



4th IFIP International Workshop on Security and Cognitive Informatics for Homeland Defense (SeCIHD 2014)

September 8th-12th, 2014, University of Fribourg, Switzerland

in conjunction with [ARES 2014](#)

Overview

Security subjects are becoming hugely important in the light of the development and deployment of new Homeland Defense solutions. Such solutions require the design of new computer systems and techniques allowing security procedures to be executed on many different planes, from system, communication and organization security to the security of the state and ensuring its defense capabilities. Advanced IT technologies based on intelligent algorithms that can analyze group behavior and interpret complex patterns or situations are increasingly frequently becoming the 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. They can also be employed to develop globally understood safe solutions connected with activities to strengthen national defense capability.

Aims and scope

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

- 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 30th, 2014
- Author Notification: June 13th, 2014
- Author Registration: June 13th, 2014
- Proceedings Version: June 27th, 2014

Venue and Date

University of Fribourg, Switzerland
September 8th – 12th, 2014

Organization

- *General Chairs*

Ilsun You (Korean Bible University, Republic of Korea)

Fang-Yie Leu (Tunghai University, Taiwan)

– *General Vice-Chairs*

Marek Ogiela (AGH University of Science and Technology, Poland)
Aniello Castiglione (University of Salerno, Italy)

– *Program Co-Chairs*

Francesco Palmieri (Second University of Naples, Italy)
Ugo Fiore (University of Naples "Federico II", Italy)

– *Program Committee*

Benjamin Aziz (University of Portsmouth, UK)
Joonsang Baek (Khalifa University of Science, Technology & Research, UAE)
Wolfgang Boehmer (Technische Universität Darmstadt, Germany)
Clara Maria Colombini (University of Milan UNIMI, Italy)
Massimo Ficco (Second University of Naples, Italy)
Dominique Genoud (University of Applied Sciences Western Switzerland, Switzerland)
Tomasz Hachaj (Pedagogical University in Krakow, Poland)
Jean Hennebert (University of Applied Science - HES-SO, Switzerland)
Antonio J. Jara (University of Applied Sciences Western Switzerland, Switzerland)
Shinsaku Kiyomoto (KDDI R&D Laboratories Inc., Japan)
Mauro Migliardi (University of Padova, Italy)
Lidia Ogiela (AGH University of Science and Technology)
Kyung-Hyune Rhee (Pukyong National University, Republic of Korea)
Sergio Ricciardi (Universitat Politècnica de Catalunya, Barcelona, Spain)
Shuichiro Yamamoto (Nagoya University, Japan)
Akihiro Yamamura (Akita University, Japan)
Toshihiro Yamauchi (Okayama University, Japan)
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 that have proceedings.

Submissions must be in English and conform to the "Springer LNCS Series" format.

Please use the LNCS templates and style files available from

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

for templates (MS Word or Latex only).

The proceedings of the workshop will be published by Springer LNCS.



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 ConfDriver:

<https://confdriver.ifs.tuwien.ac.at/ares2014/>

When you will submit your paper at the system, please make sure of selecting the workshop "**SeCIHD 2014**".

Proceedings & Special Issues

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 2014 site and present the paper at the workshop.