



INVITED SESSION SUMMARY (KES 2019)

Title of Session: Intelligent Cybersecurity Systems

Name, Title and Affiliation of Chair: Dr. Leslie F. Sikos, University of South Australia

Details of Session (including aim and scope):

The proliferation of online services and ubiquitous web applications exposed to constant cyberthreats makes proactive, rather than reactive, countermeasures more important than ever. AI-based security infrastructures are emerging to help fight cybercrime and prevent data loss, privacy breach, and ransomware spread. This session covers innovative research results and novel approaches for AI-powered intelligent security systems, which employ deep learning, formal knowledge representation, and automated reasoning for knowledge integration, information fusion, and visualization.

Submissions are expected from, but are not limited to, the following topics:

- Intelligent IoT device security
- Machine learning used for privacy protection
- AI implementations in antivirus software and firewalls
- AI-powered cloud security and advanced threat protection
- Deep learning in threat intelligence
- Securing driveless cars and UAVs with AI
- Novel algorithms in cybersecurity based on machine learning
- Strategies for handling security threats posed by AI-powered cyberattacks

Main Contributing Researchers / Research Centres (tentative, if known at this stage):

Leslie F. Sikos, Advanced Computing Research Centre, University of South Australia, Australia

Dean Philp, Defence Science & Technology Group, Australia

Website URL of Call for Papers (if any): TBD

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