

## June 2016

Professor Chang-Tsun Li, Warwick, acted as Expert Witness in June 2016 to analyse a set of voyeuristic video sets for Guildford Crown Court (UK). By using his multimedia forensics expertise he proved the defendant guilty, which the defendant admitted and was given a 10 months' imprisonment sentence.

## June 2016

The annual Summer School for Advanced Studies on Biometrics for Secure Authentication took place 20-24 June in Alghero, Italy. In its 13th year, it closely follows the developments in science and technology to offer a cutting edge, intensive training course, always up to date with the current state-of-the-art.

## September 2016

Professor Chang-Tsun Li, from the University of Warwick, delivered a keynote speech on Multimedia Forensics: Source Inference from Uncertainty and Enormity. He also contributed as a panelist to the panel discussion chaired by Professor Yun-Qing Shi (NJIT) at IWDW 2016, Beijing, China, 19 Sept 2016.

## September 2016

Professor Massimo Tistarelli, Sassari, chaired a well received special session on Biometrics and Multimedia Forensics for BTAS 2016 at Niagara Falls, Buffalo, US from 6-9 September 2016. Two of the papers presented at the special session received the Best Paper Awards (out of 4 best papers from all sessions of the conference).

## September 2016

Prof. Andreas Uhl, from PLUS, was Program Chair of International Conference of the Biometrics Special Interest Group (BIOSIG 2016) 21-23 September. BIOSIG is an annual scientific biometrics meeting, main audience is from Europe, around 100 participants, held in Darmstadt, Germany.

## October 2016

Pep Lluís de la Rosa i Esteva, SCM, conducted a seminar at Warwick on 'The distributed ledger technology that started with bitcoin is rapidly becoming a crowd sourced system for all types of verification. Could it replace notary publics, manual vote recounts, and the way banks manage transactions? It will explore an application of block chain to help the IDENTITY project in general.'

## November 2016

Professor Chang-Tsun Li, from the University of Warwick, was invited to discuss his experience in developing a source-oriented image clustering method for integration into INTERPOL's International Child Sexual Exploitation Image Database (ICSE DB) at the 34th Meeting of the INTERPOL Specialists Group on Crimes against Children, Lyon, France, 14-18 November, 2016. The meeting was attended by more than 200 delegates from the law enforcement community around the world.

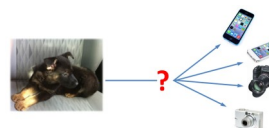
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## Computer Vision Enabled Multimedia Forensics and People Identification

### A new international project funded by EU Horizon 2020 - Marie Skłodowska-Curie Action

Forensics is a well-established science that aims at applying knowledge of various disciplines to law enforcement in order to solve questions related to crimes. It is mainly concerned with proving and investigating infringements, identifying perpetrators and describing modus operandi. *Biometrics*, on the other hand, is a relatively new science that aims at measuring and analysing a person's unique behavioural and physical characteristics. It is mainly concerned with the development of technological solutions to extract and evaluate a person's biometric data mainly for verification and identification purposes. The potential of applying biometrics to forensics comes naturally as several forensic questions rely on identifying people or verifying the identity of people. Although these two scientific communities have operated in relative isolation over the past couple of decades, *forensic biometrics* has been successfully applied through the development of automatic fingerprint identification systems (AFIS), and most



recently, through the development of face recognition systems. The potential of forensic biometrics, however, can be extended to other biometric traits, such as iris and gait analysis. This project, IDENTITY, is intended to cross-fertilise the forensic and biometric communities and to contribute to the development of forensic biometrics.



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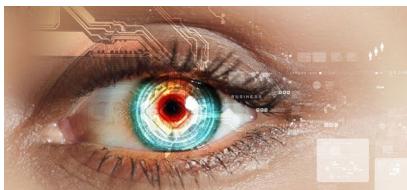




In addition to forensic biometrics, which often involves people identification, another major line of investigation in this project is *multimedia forensics*, which involves identification or inference of the source device of digital content. Multimedia forensics is concerned with extracting device fingerprints from multimedia (images, videos, and audio) produced by digital cameras, smart phones, camcorders, CCTV, scanners etc... for source device identification, forgery



detection and source-oriented content classification. Although the targets in multimedia forensics are different from those in physical forensics and biometrics, the three disciplines share the same set of enabling computer vision and multimedia processing technologies.



This provides a natural synergy for collaborations among the three communities and is the motivation of this proposed research.

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## The consortium

A global consortium is involved with IDENTITY, with researchers from all institutions active with secondments between them, sharing knowledge, research methodology and enhancing their personal profiles.

University of Warwick, UK (Coordinator)

University of Sassari, Italy

EURECOM, France

University of Salzburg, Austria

Social Currencies Management, Spain

XLAB d.o.o, Slovenia

Michigan State University, USA

Chinese Academy of Sciences, China

University of Campinas (Unicamp), Brazil

Hong Kong Baptist University

Nanyang Technological University, Singapore

South China University of Technology, Singapore

New Jersey Institute of Technology (NJIT), USA

Indraprastha Institute of Information Technology (IIIT Delhi), India



## Activites 2016

### January 2016

The kickoff meeting for the IDENTITY project was held at the University of Warwick on 30 January 2016 and included representatives from all of the international partners involved.

### June 2016

Professor Massimo Tistarelli of Sassari chaired a well attended Panel Session on Relation/Implications of Forensic Biometrics and Multimedia Forensics for ICB 2016 in Sweden. Four panelists Chang-Tsun Li (University of Warwick), James Loudermilk (FBI Science & Technology), Didier Meuwly (Netherlands Forensic Institute & University of Twente) and Massimo Tistarelli contributed their views in response to the audiences' questions and comments from various aspects of the panel theme.