

SPECIAL SESSION: Artificial Intelligence and Grid Computing for Security Applications

Under the frame of:

The International Conference on Information Assurance and Security (IAS) IAS 2010

IAS 2010 will be organized in the Georgia Tech Global Learning Center, Atlanta, USA.

Web site: <http://www.gatechcenter.com/>

Venue: [Georgia Tech Global Learning Center, Atlanta](#)

SESSION CHAIRS:

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SCOPE OF THE SESSION:

Nowadays, many problems become increasingly large and complex, forcing the use of distribute and/or grid computing for their efficient and effective resolution. The design and implementation of parallel and/or Grid-based AI methods rise several issues related at the same time to the characteristics of them and those of the hardware execution support. This special session seeks to provide a forum for the researchers to present their original contributions on the joint use of Artificial Intelligent methods and Grid computing, and the related issues for Security Applications.

This session will explore and discuss the development of relevant topics that are of high importance in Artificial Intelligence and Grid Computing applied to the field of Security:

Artificial Intelligence

- Artificial Neural Networks
- Artificial Immune Systems
- Biological Computing
- Evolutionary Computation
- Intelligent Agents and Systems
- Machine Learning
- Support Vector Machine
- Reinforcement Learning
- Fuzzy Systems
- Swarm Intelligence
- Unsupervised Learning
- Case-Based Reasoning

Distribute and Grid Computing

- Data distribution and program mapping
- Load balancing
- Congestion control
- Scalability and performance
- High availability
- Routing algorithms
- Convergence
- Security
- Constraint based routing
- Policy based routing
- Multicast
- Grid, HPC and Cloud architectures
- System infrastructure
- Parallel algorithms, parallel and large scale applications
- Comparison of algorithms
- Code optimization
- Modelling
- User interfaces
- Visualization of large data sets
- Data mining
- Interactive access
- Workflow orchestration

Applications in Security

- Bioinformatics and Medical Diagnosis
- Data Mining
- Network Security
- Pattern Recognition
- Copyright Protection
- authentication techniques, Encryption,
- Authentication,
- Authorization,
- Digital Signatures
- Financial engineering
- Internet Firewalls
- Internet privacy,
- Cyber security standards...
- Intelligent Information Retrieval
- Financial Engineering
- Cryptography and Its Applications
- Data Privacy
- Communication Channels
- Electronic Commerce Security
- Image and Signal Processing
- Web and Network Application
- Other Applications