Artificial Intelligence techniques to Threat Detection and Data Protection in Cybersecurity

Scope and Topics:

In recent years, the hybrid intelligent has emerged as an essential tool in cybersecurity to prevent attacks. A critical security issue in the network is increasing large number of users as well as attackers. However, some research carried out to improve the prediction of attacks, and they often fail to detect attacks. This is very difficult to differentiate the relationship between legitimate and phishing site. This evidence raises the need of applying Artificial Intelligence(AI) to make the decision wisely. The main objectives of this special session are to present the latest research and developing activities related to the different aspects of cybersecurity, threat detections methods including intelligent monitoring, data and privacy protection, audio-visual data processing, machine learning methods and their applications. One of the aims of the special session is to present the results of research carried out as part of international research projects in the field of cybersecurity and multimedia.

This special session will focus on latest research results and exchange views on the future research directions. It invites original contributions on, but not limited to, the themes and topics in the following areas of research:

- Information security in fuzzy systems
- Rule-based systems and neural networks
- Machine learning in web analytics
- Cryptography techniques and protocols including spread-spectrum cryptography
- Data and privacy protection
- Inter-sector technology challenges and opportunities in cybersecurity
- The human factor in cybersecurity
- Development of cybersecurity education and cybersecurity certification schemes.
- Cybersecurity competence centres and technology roadmaps
- Security in SCADA systems and smart grids
- Secure Internet of Things technologies
- Cybercrime-threats and counteracting
- Ethical issues and law aspects in video surveillance, internet monitoring and security research
- Evaluation of security features in end-user applications
- Intelligent monitoring, threat detection, recognition of objects and events
- Interactive multimedia and biometric applications
- Security solutions for industrial applications
- Cyber-attacks and computer security

Special session organizers:

Professor Dumitru Baleanu,
Department of Mathematics, Cankaya University, Ankara, Turkey &
Institute of Space Sciences, Bucharest, Romania
Email: dumitru@cankaya.edu.tr

Associate Professor Dr. Soheil Salahshour,
Faculty of Engineering and Natural Sciences, Bahcesehir University, Istanbul, Turkey
Email: soheil.salahshour@eng.bau.edu.tr

Dr. Ali Ahmadian,
Institute of IR 4.0, The National University of Malaysia/ Mediterranea University of Reggio Calabria, Italy
Emails: ali.ahmadian@ukm.edu.my/ahmadian.hosseini@unirc.it