**IEEE International Conference on**

**Image Processing (ICIP) 2017**

**17-20 September, Beijing, china**

**Special Session on**

**“JPEG Privacy and Security”**

# Organized by

Principal Organizer(s): 1. [Ambarish Natu](#_Ambarish_Natu_–) – Australian Government – ambarish.natu@gmail.com

2. [Peter Schelkens](#_Peter_Schelkens_–) – Vrije Universiteit Brussel – pschelke@etrovub.be

3. [Takaaki Ishikawa](#_Takaaki_Ishikawa_–) – Waseda University – takaxp@ieee.org

# Call for Papers

Theme: Privacy and Security in Multimedia

Privacy and security support for image data is becoming steadily more important seen the fact that image collections are increasingly more stored in distributed and cloud repositories rather than in private repositories. Moreover, social media and online photo repositories, for example, are currently offering insufficient means to secure privacy-sensitive information carried by the picture or to signal associated IPR metadata. Observing that on a daily basis billions of pictures are shared in JPEG legacy formats on these media, it is evident that embedding additional functionality that would safeguard this type of information and functionality would benefit a significant user base.

Hence, the JPEG Committee has launched a new activity called JPEG Privacy & Security. This activity aims at developing a standard for realizing secure image information sharing which is capable of ensuring privacy, maintaining data integrity, and protecting intellectual property rights. This activity is not only intended to protect private information carried by images - in the image itself or the associated metadata - but also to provide degrees of trust while sharing image content and metadata based on individual preferences. It is necessary to extend the existing coding standards by adding such preferences. JPEG Privacy & Security will explore ways on how to design and implement the necessary functionality without significantly impacting on coding performance while ensuring scalability, interoperability, and forward and backward compatibility with current JPEG standard frameworks.

Since the JPEG committee intends to interact closely with actors in this domain, the first workshop was organized on October 13, 2015 during the JPEG meeting in Brussels, Belgium, and the second workshop was organized on February 23, 2016 during the JPEG meeting in La Jolla, CA, USA. Following the great success of these workshops, the third workshop was organized on October 18, 2016 during the JPEG meeting in Chengdu, China. These workshops targeted on understanding industry, user, and policy needs in terms of technology and supported functionalities. Topics of interest include, but are not limited to:

* + - Privacy and Security in Multimedia: A Social Context
		- Image/Video Metadata Encryption, Scrambling ….
		- Image/Video privacy and security framework
		- Image/Video Cryptanalysis
		- Secure content management system in Medicine, Genome, Journalism, Military….
		- Blockchain

# LIST OF CONTRIBUTED PAPERS

**Papers and authors invited:**

1. Title: JPEG Privacy and Security: A Social Media Context Authors: A Natu, T Ishikawa & P Schelkens; Correspondence author: Ambarish Natu, email: ambarish.natu@gmail.com

Abstract: Privacy and security support for image data is becoming steadily more important seen the fact that image collections are increasingly more stored in distributed and cloud repositories rather than in private repositories. Moreover, social media and online photo repositories, for example, are currently offering insufficient means to secure privacy-sensitive information carried by the picture or to signal associated IPR metadata. Paper outlines some of the challenges, requirements outlined by the industry, users and privacy policy advocates on the framework required.

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# BIOGRAPHY

# Ambarish Natu

Ambarish Natu received his Bachelor of Engineering in Instrumentation and Control from the University of Pune, India in 1999 and Master of Engineering (Research) in Electrical from The University of New South Wales (UNSW) in 2003.

Ambarish Natu currently works as an IT Architect within the Information Architecture Team of the Australian Taxation Office where he is responsible for developing data models for effective compliance activities. Since 2002 Mr. Natu has been involved in the development of several standards under the auspices of the ISO, IEC and ITU-T as Editor/Chair/Co-Chair. Mr. Natu has been an active contributor on Australian Standards Committee IT-029, IT-012-04, CT-002 and IT-039 for more than a decade. Mr. Natu is a Fellow of the Institute of Engineers Australia, a Chartered Practising Engineer and a Senior Member of IEEE. He currently serves on the Canberra Division Committee and the ITEE Canberra Division Committee of Engineers Australia. Mr. Natu is also the Vice-Chair for the IEEE ACT section in Australia.

# Peter Schelkens

Peter Schelkens received his degree in electronic engineering in VLSI-design from the Industriële Hogeschool Antwerpen-Mechelen (IHAM), Campus Mechelen. Thereafter, he obtained an electrical engineering degree (MSc) in applied physics, a biomedical engineering degree (medical physics), and, finally, a PhD degree in applied sciences from the Vrije Universiteit Brussel (VUB).

He currently holds a professorship at the Department of Electronics and Informatics (ETRO) at the Vrije Universiteit Brussel (VUB). Peter Schelkens is VP Research "Data Science" at the [iMinds](http://www.iminds.be) institute founded by the Flemish government to stimulate ICT innovation. Additionally, since 1995, he has also been affiliated to the Interuniversity Microelectronics Institute ([imec](http://www2.imec.be/be_en/home.html%22%20%5Ct%20%22blank)), Belgium, as scientific collaborator. Since 2010, he became a member of the board of councillors of the same institute. From 2002 till 2011, Peter Schelkens has held an FWO postdoctoral fellowship and since 2014, he holds an ERC Consolidator Grant focusing on [digital holography](http://www.erc-interfere.eu/).

# Takaaki Ishikawa

Takaaki Ishikawa received his Bachelor of Engineering from Waseda University, Japan in 2003 and Master of Science in Global Information and Telecommunication Studies from Waseda University, Japan in 2005.

He is a visiting researcher at Waseda University where he leads a research group on image processing. He is also a lecturer at Tokai University and Tokyo Polytechnic University. From 2007 till 2010, he was a research associate at Waseda University. Since 2012, he works at JuGeMu co., ltd as a research scientist where he leads an engineering team for developing media content distribution systems under national projects. Since 2012, he has been an active contributor to the ISO/IEC/ITU-T standards as editor. He serves as a chair of study activities on JPEG Privacy and Security. He is also a member of the executive committee on Picture Coding Symposium Japan.