



**Eighteenth Annual IFIP WG 11.9 International Conference on Digital Forensics**  
**Fully Virtual (All Times U.S. Eastern Standard Time: UTC-5)**  
**January 3-4, 2022**

**January 3, 2022 (Monday)**

**12:00pm - 12:10pm: Welcoming Remarks and Logistics**

**12:10pm - 01:10pm: Keynote Lecture**

*Searching for Digital Evidence in SCADA Systems*

Irfan Ahmed, Associate Professor of Computer Science, Virginia Commonwealth University, Richmond, Virginia, USA

**01:10pm - 02:10pm: Session 1**

Chair: Gilbert Peterson, Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, USA

*Identifying Leak Sources of Hardcopy Documents*

Pulkit Garg, Saheb Chhabra and Gaurav Gupta

Indian Institute of Technology Jodhpur, Jodhpur, India

Indraprastha Institute of Information Technology Delhi, New Delhi, India

Ministry of Electronics and Information Technology, New Delhi, India

*Realistic and Configurable Synthesis of Malware Traces in Windows Systems*

Martin Lukner, Thomas Göbel and Harald Baier

Bundeswehr University Munich, Munich, Germany

**02:10pm - 02:30pm: Break**

**02:30pm - 03:30pm: Session 2**

Chair: Thomas Göbel, Bundeswehr University Munich, Munich, Germany

*Implementation of a Digital Body Farm for the Collection of Deleted File Decay Data*

Omoche Cheche Agada, Ibifubara Iganibo, James Jones and Kevin Fairbanks

George Mason University, Fairfax, Virginia, USA

*Community Detection in Web Discussion Forums During Social Unrest Events*

Ao Shen and Kam-Pui Chow

University of Hong Kong, Hong Kong, China

**03:30pm - 03:50pm: Break**

**03:50pm - 04:50pm: Session 3**

Chair: Kam-Pui Chow, University of Hong Kong, Hong Kong, China

*Deepfake Detection Using Multiple Feature Fusion*

Ya Zhang, Xin Jin, Qian Jiang, Yunyun Dong, Nan Wu, Shaowen Yao and Wei Zhou

Yunnan University, Kunming, China

*A Combined Feature Encoding Network with Semantic Enhancement for Image Tampering Forensics*

Yuling Luo, Ce Liang, Shunsheng Zhang and Sheng Qin

Guangxi Normal University, Guilin, China

## **January 4, 2022 (Tuesday)**

### **12:00pm - 01:00pm: Keynote Lecture**

*New Challenges to Digital Forensics in the Coming Years*

Gaurav Gupta, Scientist, Ministry of Electronics and Information Technology, New Delhi, India

### **01:00pm - 02:00pm: Session 4**

Chair: Gaurav Gupta, Ministry of Electronics and Information Technology, New Delhi, India

*Identifying Timestamps in Carved Digital Video Recorder Footage*

Divam Lehri and Anyesh Roy

National Cyber Forensic Laboratory, New Delhi, India

*Actual Data Distribution in Mobile Devices and the Need to Obtain Realistic Mobile Forensic Corpora*

Patrik Gonçalves, Andreas Attenberger and Harald Baier

Central Office for Information Technology in the Security Sector, Munich, Germany

Bundeswehr University Munich, Munich, Germany

### **02:00pm - 02:20pm: Break**

### **02:20pm - 03:20pm: Session 5**

Chair: Mason Rice, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA

*Forensic Analysis of Snapchat App Containing Spectacles-Synced Artifacts*

Logan VanPutte, Gokila Dorai, Andrew Clark, Rayna Mock and Josh Brunty

Augusta University, Augusta, Georgia, USA

Marshall University, Huntington, West Virginia, USA

*Analyzing the Error Rate of Bitcoin Tracing Heuristics*

Yanan Gong, Kam-Pui Chow, Hing-Fung Ting and Siu-Ming Yiu

University of Hong Kong, Hong Kong, China

### **03:20pm - 03:40pm: Break**

### **03:40pm - 04:40pm: Session 6**

Chair: Sujeet Sheno, University of Tulsa, Tulsa, Oklahoma, USA

*Generating Adversarial Android Malware Samples*

Weiqing Huang, Fangtao Zhang, Song Li and Gengwang Li

Chinese Academy of Sciences, Beijing, China

*Spoofed Fingerprint Detection Using Local Phase Patch Segment Extraction and a Custom*

*Lightweight Convolutional Neural Network Architecture*

Sani Abdullahi, Shuifa Sun, Asad Malik, Obatek Khudeybardiiev and Riskhan Basheer

China Three Gorges University, Yichang, China

Aligarh Muslim University, Aligarh, India

Southwest Jiaotong University, Chengdu, China