

### Title:

Machine Learning & Multimedia Security

#### **Abstract:**

Machine Learning techniques have been attracted increasing attention around the world and are now being widely used to solve a whole range of hitherto intractable problems. Multimedia signal processing are omnipresent in our daily lives, however, a lot of relevant security issues have emerged as well, such as copy-move forgery in multimedia, unauthorized access, malicious attacks and impersonating/stealing identities greatly threat the security and privacy in multimedia. To address these issues, many multimedia information security techniques were proposed utilizing the methods in areas like deep learning, signal and image processing in encrypted domain, and privacy protection. This workshop will focus on the latest research on the topics of machine learning and multimedia security, with a particular emphasis on novel and high-quality research contributions that demonstrate and explore current advances in all aspects of machine learning, multimedia security and related applications.

### **Scope and Topics:**

This workshop encourages submissions on both theoretical technologies and practical applications. Topics of interests include but are not limited to the following aspects:

- ♦ Machine learning on encrypted data
- ♦ Machine learning for image recognition and classification
- ♦ Intelligent Control
- ♦ Machine learning for secure medical image sharing
- ♦ Multimedia fingerprinting and traitor tracing
- ♦ Multimedia watermarking and identification
- ♦ Multimedia forensic and encryption
- ♦ Multimedia privacy-preserving machine learning
- ♦ Deep learning applied to natural language processing
- Steganography and Steganalysis
- ♦ Signal processing in the encrypted domain
- ♦ Deep learning applied to multimedia security
- ♦ Machine learning for biometric authentication

# **Program Committee Chairs:**

**Jiaohua Qin**, Central South University of Forestry & Technology, China Email:qinjiaohua@163.com

 $http://jsj.csuft.edu.cn/szdw\_1327/jsfc/201505/t20150511\_33336.html$ 

Jiaohua Qin received her BS in mathematics from Hunan University of Science and Technology, China, in 1996, MS in computer science and technology from National



University of Defense Technology, China, in 2001, and PhD in computing science from Hunan University, China, in 2009. She is a professor at College of Computer Science and Information Technology, Central South University of Forestry and Technology, China. Her research interests include digital forensics, encrypted image processing and machine learning.

#### Rengarajan Amirtharajan, SASTRA University, India

Email:amir@ece.sastra.edu

#### https://www.researchgate.net/profile/Dr R Amirtharajan2/3

Dr. R. Amirtharajan received his B.E. degree in ECE from P.S.G. College of Technology, Bharathiyar University, Coimbatore, India in 1997, M.Tech & Ph.D. in Computer Science Engineering from SASTRA University Thanjavur, India in 2007, 2012 respectively. He joined SASTRA University, Thanjavur, Tamil Nadu, India as a Lecturer in the Department of ECE since 1997 and is now Associate Professor. His research interests include image steganography, image encryption and cloud computing.

**Xuyu Xiang,** Central South University of Forestry & Technology, China Email:xyuxiang@163.com

http://jsj.csuft.edu.cn/szdw\_1327/jsfc/201710/t20171011\_66527.html Xuyu Xiang received his BS in mathematics from Hunan Normal University, China, in 1996, MS degree in computer science and technology from National University of Defense Technology, China, in 2003, and PhD in computing science from Hunan University, China, in 2010. He is a professor at Central South University of Forestry and Technology, China. His research interests include image processing, big data and machine learning.

# **Program Committee:**

Lili Pan, Central South University of Forestry & Technology, China Yun Tan, Central South University of Forestry & Technology, China Ling Tan, The Second Xiangya Hospital of Central South University, China Thanikaiselvan V, Vellore Institute of Technology, India Padmapriya Praveenkumar, SASTRA University, India DHIVYA. R, SASTRA University, India