Special Session
on
Machine Learning in Information and System Security Issues
of
The Eleventh International Conference on Machine Learning and Applications (ICMLA 12)

http://www.icmla-conference.org/icmla12/

December 12-15, 2012, Boca Raton, Florida, USA

Recent developments in information and communication technologies require secure accessing, processing, storing, and sharing information in electronic environments. The importance of information and system security increases all the time in diversity as well as in quantity because of continuous threats encountered in many new forms on internet and systems. In order to secure information and systems, new approaches, methods, techniques, technologies and concepts are always required.
Advances in Machine Learning (ML) provide new challenges and solutions to the security problems encountered in applications, technologies and teories. Machine Learning (ML) techniques have found widespread applications and implementations in security issues. Many ML techniques, approaches, algorithms, methods and tools are extensively used by security experts and reserachers to achieve better results and to design robust systems.

The aim of this special session on Information and System Security Issues is to:

- share the current and new research topics.
- bring researchers and experts together to discuss and share their experiences,
- enhance personal, enterprise, national and international awareness,
- increase the collaboration among university – industry - institutions,

in applications of ML methods to the information and system security fields.

This session aims to provide a platform to present and discuss recent advancements in security applications using ML methods.

Papers are sought on a range of topics that include Security Applications and Implementations using ML methods but are not limited to

- Information Security
- Cryptography and Cryptoanalysis
- Steganography and Steganalysis
- Security Risk Analysis, Modelling, Evaluation and Management
- Software Security
- Secure Coding, Source Code Auditing and Review

- Critical Information and Infrastructure Security
- Security Standards, Protocols and Policies
- Trust Models
- Key and Identity Management
- Smart Card, RFID, NFC, 3G, 4G, etc. Security
- Operating System Security
- Clouds and Virtual Machine Security
- Biometrics
- Mobile Communication and Application Security
- Data Privacy, Privacy Theory and Engineering
- e-Governance and e-Government Security
- E-Sign and Public Key Infrastructure
- Digital Forensics, Procedures, Tools, Techniques, Surveillance Technology
- Securing Networks, Computers, Services, Systems, Databases.
- Securing Mobile Networks and Devices
- Wireless, Ad Hoc and Sensor Network Security
- Web and Web Application Security
- Etichal Hacking
- Information Security Audits
- Securing Digital Rights and Management
- Security Weaknesses on Information and Communication
- Penetration Tests, Tools and Techniques
- Social Engineering Attacks and Prevention
- Intrusion Detection and Prevention Systems
- Content Protection
- Malicious Software Threats and Protection
- Artificial Intelligence Techniques for Information Security System
- Public Awareness and Education for Information Security System
- Recent Theory, Trends, Technologies and Applications
- Future Directions and Challenges in Information Security System

In addition, a selected number of accepted papers will be invited for possible inclusion, in an expanded and revised form, in special issue of *International Journal of Information Security Science,* IJISS (www.ijiss.org)

Papers submitted for this special session should be submitted by 6 August 2012, at the regular paper submission website (http://www.icmla-conference.org/icmla12/). Papers should not exceed a maximum of **6 pages** (including abstract, body, tables, figures, and references), and should be submitted as a pdf in 2-column IEEE format. Detailed instructions for the authors can be found at the conference website. Accepted papers will be published in the conference proceedings, as a hardcopy. All accepted papers must be presented by one of the authors to be published in the conference proceedings.

If you have any question please do not hesitate to direct your questions to the special session organizer Dr. Seref Sagiroglu (ss at gazi.edu.tr).

Special Session Organizer:
Dr. Seref SAGIROGLU, Gazi University, Turkey.

Special Session Co-Organizers:

Dr. Qinghan XIAO, Defence Research and Development Canada, Canada

Dr. Sedat AKLEYLEK, Ondokuz Mayıs University, Turkey

The important dates for this special session are:

Special Session	: August 6, 2012
Paper Notification	: September 7, 2012
Camera-ready papers & Pre-registration	: October 1, 2012
The ICMLA Conference	: December 12-15, 2012