k Minkowski-Metric Voronoi Models for Disaster Decision Support Systems
Ickjai Lee and Christopher Torpelund-Bruin
Keying Material Based Key Pre-distribution Scheme
Zhihong Liu, Jianfeng Ma, Qiping Huang and SangJae Moon

W3-III
Industrial Session
Neotech Photoelectric Inc.
Innovation of CCTV by Neotech
Janine Hsu, Overseas Sales, Neotech Photoelectric Inc.

June 19, 2008 (Thursday)

7:30 - 8:00 AM Registration
8:00 - 9:00 AM Keynote Talk:
Cyber Crime and Challenges for Crime Investigation in the Information Era
Dr. Henry C. Lee
9:00 - 10:30 AM Invited Talk:
Data Mining for Social Network Analysis
Dr. Jaideep Srivastava
Social Computing: Fundamentals and Applications
Dr. Feiyue Wang
10:30 - 10:45 AM Break
10:45 AM - 12:15 PM T1-I
Information Privacy and Cybercrime
Information Sharing and Privacy Protection of Terrorist or Criminal Social Networks
Christopher C. Yang

A Framework for Privacy-Preserving Cluster Analysis
Benjamin C. M. Fung, Ke Wang, Lingyu Wang and Mourad Debbabi

Botnets, and the CyberCriminal Underground
Clinton J. Mielke II and Hsinchun Chen

T1-II
Cyber Security
PRM-Based Identity Matching Using Social Context
Jiexun Li, G. Alan Wang and Hsinchun Chen

Efficient and Complete Remote Authentication Scheme with Smart Cards
Wen-Gong Shieh and Wen-Bing Horng

A New On-line Signature Verification by Spatio-Temporal Neural Network
Maryam Moghadam Fard, Mehdi Moghadam Fard and Nasser Mozayani

T1-III
Industrial Session
Thales
End to end security approach
Andrea Berna, Senior Consulting Manager for the Information System Security activities of Thales

Telecom Technology Center

Infocom Security Products Evaluation and Certification
Elizabeth B. Hsu, Director, Telecom Technology Center

Alpha Pricing Co., Ltd.
Network Video Surveillance Over IP Application on Homeland Security
Steve Chen, Vice President, Alpha Pricing Co., Ltd.

12:15 - 1:45 PM Lunch
1:45 - 3:15 PM T2-1
Data Processing and Indexing
Constrained K-Closest Pairs Query Processing Based on Growing Window in Crime Databases
Shaojie Qiao, Changjie Tang, Huidong Jin, Shucheng Dai and Xingshu Chen

Distributed Processing of Event Data and Multi-faceted Knowledge in a Collaboration Federation
Stanley Y.W. Su, Howard Beck, Seema Degwekar, Jeff DePree, Xuelian Xiao, Chen Zhou, and Minsoo Lee

A Latent Semantic Indexing and WordNet based Information Retrieval Model for Digital Forensics
Lan Du, Huidong Jin, Olivier de Vel and Nianjun Liu

T2-II
Dark Web
Discovery of Improvised Explosive Device Content in the Dark Web
Hsinchun Chen

IEDs in the Dark Web: Genre Classification of Improvised Explosive Device Web Pages
Hsinchun Chen

Cyber Extremism in Web 2.0: An Exploratory Study of International Jihadist Groups
Hsinchun Chen, Sven Thoms and Tianjun Fu

T2-III
Infrastructure Protection
RiskPatrol: A Risk Management System Considering the Integration Risk Management with Business Continuity Processes
Shi-Cho Cha, Pei-Wen Juo, Li-Ting Liu and Wei-Ling Chen

A Novel Risk Assessment System for Port State Control Inspection
Zhong Gao, Guannüng Lu, Mengjui Liu and Meng Cui

Restoration of Linear Motion and Out-of-Focus Blurred Images in Surveillance Systems
Chung-Hao Chen, Te-Yu Chien, Wen-Chao Yang and Che-Yen Wen
### 3:15 - 3:30 PM
**Break**

### 3:30 - 5:00 PM
**T3-I**
**Knowledge Discovery and Text Mining**
- Sentiment and Affect Analysis of Dark Web Forums: Measuring Radicalization on the Internet
  *Hsinchun Chen*
- Detecting Deception in Testimony
  *A. Little and D.B. Skillicorn*
- A Locality Model of the Evolution of Blog Networks
  *Mark Goldberg, Malik Magdon-Ismail, Stephen Kelley and Konstantin Mertsalov*
- A Template Alignment Algorithm for Question Classification
  *Cheng-Lung Sung, Min-Yuh Day, Hsu-Chun Yen and Wen-Lian Hsu*

**T3-II**
**Intrusion Detection**
- Intrusion Activity Projection for Cyber Situational Awareness
  *Shanchieh J. Yang, Stephen Byers, Jared Holsopple, Brian Argauer and Daniel Fava*
- Advanced Sensor Fusion Technique for Enhanced Intrusion Detection
  *Ciza Thomas and Narayanaswamy Balakrishnan*
- Depth Evaluation Intrusion Detection using Coloured Stochastic Petri Nets
  *Chien-Chuan Lin and Ming-Shi Wang*
- Anomaly Detection in High-dimensional Network Data Streams: A Case Study
  *Ji Zhang, Qiqing Gao and Hai Wang*

**T3-III**
**Panel: Cybercrime and Social Computing**
*Danel Zeng, Sheau-Dong Lang, Raymond Hsieh, Michael Chau, and Christopher C. Yang*

### 6:00 - 8:30 PM
**Banquet, Poster Exhibition, and Awards Ceremony**

### June 20, 2008 (Friday)

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| 8:00 - 9:00 AM  | **Keynote Talk:** Homeland Security Data Mining using Social Network Analysis  
|                 | *Dr. Hsinchun Chen*          |
| 9:00 - 10:30 AM | **Invited Talk:** Intelligence Pattern Recognition and Biometrics  
|                 | *Dr. Patrick Wang*           |
|                 | Real Time Intrusion Prediction, Detection and Prevention Programs  
|                 | *Dr. Ajith Abraham*         |
| 10:30 - 10:45 AM| **Break**                     |
| 10:45 AM - 12:15 PM | **F1-I**  
|                 | **Knowledge Discovery and Text Mining**  
|                 | A Template Alignment Algorithms for Mining Web Access Patterns  
|                 | *Wenjia Wang and Phuong Thanh Cao-Thai*  
|                 | Swarm Intelligence Based Rough Set Reduction Scheme for Support Vector Machines  
|                 | *Hongbo Liu and Ajith Abraham*  
|                 | A Study of Anti-root Agent Mechanisms and Process on Online Games  
|                 | *N.W. Lo and Shion-Hung Chen*  |

**F1-II**
**Intrusion Detection and Infrastructure Protection**
- A Real-time Network Intrusion Detection System Based on Incremental Mining Approach
  *Ming-Yang Su, Kai-Chi Chang, Hua-Fu Wei and Chun-Yuen Lin*
- Reading Order Independent Grouping Proof for RFID Tags
  *Yuanhung Lien, Xuefei Leng, Keith Mayes and Jung-Hui Chiu*
- A Fast Algorithm for Data Erasure
  *Guomeng Wang and Yanping Zhao*
F1-III

Cyber Security

Secure Remote Control Model for Information Appliances
Wen-Gong Shieh, Jian-Min Wang, and Wen-Bing Horng

Efficient Keyword Index Search over Encrypted Data of Groups
Hyun-A Park, Justin Zhan, Gary Blosser and Dong Hoon Lee

Data Hiding Using VQ Index File
Yu-Jie Chang and Ja-Chen Lin