Wednesday, August 22, 2012

08:00-09:00 Registration

09:00-09:30 Opening: Welcome Session
Room: O-100

09:30-10:30 Keynote: The Utilization of Forensic Evidence in IED Incidents
Speaker: Henry C. Lee, Room: O-100, Chair: TBD

10:30-11:00 Coffee Break

11:00-12:30 Session: Terrorism Informatics I

Room O-95

Chair: TBD

- Extracting and Networking Emotions in Extremist Propaganda
  Travis Morris

- Countering Bioterrorism: Why smart buildings should have a code of ethics
  Hervé Borisson and Timothy Mitchener-Nissen

- Identifying Important Nodes in Weighted Networks using Generalized Centrality Measures
  Bisharat Rasool Memon

11:00-12:30 Session: Computational Criminology I

Room O-96

Chair: TBD

- Dynalink: A Framework for Dynamic Criminal Network Visualization
  Andrew Park, Herbert Tsang and Patricia Brantingham

- Framing the Attacker in Organized Cybercrime
  Muhammad Adnan Tariq, Joel Brynielsson and Henrik Artman

- SPORS: A Suspect Recommendation System based on Offenders’ Reconstructed Spatial Profile
  Richard Frank

12:30-14:00 Lunch Break
Restaurant

14:00-15:30 Session: Terrorism Informatics II

Room O-95

Chair: TBD

- A Prediction of Terrorist Distribution Range Radius and Elapsing Time: A Case Study in Southern Parts of Thailand
  Athakorn Kengpol and Pakorn Neungrit

- Analysis of Weak Signals for Detecting Lone Wolf Terrorists
  Joel Brynielsson, Andreas Horndahl, Fredrik Johansson, Lisa Kaati, Christian Mårtenson and Pontus Svenson

- Al Qaeda Affiliates Operating in Failed States: The Next Front in the War on Terror
  Anthony Celso

14:00-15:30 Session: Computational Criminology II

Room O-96

Chair: TBD

- A Computational Model for Predicting the Location of Crime Attractors on a Road Network
  Natalia Iwanski, Richard Frank, Andrew Reid and Vahid Dabbaghian

- Exploring a Warrior Paradigm to Design Out Cybercrime
  Mortaza S. Bargh, Sunil Choenni, Ingrid Mulder and Roland Pastoor

- How Many Ways Do Offenders Travel – Evaluating the Activity Paths of Offenders
  Richard Frank and Bryan Kinney

15:30-16:00 Coffee Break

16:00-17:00 Keynote: Detecting Emergent Terrorism Events: Finding Needles in Information Haystacks
Speaker: James R. (Bob) Johnson, Room: O-100, Chair: TBD

17:30-18:30 Social Event: Cocktails Reception/Posters Session
Thursday, August 23, 2012

09:00-09:30 Registration

09:30-10:30 **Keynote: Science and Technology in Support of Border Security**
Speaker: Ahn Duong, Room: O-100, Chair: TBD

10:30-11:00 Coffee Break

11:00-12:30 **Session: Infrastructure Protection and Information Systems Security I**
Chair: TBD

- **Room O-95**
  - To Incorporate Sequential Dynamic Features in Malware Detection Engines
    Mojtaba Eskandari, Zeinab Khorshidpur and Sattar Hashemi
  - A model for identity in the cyber and natural universes
    Duncan Hodges and Sadie Creese
  - Mixed Holistic Reductionist Approach for Impact Assessment of Cyber Attacks
    Chiara Foglietta, Giusy Digiola, Stefano Panzieri and Alessandro Falleni

11:00-12:30 **Session: Information Sharing and Data/Text Mining I**
Chair: TBD

- **Room O-96**
  - Data Mining Applications for Fraud Detection in Securities Market
    Koosha Golmohammadi and Oxmar Zaiane
  - Measuring Relatedness and Augmentation of Information of Interest within Free Text Law Enforcement Documents
    James Johnson, Anita Miller, Latifur Khan and Bhavani Thuraisingham
  - Can Computers Help Us to Better Understand Different Cultures? Toward a Computer-Based CULINT
    Danny Livshits, Newton Howard and Yair Neuman

11:00-12:30 **Workshop: OSINT-WM Symposium**
The HiTS/ISAC Social Network Analysis Tool
Hirad Asadi, Christian M°artenson, Pontus Svenson and Magnus Sk¨old
Detecting Key Players in Terrorist Networks
Lisa Kaati, Ahmed Rezine and Ala Berzinji
Sentiment Network Analysis of Taleban and RFE/RL Open-Source Content About Afghanistan
James Danowski

12:30-14:00 Lunch Break
Restaurant

14:00-15:30 **Session: Infrastructure Protection and Information Systems Security II**
Chair: TBD

- **Room O-95**
  - A Machine Learning Approach to Android Malware Detection
    Justin Sahs and Latifur Khan
  - Developing a Keystroke Biometric System for Continual Authentication of Computer Users
    John Monaco, Ned Bakelman, Sung-Hyuk Cha and Charles Tappert
  - Open Source Intelligence in Disaster Management
    Gerhard Backfried, Christian Schmidt, Mark Pfeiffer and Gerald Quirchmayr
  - Structured Documents: Signatures and Deception
    Natalia Danilova and David Stupples

14:00-15:30 **Session: Information Sharing and Data/Text Mining II**
Chair: TBD

- **Room O-96**
  - Estimating Citizen Alertness in Crises using Social Media Monitoring and Analysis
    Fredrik Johansson, Joel Bryniessson and Maribel Narganes Quijano
  - Identifying Distinct Components of a Multi-Author Document
    Navot Akiva and Moshe Koppel
  - Application of Natural Language Processing and Evidential Analysis to Web-Based Intelligence Information Acquisition
    Natalia Danilova and David Stupples

14:00-15:30 **Session: Enterprise Risk Management and Information Systems Security I**

- **Room O-99**
  - Laundering sexual deviance: Targeting online pornography through anti-money laundering
    Alex Antoniou and Gauri Sinha
  - Comparing Methods for Detecting Child Exploitation Content Online
    Bryce Westlake, Martin Bouchard and Richard Frank
  - Analyzing chat conversations of pedophiles with temporal relational semantic systems
    Paul Elzinga, Karl-Erich Wolff, Jonas Poelmans, Guido Dedene and Stijn Viaene

15:30-16:00 Coffee Break

16:00-17:00 **Keynote: From Dark Web to GeoPolitical Web: Exploring the Value of Social Media Informatics**
Speaker: Hsinchun Chen, Room: O-100, Chair: TBD

18:00-24:00 **Social Event: Buses to Egeskov Castle / Dinner on Jomfru Rigborg Restaurant / Best Paper Awards**
### Friday, August 24, 2012

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>09:00-09:30</td>
<td>Registration</td>
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</table>
| 09:30-10:30 | Keynote: OSINT, The Internet and Privacy  
Speaker: Clive Best, Room: O-100, Chair: TBD |
| 10:30-11:00 | Coffee Break                                                        |
| 11:00-12:30 | Session: Infrastructure Protection and Information Systems Security II  
Chair: TBD  
Community of Intelligence: The secret behind intelligence-led policing  
Marielle Den Hengst and Jan Ter Mors  
Perception in International Conflict: An agent-based approach  
Newton Howard  
Technologies for granting balance between security and privacy in video-surveillance  
Paolo D’Arminio, Ricardo Buendia Iglesias, Sateesh Pedagadi, Orwell James, Janusz Cichowski, Piotr Dalka, Damian Ellwart, Inga Kroener and Daniel Neyland  
Behavioral Analysis and Visualization of Fast-Flux DNS  
Andi Fitriah Abdul Kadir, Raja Azrina Raja Othman and Normaziah Abdul Aziz |

### Room O-95

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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| 11:00-12:30 | Session: Social Network Analysis  
Chair: TBD  
Data Base Investigation as a Ranking Problem  
Cor Veenman  
Semantic Network Analysis of Islamist Sources using Time Slices as Nodes and Semantic Similarity as Link Strengths: Some Implications for Propaganda Analysis about Jihad  
James Danowski  
Association and Centrality in Criminal Networks  
Rasmus Rosenqvist Petersen |

### Room O-96

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</table>
| 11:00-12:30 | Session: Enterprise Risk Management and Information Systems Security II  
Chair: TBD  
Detecting Fraud in Financial Reports  
David Skillicorn and Lynette Purda  
Detecting Anomalous Maritime Container Itineraries for Anti-fraud and Supply Chain Security  
Elena Camossi, Tatyana Dimitrova and Aris Tsois  
How Transparency Improves the Control of Law Enforcement Authorities’ activities?  
Leila Ovaska, Jutta Tervahartiala, Sofia Tervola, Sari Johansson and Jyri Rajamäki |

### Room O-99

<table>
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<th>Time</th>
<th>Event</th>
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| 12:30-12:45 | Closing Session  
Room: O-100 |

### Wednesday, August 22, 2012

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<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>17:30-18:30</td>
<td>EISIC 2012 Poster Session</td>
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</table>
| 18:30-19:00 | Cocktails Reception  
ICARE: A scenario-based method for the RIBS project  
Hervé Borrion and Noémie Bouhana  
Resilience of Cyber-physical System: A Case Study of Safe School Environment  
Jyri Rajamäki, Paresh Rathod, Anu Ahlgren, Johanna Aro, Mari Takari and Sami Ahlgren  
Information Security Aspects of the 22/7 Attacks  
Hanno Langweg  
Network Intelligence: an Emerging Discipline  
David Johnson and Newton Howard  
Proactive Digital Forensics: The ever-increasing Need for Standardization  
Antonis Mouhtaropoulos, Chang-Tsun Li and Marthie Grobler  
Pattern Theory in Intelligence Analysis  
Tove Gustavi and Pontus Svenson. |
# Workshop on Innovation in Border Control 2012

**22-23 August 2012, Odense, Denmark**

Co-located with the European Intelligence and Security Informatics Conference (EISIC 2012)

## Wednesday, August 22, 2012

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<tbody>
<tr>
<td>09:00-10:45</td>
<td>Registration</td>
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<tr>
<td>10:45-11:00</td>
<td>Opening: Welcome Session</td>
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<tr>
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<td>Room: O-99</td>
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<tr>
<td>11:00-11:30</td>
<td>Invited Talk: The tension between operational border security needs and scientific research: Frontex goals, activities, and challenges – the European perspective</td>
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<tr>
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<td>Speaker: Edgar Beugels</td>
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<td>Room: O-99, Chair: TBD</td>
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<td>11:30-12:00</td>
<td>Invited Talk: Recent Advances in Deception Detection and Risk Assessment</td>
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<td>Speaker: Jay Nunamaker, Aaron Elkins and Judee K. Burgoon</td>
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<td>12:00-12:30</td>
<td>Invited Talk: Border security research at JRC</td>
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<td>Speaker: Günter Schumacher, Fivos Andritsos, Harm Greidanus</td>
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<td>12:30-14:00</td>
<td>Lunch Break</td>
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<td>Restaurant</td>
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<td>14:00-15:30</td>
<td>Technical Session I</td>
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<td>Chair: TBD</td>
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<tr>
<td></td>
<td>Social Simulations for Border Security</td>
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<tr>
<td>Room O-99</td>
<td>Maciej Latek, Seyed Mussavi Rizi, Andrew Crooks and Mark Fraser</td>
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<td>Predicting Veracity from Linguistic Indicators</td>
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<td>Judee Burgoon, Lauren Hamel, Tin Tin Qin and Jeffrey Proudfoot</td>
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<td>On Refining Border Security News Event Geo-tagging through Deployment of Lexico-Semantic Patterns</td>
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<td>Vanni Zavarella, Jakub Piskorski, Ana Sofia Esteves and Stefano Buci</td>
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<tr>
<td>15:30-16:00</td>
<td>Coffee Break / Poster Session</td>
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<tr>
<td>16:00-17:30</td>
<td>Technical Session II</td>
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<td>Chair: TBD</td>
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<tr>
<td>Room O-99</td>
<td>Ten Reasons Why IRIS Needed 20:20 Foresight - Some lessons for introducing biometric border control systems</td>
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<td>Anthony Palmer and Chris Hurrey</td>
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<td>Multi-Sensor Multi-Target Tracking for Infrastructure Protection</td>
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<td>Maria Victoria Moreno Cano, Carolina Piñana Diaz, Rafael Toledo-Moreo, Miguel Angel Zamora and Antonio Skarmeta</td>
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<td>Use of an automatic under-vehicle inspection system as a tool to streamline vehicle screening at ports of entry and security checkpoints</td>
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<td>Erick Ruiz and Larry Head</td>
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## Thursday, August 23, 2012

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<tbody>
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<tr>
<td>10:30-11:00</td>
<td>Coffee Break</td>
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<tr>
<td>11:00-11:40</td>
<td>Technical Session III</td>
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<td>Room O-100</td>
<td>Chair: TBD</td>
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<td>Creation of an EU-level Information Exchange Network in the Domain of Border Security</td>
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<td>Gregorio Ameyugo, Michal Art, Ana Sofia Esteves and Jakub Piskorski</td>
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<td>OptaSense Distributed Acoustic Sensing (DAS) for Border Security Applications</td>
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<td>Arch Owen, Jerry Worsley and Gregory Duckworth</td>
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<tr>
<td>11:40-12:20</td>
<td>Technical Session IV</td>
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<td>Room O-100</td>
<td>Chair: TBD</td>
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<td>A Comparison of Invasive and Noninvasive Sensors in the Concealed Information Test</td>
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<td>Jeffrey Proudfoot, Nathan Twyman and Judee Burgooon</td>
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<td>Benchmark Driven Framework for Development of Emotion Sensing Support Systems</td>
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<td>Senya Polikovsky, Alejandra Quiros, Yoshinari Kameda, Judee Burgooon and Yūichi Ohta</td>
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<td>12:20-14:00</td>
<td>Lunch Break</td>
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<td>TBD</td>
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<tr>
<td>14:00-16:00</td>
<td>Technical Session V</td>
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<td>Room O-100</td>
<td>Chair: TBD</td>
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<td>Performance and Risk Analysis for Border Management Applications: a model-driven approach and a perspective view</td>
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<td>Mayra Sacanambuy, Bojan Cukic and Vittorio Cortelless</td>
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<td>The TALOS project - autonomous robotic patrol vehicles Demo Papers</td>
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<td>Michal Tanas, Grzegorz Taberski, Witold Holubowicz, Krzysztof Samp, Agnieszka Sponska, Jakub Glowka and Mateusz Macias</td>
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<tr>
<td>14:40-15:40</td>
<td>Panel Discussion: Fostering border security-related research</td>
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Date Revised: 28/7/2012
Conference Venue

University of Southern Denmark
Odense, Denmark
Campusvej 55, DK-5230 Odense M, Denmark
Tel.: +45 6550 1000

Venue Map