

Preliminary Program - WIFS 2018

| Dec 10 (Mon) | Dec 11 (Tues) | Dec 12 (Wed) | Dec 13 (Thurs) |
|---|---|--|--|
| | 08:30 - 09:30 <i>Registration</i> <i>ISBA 2014 Registration Desk</i> | 08:30 - 09:30 <i>Registration</i> <i>ISBA 2015 Registration Desk</i> | 08:30 - 09:30 <i>Registration</i> <i>ISBA 2015 Registration Desk</i> |
| 08:00- 09:00 WIFS 2018 <i>Registration</i> | 09:00-09:20 Opening Address, Welcome by Chairs <i>Conference Room</i> | 09:00-10:00 Keynote Talk Hostile Blockchain Takeovers <i>Conference Room</i> | 09:00-10:00 Panel Session, Key Research Problems in Information Forensics and Security for the next Five Years <i>Conference Room</i> |
| | 09:20-10:20 Keynote Talk <i>Biometric Identification of Human Individuals: Recent Advances and Future Directions</i> <i>Conference Room</i> | 09:00-10:00 Keynote Talk Hostile Blockchain Takeovers <i>Conference Room</i> | 10:00-10:10 TIFS Papers Poster Spotlights (5 Posters) <i>Conference Room</i> |
| 09:00-10:45 Morning Tutorial (Tutorial I and III) 10:45-11:00 <i>Coffee Break</i> 11:00 - 12:30 Morning Tutorial (Contd.) <i>Tutorials Room</i> <i>WIFS 2018 Conference Room (M1604)</i> | 10:20-10:50 <i>Coffee Break</i> <i>Conference Room Lobby</i> | 10:00-10:20 <i>Coffee Break</i> <i>Conference Room Lobby</i> | 10:10-10:40 TIFS Poster Session and <i>Coffee Break</i> (5 Posters) <i>Poster Session</i> <i>Conference Room</i> |
| | 10:50-11:50 Oral Session # 1 (3 Papers) <i>Conference Room</i> | 10:20-11:20 Oral Session # 6 (3 Papers) <i>Conference Room</i> | 10:40-11:40 Oral Session # 8 (3 Papers) <i>Conference Room</i> |
| | 11:50-12:30 Oral Session # 2 (2 Papers) <i>Conference Room</i> | 11:20-12:20 Oral Session # 7 (3 Papers) <i>Conference Room</i> | 11:40-12:40 Oral Session # 9 (3 Papers) <i>Conference Room</i> |
| 12:30-14:00 <i>Lunch</i> <i>PolyU Staff Restaurant</i> | 12:30-14:00 <i>Lunch</i> <i>PolyU Staff Restaurant</i> | 12:20-14:00 <i>Lunch</i> <i>PolyU Staff Restaurant</i> | 12:40-14:00 <i>Lunch</i> <i>PolyU Staff Restaurant</i> |
| 14:00-15:30 Afternoon Tutorial (Tutorial II and IV) 15:30-15:45 <i>Coffee Break</i> 15:45-17:00 Afternoon Tutorial (Contd.) <i>Tutorials Room</i> <i>WIFS 2018 Conference Room (M1604)</i> | 14:00-15:20 Oral Session # 3 (4 Papers) <i>Conference Room</i> | Transportation for Social Gathering | 14:00-15:20 Oral Session # 10 (4 Papers) <i>Conference Room</i> |
| | 15:20-15:40 <i>Coffee Break</i> <i>M1604 Corridor Poster Area</i> | (3:30-18:30) Social Gathering | 15:20-15:40 <i>Coffee Break</i> <i>M1604 Corridor Poster Area</i> |
| | 15:40-16:40 Oral Session # 4 <i>Conference Room</i> | 18:30-21:00 Awards and Banquet Dinner | 15:40-17:00 Oral Session # 11 <i>Conference Room</i> |
| | 16:40-17:40 Oral Session # 5 <i>Conference Room</i> | | 17:00-17:10, Closing Remarks |

Preliminary Technical Program, WIFS 2018 (11-13 December 2018)

11 December

| | |
|------------------|--|
| Oral Session # 1 | Audio and Video Forensics (10:50-11:50 AM) |
| | In Ictu Oculi: Exposing AI Created Fake Videos by Detecting Eye Blinking (10:50-11:10 AM) Yuezun Li (University at Albany, State University of New York, USA), Ming-Ching Chang (University at Albany, State University of New York, USA), Siwei Lyu (University at Albany, State University of New York, USA) |
| | MesoNet: a Compact Facial Video Forgery Detection Network (11:10-11:30 AM) Darius Afchar (École des Ponts Paristech, Marne-la-Vallée, France), Vincent Nozick (UPEM, France), Junichi Yamagishi (National Institute of Informatics, Tokyo, Japan), Isao Echizen (National Institute of Informatics, Tokyo, Japan) |
| | Transforming Acoustic Characteristics to Deceive Playback Spoofing Countermeasures of Speaker Verification Systems (11:30-11:50 AM) Fuming Fang (National Institute of Informatics, Japan), Junichi Yamagishi (National Institute of Informatics, Japan and University of Edinburgh, UK), Isao Echizen (National Institute of Informatics, Japan), Md Sahidullah (Inria, France), Tomi Kinnunen (University of Eastern Finland, Finland) |
| | |
| Oral Session # 2 | Digital Camera Forensics (11:50 AM-12:30 PM) |
| | An Inception-Based Data-Driven Ensemble Approach to Camera Model Identification (11:50 AM-12:10 PM) Anselmo Ferreira (Shenzhen University, Shenzhen, China), Han Chen (Shenzhen University, Shenzhen, China), Bin Li (Shenzhen University, Shenzhen, China), Jiwu Huang (Shenzhen University, Shenzhen, China) |
| | Countering the Pooled Triangle Test for PRNU-based camera identification (12:10-12:30 PM) Mauro Barni (University of Siena, Siena, Italy), Mariko Nakano-Miyatake (National Polytechnic Institute of Mexico, Mexico), Héctor Santoyo-García (National Polytechnic Institute of Mexico, Mexico), Benedetta Tondi (University of Siena, Siena, Italy) |
| Oral Session # 3 | Data Hiding in Encryption Domain (2:00-3:20 PM) |
| | EPE-based Huge-Capacity Reversible Data Hiding in Encrypted Images (2:00-2:20 PM) Pauline Puteaux (LIRMM – CNRS, Univ. Montpellier, Montpellier, France), William Puech (LIRMM – CNRS, Univ. Montpellier, Montpellier, France) |
| | Reversible Data Hiding in Encrypted Images with Two-MSB Prediction (2:20-2:40 PM) Yi Puyang (Anhui University, Hefei, China and Shanghai University, Shanghai, China), Zhaoxia Yin (Anhui University, Hefei, China and Purdue University, Indiana, USA), Zhenxin Qian (Shanghai University, Shanghai, China) |
| | Reversible Contrast Mapping based Reversible Data Hiding in Encrypted Images (2:40-3:00 PM) Yingqiang Qiu (Huaqiao University, Fujian, China), Hangxing Wang (Huaqiao University, Fujian, China), Zichi Wang (Shanghai University, Shanghai, China), Zhenxing Qian (Shanghai University, Shanghai, China), Gui Feng (Huaqiao University, Fujian, China), Xinpeng Zhang (Shanghai University, Shanghai, China) |
| | Camera Attribution Forensic Analyzer in the Encrypted Domain (3:00-3:20 PM) Alberto Pedrouzo-Ulloa (University of Vigo, Vigo, Spain), Miguel Masciopinto (University of Vigo, Vigo, Spain), Juan Ramón Troncoso-Pastoriza (Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland), Fernando Pérez-González (University of Vigo, Vigo, Spain) |
| | |
| Oral Session # 4 | Watermarking and Data Hiding (3:40-4:40 PM) |
| | Are Deep Neural Networks good for blind image watermarking? (3:40-4:00 PM) Vedran Vukotić (Lamark, France), Vivien Chappelier (Lamark, France), Teddy Furon (Univ Rennes, Inria, CNRS, IRISA, France) |
| | A Multi-Task Learning CNN for Image Steganalysis (4:00-4:20 PM) Xiangyu Yu (South China University of Technology, China), Huabin Tan (South China University of Technology, China), Hui Liang (South China University of Technology, China), Chang-Tsun Li (Charles Sturt University, Australia), Guangjun Liao (Guangdong Police College, China) |
| | Adaptive Steganography in the Noisy Channel with Dual-Syndrome Trellis Codes (4:20-4:40 PM) Christy Kin-Cleaves (Oxford University, Oxford, UK), Andrew D. Ker (Oxford University, Oxford, UK) |
| | Data Protection and Access Control (4:40-5:40 PM) |

| | | |
|--|------------------|---|
| | Oral Session # 5 | Emotional Bots: Content-based Spammer Detection on Social Media (4:40-5:00 PM) |
| | | <i>Panagiotis Andriotis (University of the West of England, Bristol, U.K.), Atsuhiko Takasu (National Institute of Informatics, Tokyo, Japan)</i> |
| | | Protect Your Deep Neural Networks from Piracy (5:00-5:20 PM) |
| | | <i>Mingliang Chen (University of Maryland, USA), Min Wu (University of Maryland, USA)</i> |
| | | A Randomized Kernel-Based Secret Image Sharing Scheme (5:20-5:40 PM) |
| | | <i>Akella Ravi Tej (IIT Roorkee, India), Rekula Raviteja (IIT Roorkee, India), Vinod Pankajakshan (IIT Roorkee, India)</i> |

| | | |
|-------------|------------------|---|
| 12 December | Oral Session # 6 | Privacy Protection and Enhancement (10:20-11:20 AM) |
| | | Latent Feature Disclosure under Perfect Sample Privacy (10:20-10:40 AM) |
| | | <i>Borzoo Rassouli (University of Essex, UK), Fernando Rosas (Imperial College London, UK), Deniz Gündüz (Imperial College London, UK)</i> |
| | | Privacy-Preserving Distributed Deep Learning with Privacy Transformations (10:40-11:00 AM) |
| | | <i>Sen-ching S. Cheung (University of Kentucky, Lexington, KY, USA), Muhammad Usman Rafique (University of Kentucky, Lexington, KY, USA), Wai-tian Tan (Cisco Systems Inc., Jose, CA, USA)</i> |
| | | A Novel Approach For Data Packing: Using Trapdoor Knapsack (11:00-11:20 AM) |
| | | <i>Majid Nateghizad (Delft University of Technology, Netherland), Zekeriya Erkin (Delft University of Technology, Netherland), Reginald L. Legendijk (Delft University of Technology, Netherland)</i> |

| | | |
|-------------|------------------|--|
| 12 December | Oral Session # 7 | Fingerprint-based Security and Protection (11:20 AM-12:20 PM) |
| | | One-factor Cancellable Scheme for Fingerprint Template Protection: Extended Feature Vector (EFV) Hashing (11:20-11:40 AM) |
| | | <i>Ming Jie Lee (Monash University Malaysia, Malaysia), Zhe Jin (Monash University Malaysia, Malaysia), Andrew Beng Jin Teoh (Yonsei University, South Korea)</i> |
| | | Database Binning and Retrieval in Multi-Fingerprint Identification Systems (11:40 AM-12:00 Noon) |
| | | <i>P. Drozdowski (Biometrics and Internet Security Research Group, Hochschule Darmstadt, Germany and NTNU, Norway), D. Fischer (Biometrics and Internet Security Research Group, Hochschule Darmstadt, Germany), C. Rathgeb (Biometrics and Internet Security Research Group, Hochschule Darmstadt, Germany), C. Schielz (Bundeskriminalamt (BKA) Wiesbaden, Germany), and C. Busch (Biometrics and Internet Security Research Group, Hochschule Darmstadt, Germany)</i> |
| | | Fingerprint Presentation Attack Detection Using A Novel Multi-Spectral Capture Device and Patch-Based Convolutional Neural Networks (12:00 Noon-12:20 PM) |
| | | <i>Mohamed E. Hussein (Information Sciences Institute, CA, USA and Alexandria University, Alexandria, Egypt), Leonidas Spinoulas (Information Sciences Institute, USC, USA), Fei Xiong (Information Sciences Institute), Wael Abd-Almageed (Information Sciences Institute, USC, USA)</i> |

| | | |
|-------------|------------------|--|
| 12 December | Oral Session # 8 | Compression and Authentication (10:40 -11:40 AM) |
| | | JPEG Implementation Forensics Based on Eigen-Algorithms (10:40 -11:00 AM) |
| | | <i>Nicoló Bonettini (Politecnico di Milano, Italy), Luca Bondi (Politecnico di Milano, Italy), Paolo Bestagini (Politecnico di Milano, Italy), Stefano Tubaro (Politecnico di Milano, Italy)</i> |
| | | Exposing Image Resizing utilizing Welch Power Spectral Density Analysis for Double Compressed JPEG Images (11:00 -11:20 AM) |
| | | <i>Sidhant Sahu (NIT Rourkela, India), Manish Okade (NIT Rourkela, India)</i> |
| | | Enhanced Geometric Reflection Models for Paper Surface Based Authentication (11:20 -11:40 AM) |
| | | <i>Runze Liu (North Carolina State University, USA), Chau-Wai Wong (North Carolina State University, USA), Min Wu (University of Maryland, College Park, USA)</i> |

| | | |
|-------------|------------------|--|
| 12 December | Oral Session # 9 | Pattern Analysis and Forensics (11:40 AM -12:40 PM) |
| | | Revealing the processing history of pitch-shifted voice using CNNs (11:40 AM -12:00 Noon) |
| | | <i>Lihua Wang (Sun Yat-sen University, Guangzhou, China), Huixin Liang (Sun Yat-sen University, Guangzhou, China), Xiaodan Lin (Sun Yat-sen University, Guangzhou, China), Xiangui Kang (Sun Yat-sen University, Guangzhou, China)</i> |
| | | Error Analysis of Forensic ENF Matching (12:00 Noon -12:20 PM) |
| | | <i>Guang Hua (Wuhan University, China)</i> |
| | | Exploitation of Redundancy for Pattern Estimation of Copy-Sensitive Two Level QR Code (12:20 AM -12:40 PM) |

13 December

Iuliia Tkachenko (University Lyon, UJM-Saint-Etienne, France), Christophe Destruel (IGO, France)

Oral Session # 10

Physical Layer Security (2:00 -3:20 PM)

The Deterministic and Correlated Random Public-Confidential Capacity Regions of the Arbitrarily Varying Wiretap Channel (2:00 -2:20 PM)

Ahmed S. Mansour (Technische Universität München, Germany), Rafael F. Schaefer (Technische Universität Berlin, Germany), Holger Boche (Technische Universität München, Germany)

Adaptive Channel Estimation in Side Channel Attacks (2:20 -2:40 PM)

Shan Jin (Texas A & M University, USA), Riccardo Bettati (Texas A & M University, USA)

Performance Evaluation of Secure Communication Systems on Turing Machines (2:40 -3:00 PM)

Holger Boche (Technische Universität München, Germany), Rafael F. Schaefer (Technische Universität Berlin, Germany), H. Vincent Poor (Princeton University, New Jersey, USA)

Community-based anomaly detection (3:00 -3:20 PM)

Martin Kopp (Cisco Systems, Inc. and Czech Technical University, Prague, Czech Republic), Martin Grill (Cisco Systems, Inc.), Jan Kohout (Cisco Systems, Inc. and Czech Technical University, Prague, Czech Republic)

Oral Session # 11

Biometrics Identification (3:40 -5:00 PM)

Gender Effect on Face Recognition for a Large Longitudinal Database (3:40 -4:00 PM)

Caroline Werther (University of North Carolina Wilmington, North Carolina, USA), Morgan Ferguson (Elon University, North Carolina, USA), Kevin Park (Emory University, Atlanta, USA), Troy Kling (University of North Carolina Wilmington, North Carolina, USA), Cuixian Chen (University of North Carolina Wilmington, North Carolina, USA), Yishi Wang (University of North Carolina Wilmington, North Carolina, USA)

Finger-vein Recognition using Deep Fully Convolutional Neural Semantic Segmentation Networks: The Impact of Training Data (4:00 -4:20 PM)

Ehsaneddin Jalilian (University of Salzburg, Austria), Andreas Uhl (University of Salzburg, Austria)

Age Estimation via Fusion of Depthwise Separable Convolutional Neural Networks (4:20 -4:40 PM)

Kuan-Hsien Liu (National Taichung University of Science and Technology, Taiwan), Hsin-Hua Liu (National Taiwan University, Taiwan), Pak Ki Chan (National Chung Hsing University, Taiwan), Tsung-Jung Liu (National Chung Hsing University, Taiwan), Soo-Chang Pei (National Taiwan University, Taiwan)

Generalized Joint Sparse Representation for Multimodal Biometric Fusion of Heterogeneous Features (4:40 -5:00 PM)

Rudi Primorac (The University of Western Australia, Australia), Roberto Togneri (The University of Western Australia, Australia), Mohammed Bennamoun (The University of Western Australia, Australia), Ferdous Sohel (Murdoch University, Australia)