ARES 2013
2 - 6 September 2013, Regensburg, Germany

3rd IFIP International Workshop on
Security and Cognitive Informatics for Homeland Defense
(SeCIHD'13)

2-6 September 2013, Regensburg, Germany
http://isyou.info/conf/secihd13/

in conjunction with the 8th ARES Conference (ARES 2013)
http://www.ares-conference.eu/

Overview

In the last years significant work has been undertaken by Governments and local agencies with respect to the protection of critical infrastructures and public-private sector coordination in the event of a cyber-attack. Threats to cities and their social infrastructures, e.g. from crime, and terrorism, endanger human life directly and indirectly. Resilience of critical infrastructures is gaining importance as a core concept to cope with such threats. In general, this means strengthening social infrastructures to prevent or mitigate such threats and to consistently deliver the intended services in a trustworthy and "normal" way even in changing situations. Information and communication infrastructure (ICT) is a primary part of the social infrastructure and therefore one of the central objects of these attacks. As a consequence, effective response capabilities must be properly organized and closely coordinated because, at the time of a cyber-attack, it is not possible to immediately determine whether the attacker is a script kiddie, an insider, a rogue actor (organized crime, terrorist organization, or radical), or a nation state.

Unlike traditional Defense categories (i.e., land, air, and sea), the capabilities required to respond to an attack on critical infrastructures will necessarily involve infrastructure owned and operated by both the public and the private sector. Exercising for effective digital systems security becomes thus a crucial task in order to strengthen the resilience of IT systems against arising threats. Advanced information technologies that are able to analyze and interpret complex patterns or situations and take the proper decisions in terms on countermeasures the basic building blocks of the above solutions.

In this context, it is worth noting research that combines security and defense aspects with achievements in designing advanced systems for the acquisition and sophisticated semantic analysis of complex image patterns and group behaviors. Such systems use cognitive models of semantic interpretation and can be applied to develop e.g. algorithms and protocols used for the security of computer systems themselves, but also to ensure the confidentiality and security of communication networks.

Aims and scope

Thus, the aim of this workshop is collecting and discussing new ideas and solutions that can be used to develop globally understood safe solutions connected with activities to strengthen national defense capability.

Target Audience

The event is aimed at both industry professionals and research/academic audience. Professionals will gain knowledge about basic concepts in Homeland defense, and become capable to manage defensive response capabilities. Researchers and academics will develop together with industry professionals the new solutions, technologies and security instruments that underpin international peace and security into the electronic age.

Topics

The workshop topics include (but are not limited to):

- Homeland Security and Information Processing.
- Investigative and Computer System Related Forensic Techniques, Trends and Methods.
- Network Forensics, Wireless and Mobile Forensics.
- Cyber-Defense Threat Analysis.
- Emergency Management, Including Prevention, Planning, Response, and Recovery.
- Secure Communications, Cyber-Attack Countermeasures.
- Vulnerability Analysis and Countermeasures.
- Anomaly Detection.
- Information Sharing and Secrecy.
- Cryptographic Models for Homeland Defense.
- Personal Security and Biometric.
- Intelligent Robots and Unmanned Vehicles.
- Target and Pattern Recognition.
- Sensor and Data Analysis.
- Semantic Image and Data Processing.
- Information Fusion.
- Emerging Threats in Intelligent Energy Systems.
- Advanced Vision Algorithms.
- Security and Privacy in Ambient Intelligence.
- Context and Location-aware Computing.
- Embedded Systems in Security.
- Knowledge-based Systems for Internet Security.
- Security Issues and Protocols for Internet Services.
- Privacy and Trust for Internet Services.
- Artificial Intelligence and Computational Intelligence.
- Cognitive Informatics.
- Security and Privacy in Power-Grid Systems.
- Cognitive Models of the Brain.
- Mathematical Foundations of Computing and Cryptography.
- Biologically Inspired Information Systems and Secret Data Management.
- Cognitive Image and Scene Understanding.
- Intelligent Health Technologies.

Important Dates

- Submission Deadline: April 15th, 2013
- Author Notification: May 20th, 2013

- Author Registration: June 1st, 2013
- Proceedings Version: June 11th, 2013
- Conference: September 2nd – 6th, 2013

Organization

- *General Co Chairs*:
  Ilsun You (Korean Bible University, Republic of Korea)
  Prof. Fang-Yie Leu (Tunghai University, Taiwan)

- *General Vice Co-Chairs*:
  Francesco Palmieri (Second University of Naples, Italy)
  Ugo Fiore (University of Naples "Federico II", Italy)

- *Program Co Chairs*:
  Aniello Castiglione (University of Salerno, Italy)
  Marek Ogiela (AGH University of Science and Technology, Poland)

- *Technical Program Committee*:
  Giovanni Acampora (TU/e, Eindhoven University of Technology, The Netherlands)
  Christina Alcaraz (University Malaga, Spain)
  Joonsang Baek (Khalifa University of Science, Technology & Research, United Arab Emirates)
  Francesca Bosco (United Nations Interregional Crime and Justice Research Institute, Italy)
  Antonio Colella (Italian Army, Italy)
  Gabriele Costa (University of Genoa, Italy)
  Christian Czosseck (Estonian Business School, Estonia)
  Bonaventura D'Alessio (Carabinieri Specialist Mobile Unit Command, Italy)
  Massimo Ficco (Second University of Naples, Italy)
  Alessandro Gigante (European Space Agency, ESRIN Health, Safety and Security Officer, Italy)
  Tomasz Hachaj (Pedagogical University in Krakow, Poland)
  Shinsaku Kiyomoto (KDDI R&D Laboratories Inc., Japan)
  Leonardo Impagliazzo (Vice President, Engineering Signalling Busines Unit, AnsaldoSTS, Italy)
  Giovanni Motta (Google Inc., USA)
  Jordi Nin (Universitat Politècnica de Catalunya, Barcelona, Spain)
  Kyung-Hyune Rhee (Pukyong National University, Republic of Korea)
  Sergio Ricciardi (Universitat Politècnica de Catalunya, Barcelona, Spain)
  Alessandra Sala (Bell Labs, Ireland)
  Germán Santos-Boada (Universitat Politècnica de Catalunya, Barcelona, Spain)
  Athanasios V. Vasilakos (University of Western Macedonia, Greece)
  Shuichiro Yamamoto (Nagoya University, Japan)
  Toshihiro Yamauchi (Okayama University, Japan)
  Siu Ming Yiu (The University of Hong Kong, Hong Kong)
  Wei Yu (Towson University, USA)

Author Instruction

Authors are invited to submit original papers: they must not substantially duplicate work that any of the authors have published elsewhere or have submitted in parallel to any other conferences.

Submissions must be in English and conform to the "Springer LNCS Series" format. Please for templates (MS Word or Latex only) use the LNCS templates and style files available from:

http://www.springer.com/computer/lncs?SGWID=0-164-7-72376-0.

Submissions must not exceed more than 16 pages, including tables and figures, and must be in PDF only. Submission of a paper implies that should the paper be accepted, at least one of the authors will register and present the paper at the workshop.

Each paper needs to be submitted to the workshop via the EasyChair system:

https://www.easychair.org/conferences/?conf=secihd2013

When you will submit your paper at the system, please make sure of checking the group "Regular Session".

Proceedings Publication

Proceedings of the workshop will be published by Springer Lecture Notes in Computer Science (LNCS) with IFIP logo (indexed by EI, Scopus, DBLP).

The proceedings will be available at the workshop. At least one author of an accepted paper *MUST* register at the ARES 2013 site and present the paper at the workshop.