

EAB agrees on Strategic Partnership with London Identity Week



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[Full story](#)

EAB launches Biometric Awards 2019



EAB is launching a call for nominations for the thirteenth European Biometrics Research and Industry Awards. These prestigious awards are granted annually to individuals who have been judged by a panel of internationally respected experts to be making a significant

[Full story](#)

Biometrics and Blockchain Workshops in 2019



The blockchain technology has matured over the last years and created significant attention. However for many applications and specifically those involving biometrics it is not yet clear, what the benefit of blockchains over server-based solutions is.

[Full story](#)

Next events:

- March 19, 2019:** German TeleTruST Biometrics Working Group
- May 9, 2019:** Norsk Biometri Forum Meeting
- May 14 – 18, 2019:** FG2019 – 14th IEEE International Conference on Automatic Face and Gesture Recognition
- May 27 – 31, 2019:** 16th International Summer School for Advanced Studies on Biometrics for Secure Authentication: Biometrics and Forensic Science in the Deep Learning Era

Special reports:

January 2019

Biometrics challenges in the age of GDPR
Finding the right balance between technical, legal and ethical demands

2018 BIOSIG Conference

Conference report on IEEE BIOSIG 2018

Darmstadt, Germany, 2018-09-28

The 17th edition of the international Conference of the Biometric Special Interest Group (BIOSIG) took place at Fraunhofer IGD in Darmstadt, Germany from September 28 to 30, 2018. BIOSIG is a sub-part of the Darmstadt Biometric Week, which attracted more than 200 participants. They were accompanied by several of the key high-profile talks, including the US to Darmstadt transfer to join the BIOSIG community.

[www.eab.org](#) [Facebook](#) [Twitter](#)

EAB RPC 2018
EAB Research Projects Conference

Darmstadt, Germany, 29-30 September 2018

The leading voice for digital ID & biometrics in Europe

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More specifically, EAB will chair the Planet Biometric Conference. Also EAB members will have a special rate to attend the conference.

As valued EAB member this is a unique opportunity for individuals, governments and institutions, start-ups, industry, academic or organizations to contribute to the [program](#). If you are interested to share your experience, innovation or other updates on biometric related topics feel free to reach out to Michiel van der Veen.

michiel.van.der.veen@eab.org

EAB launches Biometric Awards 2019



EAB is launching a call for nominations for the thirteenth European Biometrics Research and Industry Awards. These prestigious awards are granted annually to individuals who have been judged by a panel of internationally respected experts to be making a significant contribution to the field of biometrics research and innovations in Europe. The awards are recognizing innovation in academic research as well as in industry.

Applicants are asked to submit a research paper and supporting information by 15 May 2019. These papers will be reviewed by a jury composed of internationally recognized experts in the field of biometrics who will judge the academic and scientific quality for the EAB academic research award and the novelty, impact, applicability and the novelty, impact, applicability and other business aspects for the EAB industry award.

This year EAB will grant three awards:

- European Biometric Research Award 2019
- European Biometric Industry Award 2019
- EAB Max Snijder Biometric Award 2019

More information on how to apply is available at:

<https://www.eab.org/award/cfp.html>

Biometrics and Blockchain Workshops in 2019



The blockchain technology has matured over the last years and created significant attention. However for many applications and specifically those involving biometrics it is not yet clear, what the benefit of blockchains over server-based solutions is.

EAB is in preparation of two events that will discuss the benefit for blockchain technologies for biometrics. The first workshop will take place on March 7th at Norwegian Biometrics Laboratory. See the workshop program at: <https://www.eab.org/events/program/172>

The second event is planned for early summer this year and will take place at the University of Belgrade. That second event will be organized by the EAB

national contact point for Serbia, Lab for multimedia communications (mmklab.fon.bg.ac.rs). More information will be provided later.

Smartphone with Palm Vein Recognition

At the Mobile World Congress (MWC) in Barcelona a new Smartphone is presented.

The phone from LG introduces a palm vein authentication. You can read more at:

<https://www.techadvisor.co.uk/new-product/mobile-phone/lg-g8-3689878/>

New Yoti Social Impact Strategy to support digital identity innovation in the developing world

Not surprisingly, the primary focus of much of the digital identity sector is on the design, adoption and use of large-scale digital identity systems and how users interact with them. This includes national efforts, such as Aadhaar in India. Most of this research begins with the technology and works its way down to the people who use it, an approach which has given us something of a knowledge deficit.

What we're missing is an understanding of why people might want a digital identity, how they interpret or understand digital identity, their concerns and what tools and approaches might be missing in their local context.

While we know there are approximately 1.1 billion people around the world who would benefit from some form of (likely digital) identity, we know far less about their own personal motivations for wanting and using one. And without a fuller understanding of these kind of bottom-up issues, we have little chance of developing the most useful and appropriate solutions. We need to dive deeper and find out more if we want to increase our chances of adopting the right kind of identity – a [Good Identity](#) – in our sector.

While we remain committed to helping solve the problem of the 1.1 billion, our newly announced Social Impact Strategy is designed to help us better understand digital (and broader 21st century) identity perceptions, motivations, challenges, opportunities and concerns among grassroots communities and migrants around the world.

With a particular focus on emerging markets, the Strategy is made up of a number of key activities, including:

- Helping local researchers and policy makers to better understand the opportunities and issues through our exciting new annual Fellowship Program, launching in the next few weeks.
- Empowering local innovators and thought leaders by providing a support program for developing world innovation hubs, universities and business centres.
- Running competitions and challenges in support of local innovation efforts.
- Providing an open-source digital identity solution that is simple to use, free and completely offline. This has been designed specifically for grassroots, last-mile nonprofits and socially-focused groups.

Our Strategy has one key purpose: to help further the positive social impact of digital identity solutions globally and to ensure digital identity becomes a force for good – for everyone, everywhere.

You can download a copy of our Social Impact Strategy (PDF) [here](#) and the updated section of the Yoti website can be found [here](#).

The 6th Edition of the EAB Research Projects Conference is on the way

The 6th edition of the EAB Research Projects Conference will take place on the 16th, 17th and 18th of September 2019, at the premises of Fraunhofer IGD in Darmstadt, Germany.

The conference is organized by the European Association on Biometrics (EAB) in cooperation with the Joint Research Center (DG JRC) of the European Commission, through its Cyber and Digital Citizens' security Unit. The EAB-RPC 2019 will be co-located with the EAB Research Award and the IEEE BIOSIG Conference, later that same week. The conference is currently the largest event on research funded by the European Union in the area of Biometrics and Identity Management.

Over the previous five successful editions, EAB-RPC has become the main forum in Europe where attendees can simultaneously: promote research carried out in biometrics, forge new links and networks, and identify the appropriate partners for possible future project applications. Last year's edition welcomed over 100 participants from academia, industry and public institutions.

For further information on the conference, a detailed agenda, or to register to the event, please visit the dedicated website:

<https://www.eab.org/events/program/177>

If you would like your European-funded project to participate in the conference please contact the Scientific Chair:

javier.galbally@ec.europa.eu

Synthetic Face Images



The advances of Artificial Neural Networks in biometrics are well known. Recently a dedicated machine learning algorithm of the class of generative adversarial networks (GANs) was trained to render photo realistic facial images. GAN are working with a composition of two networks: On the one hand a generator and on the other hand a discriminator, which iteratively adjust the network status and finally generate the facial image.

The website <https://thispersondoesnotexist.com> generates a new synthetic face image upon every visit. The synthetic images are very realistic and show an impressive variety with respect to age and ethnic background.

You can also read on the subject the following articles for more background:

<https://www.dpreview.com/news/5207032592/nvidia-researchers-create-ai-that-generates-photo-realistic-portraits>

<https://arxiv.org/pdf/1812.04948.pdf>

Draft International Standards for Biometric Passport

In the January meeting of the ISO/IEC JTC 1/SC 37 on Biometrics a ballot on the second Draft International Standards (DIS) of the new passport standard ISO/IEC 39794–1, Extensible biometric data interchange formats – Part 1: Framework, was launched.

Now this framework standard can be reviewed once more and can be synchronized with

- ISO/IEC 39794–4 Finger image data
- ISO/IEC 39794–5 Face image data

The set of these three standards will after this last commenting round be promoted to Final Draft International Standard (FDIS), which will be a decision to be taken at the next SC37 meeting in Darmstadt on July 8–12, 2019.

A core concept followed by this new standards series is that encoding of biometric data will be done in an extensible data structure, as it is needed for future ePassports.

The current timeline agreed with ICAO is that the new standard series is to be finalized in December 2019 such that ICAO can adopt its 9303 specification by April 2020 and then refer to ISO/IEC 39794–1, –4 and –5.

If you are working in the field of biometrics (face–recognition) please take a look at the current DIS documents. As a fallback you can review the earlier publicly available Committee Draft (CD) under the following URLs:

ISO/IEC CD 39794–1 Extensible biometric data interchange formats –

Part 1: Framework:

<https://isotc.iso.org/livelink/livelink?func=ll&objId=19612955&objAction=Open&viewType=1>

ISO/IEC 2nd CD 39794–5 Extensible biometric data interchange formats –

Part 5: Face image data:

<https://isotc.iso.org/livelink/livelink?func=ll&objId=19917728&objAction=Open&viewType=1>

Please consider to contribute with your comments to ensure technical correctness of future passport standards.

In order to submit comments on the DIS documents please contact your national standardisation body (and the respective mirror–committee of SC37 – see: <https://www.iso.org/members.html>)

Neurotechnology's palm algorithm took lead at FVC

Neurotechnology has reported the latest FVC-onGoing test results for their Palm Print recognition algorithm

The Palm Print Matcher, part of Neurotechnology's MegaMatcher SDK, was ranked as the most accurate for both full and partial palm prints, as the fastest partial palm print matcher and the fastest full-print matcher out of the five most accurate matchers. Neurotechnology's algorithm also has the smallest template size overall, both in full palm print and partial (lower) palm print datasets.

"Our expertise in fingerprint recognition technologies carries over to palm print matching," said Dr. Justas Kranauskas, head of the biometric research department for Neurotechnology. "Though the palm print is a larger, more detailed recognition task, our experience in this field allows us to bring the most accurate, highest efficiency application available to the palm print recognition market."

Because of its complexity, palm print template matching requires much more computational time than single or multiple fingerprint matching. Focusing on speed, as well as accuracy, Neurotechnology has developed a palm print matching algorithm that is the fastest partial (lower) palm print matcher and fastest full palm print matcher out of the top five most accurate full palm print matchers in FVC-onGoing. It is suitable for both 1-to-1 (verification) and 1-to-many (identification) applications.

Read more: <http://www.planetbiometrics.com/article-details/i/9975/desc/neurotechnologys-palm-algorithm-took-lead-at-fvc/>

Eurotunnel to be first non-airport border crossing to use automatic face recognition technology

By reinforcing security whilst improving the flow of travellers at borders, passenger satisfaction will be improved.



Eurotunnel's terminals are to be equipped with SAS PARAFE (E-Gate) technology, as used at airports, at the road and rail border between UK and France following Eurotunnel's recent partnership with IN Groupe.

This is the result of collective work carried out over several months between Eurotunnel and IN Groupe, under the authority of the Minister of the Interior in France. This hi-tech investment financed by Eurotunnel will make it easier for passengers holding biometric passports to cross the border.

The use of this technology contributes to the modernisation of operational border management and the evolution towards intelligent management. It also makes possible the objective of facilitating more and speeding up border crossings.

Read more: <https://www.globalrailwayreview.com/news/77691/border-face-recognition-technology/>

Face Recognition Systems under Morphing Attacks

Researchers of the FACETRUST project published an overview article on morphing attacks and their detection

Automated face recognition represents a longstanding field of research in which a major break-through has been achieved by the introduction of deep neural networks. Recently, researchers found that the intended generalisability of (deep) face recognition systems increases their vulnerability against attacks. In particular, attacks based on morphed face images pose a severe security risk to face recognition systems.

In the last few years, the topic of (face) image morphing and automated morphing attack detection has sparked the interest of several research laboratories working in the field of biometrics and many different approaches have been published. In the work published by Scherhag et al., a conceptual categorisation and metrics for an evaluation of such methods is presented, followed by a comprehensive survey of relevant publications. Additionally, technical considerations and trade-offs of the surveyed methods are discussed along with open issues and challenges in the field. The survey paper primarily addresses biometrics researchers and practitioners.

You can find the full paper at: <https://ieeexplore.ieee.org/document/8642312>

Workshop on Multimodal Imaging of Forensic Science

The EU COST Action CA16101, [MULTI-modal Imaging of FOREnsic SciEnce Evidence \(MULTIFORESEE\)– tools for Forensic Science](#) , is delighted to announce the first industry led workshop entitled "Industry meets academia and end users" in Vienna, which will take place on April 12, 2019.

This workshop is a rare opportunity for industry ONLY to take the stage and present their innovation in the field of biometrics imaging. The purpose is two fold:

1. to initiate a dialogue between industry, end users and academia promoting a synergy leading to commercially exploitable and operationally viable forensic science imaging.
2. For industry to present their relevant to the Action sales portfolio and having the opportunity for collaborative R&D improving current products as well as practitioners/end user expansion of contacts.

For further information, including logistics and Presentation Title submission/confirmation of attendance and presentation please contact Prof. Martina Marchetti-Deschmann (martina.marchetti-deschmann@tuwien.ac.at) and Prof. Simona Francese (s.francese@shu.ac.uk)

Proposal to Lower the Fingerprinting Age in VIS



Since 2011, the Visa Information System (VIS) has served as the technology solution facilitating the short-stay visa procedure and helping visa, border, asylum and migration authorities to rapidly and effectively check the necessary information on third-country nationals who need a visa to travel to the EU. The VIS allows Schengen States to exchange visa data and among other tasks it performs biometric matching of fingerprints for identification and verification purposes.

The VIS Regulation (EC) No 810/2009 allowed the fingerprinting of children from 12 years old onwards. However, already when it was adopted, this regulation recognised that the issue of the sufficient reliability for identification and verification purposes of the fingerprints of children under 12 and, in particular, how fingerprints evolve with age, would have to be addressed at a later stage. As a result, in 2013, the European Commission's DG Joint Research Centre (DG JRC) carried out a first qualitative study into whether or not automated fingerprint recognition for children can produce

recognition rates similar to those of adults. The DG JRC study concluded that fingerprint recognition of children aged between 6 and 12 years is achievable under certain conditions. Following those initial results, in 2018, DG JRC carried out a second and more comprehensive study which confirmed the original observations and quantified the accuracy variation of fingerprint recognition systems with respect to adults not only for children but also for the elderly, providing further insight into the effects of age and ageing on this technology.

The Commission through DG HOME conducted further consultations looking into the necessity and proportionality of lowering the fingerprinting age for children in the visa procedure. As a consequence of these scientific studies and consultations, the Commission issued an official proposal in May 2018 to lower the fingerprinting age for children in VIS from 12 to 6 years of age.

This measure will allow officials to verify a child's identity in the visa application procedure, and will enable checks when crossing an external border. Furthermore, by making it possible to unambiguously identify children, the measure will better protect children and help fight against trafficking and irregular migration while keeping the child's best interests at the fore. Additional safeguards are introduced in law in order to ensure that the best interests of the child are preserved throughout the visa processing procedure and in any subsequent use of children's data.

Link to the 2013 DG JRC study:

<http://publications.jrc.ec.europa.eu/repository/bitstream/JRC85145/fingerprint%20recognition%20for%20children%20final%20report%20%28pdf%29.f>

Link to the 2018 DG JRC study:

http://publications.jrc.ec.europa.eu/repository/bitstream/JRC110173/jrc_fingerprint_children_elderly_study_v.final.pdf

Link to proposal by the Commission to lower the fingerprinting age (2018-05-16):

https://eur-lex.europa.eu/resource.html?uri=cellar:b94ebc62-59a9-11e8-ab41-01aa75ed71a1.0_001.02/DOC_1&format=PDF

BTAS seeking competition proposals

The organisers of the 10th IEEE International Conference on Biometrics: Theory, Applications and Systems (BTAS) to be held on 23–26 September 2019 in Tampa, Florida invite competition proposals.

Competitions are a key component of academic events, since their main goal is to benchmark state-of-the-art algorithms, to consolidate research and identify open problems. In this respect, if conceived and carried out in a fair and expert way, they can represent effective means for recording the latest progress in specific topics. They represent a challenge to the academic community, so that the competition organizers have the possibility to contribute pushing the state of the art in specific subjects.

The deadline for submitting competition proposals is February 18, 2019.

Decisions will be notified to organizers by February 25, 2019. More information is available at:

<http://ieee-biometrics.org/btas2019/competition.html>

Council Presidency and EU Parliament agree on EU Information Systems

The European Council Presidency and the European Parliament have reached agreement on the draft regulations regarding the interoperability of EU information systems.

The systems covered in the regulatory framework serve the identification of individuals with the intent to fight identity fraud. This will be reached by interoperability of the entry/exit system (EES), the visa information system (VIS), the European travel information and authorization system (ETIAS), the Schengen information system (SIS), the EURODA system and also the European criminal records information system for third country nationals (ECRIS-TCN).

You can read more at: <https://www.romania2019.eu/2019/02/05/interoperability-between-eu-information-systems-council-presidency-and-european-parliament-reach-provisional-agreement/>.

Researchers developing sophisticated biometric spoof detection system with IARPA backing

A researcher at the University of Southern California's Information Sciences Institute is working with an international team to build spoof-proof biometric authentication systems



The team being led by USC researcher Wael Abd-Almageed uses additional scans to compliment biometric data, such as blood flow data captured by lasers, and material detection with shortwave infrared sensors. The system uses those in different combinations with other data sources such as 3D cameras and analyzes the data with artificial intelligence algorithms.

“We fuse all the information to provide rich data for the algorithm to give you a much better analysis of somebody’s face, iris and fingerprint,” according to Abd-Almageed.

The project is backed by IARPA, which recently awarded the group a second round of funding to work on a system to prevent a facial, iris, or fingerprint biometric spoof attack method never seen before.

“I think our technology could have great humanitarian impact by making people more secure,” says Abd-Almageed. “Everybody’s anticipating that biometrics are going to be the standard way to do many business

transactions in the future, from ATMs to border controls to smartphone access. We’re working to detect spoofing and protect lives.”

Concern about spoof attacks is moving beyond the biometrics industry with increased use of biometric authentication and the evolving threat of deepfakes.