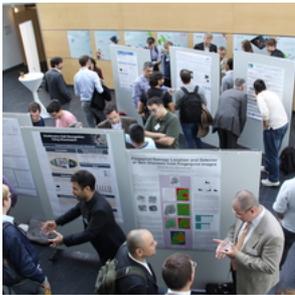


BIOSIG 2018



The 17th International Conference of the Biometrics Special Interest Group (BIOSIG) will be held in Darmstadt, Germany, from September 26 – 28, 2018. The deadline for submission is May 30th, 2018.

[Full story](#)

Next Generation Biometric Data Interchange Formats



Recently ISO/IEC JTC1 SC37 has published the Committee Draft (CD) of the next generation biometric data interchange formats. The draft documents are seeking comments by May 18th.

[Full story](#)

EAB Research Award 2018



EAB is launching a call for nominations for the twelfth **European Biometrics Research and Industry Awards**.

The awards are recognizing innovation in academic research as well as in industry.

[Full story](#)

Next events:

September 24 – 25, 2018: EAB Research Projects Conference (EAB-RPC) 2018

September 25, 2018: 8th EAB General Assembly

September 26, 2018: German TeleTrusT Biometrics Working Group

September 26, 2018: EAB Biometrics Research and Industry Awards 2018

September 27 – 28, 2018: BIOSIG 2018 – 17th International Conference of the Biometrics Special Interest Group

November 9, 2018: Seminar on Biometric Data and the GDPR

November 23, 2018: Norsk Biometri Forum Meeting

Special reports:

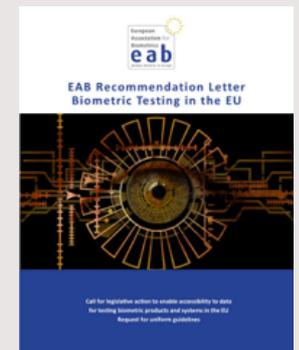
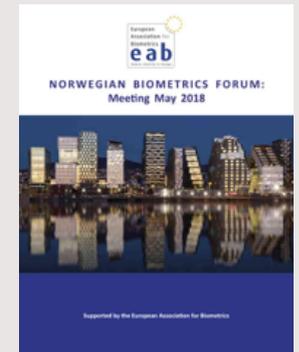
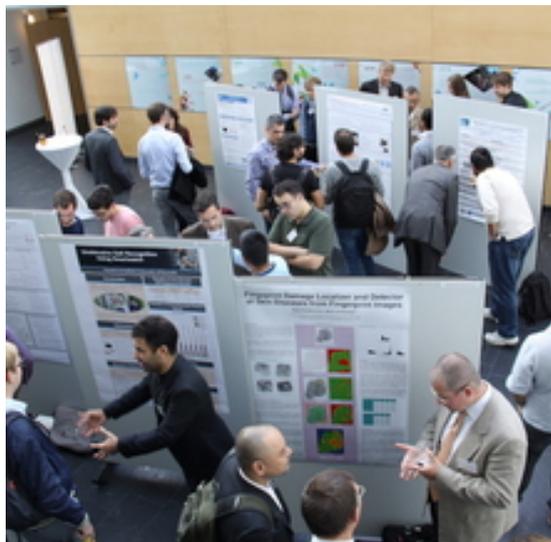


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BIOSIG 2018

Call for Papers



The 17th International Conference of the Biometrics Special Interest Group (BIOSIG) will be held in Darmstadt, Germany, from September 26 – 28, 2018.

The deadline for submission is May 30th, 2018.

For more information visit:

<http://www.biosig.org/biosig-2018>

BIOSIG 2018 will provide a forum for computer scientists and engineers from around the world to present their latest research findings and share new ideas in biometrics technology. The conference's broad scope will include biometrics applications in areas like border control, national ID cards, e-banking, e-commerce, e-health etc. Research contributions on a broad range of biometrics modalities such as face, iris, fingerprint, veins, handwriting, gait and other modalities are welcome.

BIOSIG 2018 invites stakeholders and technical experts to submit original research papers. Industrial contributions presenting lessons learnt from practical usage, case study, recent results of prototypes, are also welcome. Submissions should be full papers (max. 8 pages) in English.

The topics of the conference include but are not limited to: Biometric standards and interoperability, multimodal and multi-biometrics (sensor, modality, sample, feature, score and decision fusion), security analysis of biometric components or systems, on-card comparison, presentation attack detection, aging of reference data, template protection, derivation of cryptographic keys from biometrics, de-identification, user interface design for biometric systems, biometric performance measurement, sample quality, best practices, usability, continuous authentication, forensics and other emerging applications, ethical, legal and socio-technological aspects, biometrics for public administrations.

Keynote speakers will be:

- Edgar Beugels (FRONTEX): "Implementation and operational Impact of Biometric Systems for Border Control"
- Patrick Grother (NIST): "FRVT 2018"
- Stephanie Schuckers (MSU): "Presentation Attack Detection"

Important Dates:

2018-05-30 Deadline for paper submissions

2018-07-20 Decision to authors

2018-08-20 Camera-ready

2018-09-26 Conference starts

Next Generation Biometric Data Interchange Formats

seeking comments by May 18th



Recently ISO/IEC JTC1 SC37 has published the Committee Draft (CD) of the next generation biometric data interchange formats. The draft documents are seeking comments by May 18th.

A core concept followed by the new standard 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 as follows:

- ISO/IEC 39794-1, -4 and -5 are expected to be finalized in December 2019.
- ICAO will adopt its 9303 specification by April 2020 and then refer to ISO/IEC 39794-1, -4 and -5

The Committee Drafts of these standards are now seeking technical comments. If you are working in the field of interoperable biometric data please take a look at the current drafts, which you can find 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 CD 39794-4 Extensible biometric data interchange formats -

Part 4: Finger image data:

<https://isotc.iso.org/livelink/livelink?func=ll&objId=19610429&objAction=Open&viewType=1>

ISO/IEC CD 39794-5 Extensible biometric data interchange formats -

Part 5: Face image data:

<https://isotc.iso.org/livelink/livelink?func=ll&objId=19623554&objAction=Open&viewType=1>

Please consider to contribute to the upcoming SC37 meeting and participate in the discussion about these Committee Drafts. If you are interested, then please join your national standardisation body (and the respective mirror-committee of SC37 - see:

<https://www.iso.org/members.html>) and submit your comments before 18th of May.

EAB Research Award 2018

Call for submissions until May 15th



EAB is launching a call for nominations for the twelfth **European Biometrics Research and Industry Awards**.

The awards are recognizing innovation in academic research as well as in industry.

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.

Thus biometric experts with either of the following profiles should submit their work. Academic researchers enrolled in the last or penultimate year of a Ph.D. program or who have obtained a Ph.D., with major focus on biometrics, from a European academic institution no later than two years before the given deadline, might consider applying for the award. Further industrial researchers employed by European companies whose core business is biometrics might consider applying for the industry award, which

will be granted to the candidate that has created the strongest impact for industry.

Applicants are asked to submit a research paper and supporting information by **15 May 2018**. 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.

Shortlisted candidates will be asked to present their research papers in front of the jury, the EAB members and the public audience on 20 September 2018 during the European Association for Biometric scientific symposium in Darmstadt, Germany. All shortlisted candidates will be awarded with complementary one year EAB membership.

More information is available at: <https://www.eab.org/award/cfp.html>

SPRINGER enters an agreement with EAB

The publisher SPRINGER and the EAB have entered an agreement to strengthen the efforts informing the community about new research and developments in biometric and sensing technologies and their applications in practice.

According to the agreement EAB members have the opportunity to submit a book proposal to SPRINGER and to become book authors/editors. Such books can be "full-length" books (e.g. Springer's Handbook on Fingerprint Recognition) or alternatively SpringerBriefs (50–100 page Short Books, e.g. Efficient Biometric Indexing and Retrieval Techniques for Large-Scale Systems).

Interested EAB members can contact: christoph.busch@ntnu.no

NFIQ2.0 User Group Established

NFIQ 2.0 is a revision of the open source software NIST Finger Image Quality NFIQ. Recently a NFIQ2.0 user group was established, which met for the first time in April. The Ad-Hoc Group will deal with the exchange of experience for compilation and deployment of NFIQ2.0 and review and document the build process for all platforms (Windows, Android, Linux)

In 2004 NIST developed the first publicly available fingerprint quality assessment tool NFIQ. The major innovation of NFIQ was linking image quality to operational recognition performance. This had several immediate benefits; it allowed quality values to be tightly defined and then numerically calibrated. This, in turn, allowed for the standardization needed to support a worldwide deployment of fingerprint sensors with universally interpretable image qualities. Operationally, NFIQ has increased the reliability, accuracy, and interoperability of fingerprint recognition systems by identifying the samples that are likely to cause recognition failure.

Advances in fingerprint technology since 2004, necessitated the development of NFIQ2.0, which provides a higher resolution quality score (in range of 0-100 according to the international biometric sample quality standard ISO/IEC 29794-1:2016), lower computation complexity, as well as support for quality assessment in mobile platform. Furthermore, NFIQ2.0 is the basis for the new International Standard ISO/IEC 29794-4:2017 Biometric sample quality - Part 4: Finger image. NFIQ2.0 source code serves as the reference implementation of the standard and is available in GitHub at:

<https://github.com/usnistgov/NFIQ2>

Recently a NFIQ2.0 user group was established, which met for the first time in April. The Ad-Hoc Group will deal with the exchange of experience for compilation and deployment of NFIQ2.0 and review and document the build process for all platforms (Windows, Android, Linux). The next group telco will take place on June 18th, 2018. Interested NFIQ-users can contact the group chair: Ralph.Lessmann@CrossMatch.com

FRA Work on Biometrics and IT Systems

The European Union Agency for Fundamental Rights (FRA) has published a report that outlines the fundamental rights implications of collecting, storing and using biometric and other data in EU IT systems in the area of asylum and migration.

The report analyses the fundamental rights implications of collecting, storing and using biometric and other data in EU IT systems in the area of asylum and migration. The findings are based on socio-legal research carried out by FRA in 2015-2016, which focused on three key instruments in this field, namely European Dactyloscopy (Eurodac), the Schengen Information System (SIS II), and the Visa Information System (VIS).

For more information visit:

<http://fra.europa.eu/en/publication/2018/biometrics-rights-protection>

Gemalto wins British Passport Contract

Gemalto announced it has won an open tender for the production of the next generation of British passports. The contract is for 11.5 years, including 10 years of production and issuance services.

More information can be found at:

<https://www.biometricupdate.com/201804/gemalto-wins-british-passport-contract>

EAB Biometric News, April 30, 2018

REPORT: 8th Norwegian Biometric Laboratory Annual Workshop

(NBLAW)



The theme of this workshop was “Privacy and Biometrics” and speakers from the European Commission, the Netherlands, Croatia and Norway presented their vision on this topic.

The event was opened by the director of the Department of Information Security and Communication Technology (IHK), Nils Svendsen immediately followed by the chair of the NBL, Prof. Christoph Busch who presented the Norwegian Biometric Laboratory.

In the morning session Laurent Beslay from the European Commission Joint Research Center (JRC) talked about the opportunity of the General Data Protection Regulation (GDPR) for biometric research. He discussed the impact of the revision of the Schengen Information System (SIS), which will include in the future both fingermark and face recognition. From his perspective the GDPR will support the adoption of privacy by design for operational biometric systems. Moreover he emphasized on the new risk based approach, which will replace the former binary decision from the

Directive 95/46. The risk assessment shall be supported by Data Protection Impact Assessment (DPIA) process, to be conducted following advices of data protection authorities on the national or European level. This assessment must be implemented specifically for operational biometric systems at large scale. Laurent Beslay also pointed out that the Art 5.1(d) of the GDPR regarding requirements on data quality principle, expecting that data must be accurate and kept up to date. To comply with this requirement offers the opportunity for future research.

The second presentation was from Atle Arnes (Datatilsynet), who illustrated the daily challenges that a data protection authority has with the introduction of the GDPR. The new Norwegian Personal Data Act will likely not be issued in time by May 25. Some of the aspects of the new regulation will be special for Norway. He focused on the impact of the GDPR for processing of biometric data. This is discussed for instance in note 51 stating that the processing of photographs should not systematically be considered to be processing of special categories of personal data. Also discussed in this talk was the risk of function creep (e.g. with the storage of blood samples of newborns)

Catherine Jasserand from the University of Groningen talked about the impacts of the GDPR on biometric systems. She focused on a selection of topics including the definition and status of biometric data, the data protection impact assessment and data protection by design obligation. On the definition and status of biometric data, she discussed the notion and threshold of identification from a data protection perspective. She highlighted some terminological inconsistency between Article 4(14) and Recital 51 and suggested an interpretation of ‘unique identification’. Following Article 9, biometric data processed for ‘the purpose of uniquely identifying’ an individual are sensitive data. Last she mentioned an emerging issue concerning the ‘explainability’ of algorithms used in individual automated decision making. The GDPR sets forth in Art 13 the requirement that the data subject shall receive meaningful information about the logic involved. Svein Wang Dybvik (Sopra Steria) contributed a product developers perspective that is influenced by the needs of operators. Specifically he develops Automated Fingerprint Identification Systems (AFIS) that are in operation in Norway, Denmark and with Europol. The data protection principle that is relevant in these applications is that the processing of data is transparent, in terms of what, when, where, why and how the data is processed. He elaborated about the process of properly deleting data initiated on request or based reaching the end of the data retention period. This is a challenge to synchronize with communication partners (e.g. Prüm and Eurodac). Of interest is also the implementation of auditing processes across system boundaries and keeping a proper event log management.

The first presentation after the lunch was by Slobodan Ribaric from the University of Zagreb describing the relationship of privacy and de-identification and the dependency of privacy from real-life situation and the socio-technological context. De-identification is the process of removing or concealing personal information and relates to non-biometric personal identifiers (e.g. text, hair-style), biometric personal identifiers (e.g. facial or fingerprint characteristics), and soft-biometric personal identifiers (e.g. height, weight, hair color). The technical aspects of de-identification covers for still images technical measures as for instance blurring and pixelation but also scrambling and more sophisticated methods as warping and cartooning. However de-identification specifically for video data is in its infancy, but will become more relevant facing more and more drone-base surveillance systems.

In the talk of Raymond Veldhuis he reported about fast and accurate biometric signature recognition in the encrypted domain. He explained the pseudonymous identifier framework, which was standardised in ISO/IEC 24745. He compared this framework with the recently investigated homomorphic encryption approaches. With full homomorphic encryption one can conduct multiplication and addition in the encrypted domain and obtain a protected biometric system with no loss of recognition accuracy. Practical implementation for the moment can either conduct multiplications or additions, but is computationally feasible. The presented method based on the ElGamal approach includes a probabilistic encryption based on the log-likelihood-ratio as comparison method and allows for comparison of the similarity score to a threshold under encryption. The approach was finally compared with a Paillier homomorphic encryption scheme. In the concluding talk Kiran Raja presented the NTNU research on privacy in smartphone based biometric applications. An example application is electronic banking as it is investigated in the SWAN project and sponsored by the Norwegian Research Council. In this project the biometric modalities face, periocular and iris, fingerprint and voice recognition are investigated. He presented very recent research results for template protection that are based on hashing and can achieve not only high biometric accuracy with minimal degradation but also demonstrate unlinkability of the protected biometric references. The future of biometrics operation systems under the General Data Protection Regulation might not be completely clear after this workshop, but the various viewpoints of the speakers have helped to shed light on the future road.

The slides of the workshop and video recordings are available at: <https://www.eab.org/events/program/156>

The 9th NBL Annual Workshop is scheduled for 7th of March 2019.

EAB Biometric News, April 30, 2018

EU Commission proposes mandatory Biometrics in ID Cards

According to a proposal by the European Commission ID cards issued to EU citizens shall include face and fingerprint images.

The proposal of the Commission indicates that member states are not forced to introduce ID cards, but those countries that issue them shall be required to include as biometric reference data an image of two fingerprints and also a facial image.

Non-compliant cards shall be phased out within five years.

You can read more at:

<http://www.planetbiometrics.com/>

EAB Research Projects Conference 2018

Call for Contributions



The European Commission through DG Joint Research Centre teams-up again with the European Association for Biometrics (EAB) to organize the 5th edition of the EAB Research Projects Conference (EAB-RPC) focused on presenting the results of biometric related projects funded by the European Commission.

The EAB-RPC 2018 is scheduled for September 24–25, and will be hosted by Fraunhofer IGD, Darmstadt, Germany (30 minutes away by bus/train from Frankfurt airport).

The conference has established itself as a common forum in Europe where attendees can: publicize research carried out in biometrics, establish new links and networks, and find the appropriate partners for possible future project applications.

Last year's event counted with over 100 participants from academia, industry and public administrations. Following the spirit of previous years,

the EAB-RPC-2018 conference will present research results and discuss the benefit of biometrics for our European society.

If you want to actively participate in the conference presenting the progress of your projects, please contact the conference chair: javier.galbally@ec.europa.eu

The EAB-Research Project Conference 2018 will be co-located with the EAB Research Award and the IEEE BIOSIG Conference, that will take place in the same premises later that same week (26 to 28 of September).

Training and Education Committee

New Activities

The reconstituted EAB Training and Education Committee met for the first time on the 16th April 2018. The remit of the Committee is to support and promote skills, training and education in the field of biometrics and related identity technologies and services in Europe for the benefit of citizens.

It aims to do this by providing a forum from amongst the members of the EAB with an interest in this mission and by establishing and engaging in activities that support this remit.

The Committee is in the early stages of discussions concerning a number of developments including: an EAB introductory biometrics training course, on-line video talks and education material, and the establishment of an Industrial Panel to advise on training needs. We will also continue to support existing initiatives including the hosting of a repository for biometric-related training opportunities.

For further information about the activities of the Committee please contact the Chair, Richard Guest (r.m.guest@kent.ac.uk) for further information.

BISBA: Biometrics, Identity Science, and Behavior Analysis

A new COST Action is under preparation



A new COST Action is under preparation. The main objective of this proposal is to promote biometric technologies beyond traditional person authentication towards helpful tools for identity science and human behavior analysis and understanding.

The modalities under consideration include traditional biometrics like face and fingerprint, and also others more innovative like physiological signals (e.g., EEG and ECG) and other signals captured during the interaction of people with technology (e.g., touchscreen interaction, keystroking, and mouse dynamics).

The Action will use the unique networking and capacity-building capabilities provided by the COST framework to bring together the knowledge and expertise of complementary academic fields, including:

Biometrics, Computer Vision and Pattern Recognition, Human-Computer Interaction, Psychology, and Neuroscience. Key EU Industry and End-Users will be also involved in the Action to guide and exploit the work to be

conducted.



If you are interested in participating in this Action, please contact Dr. Julian Fierrez at Universidad Autonoma de Madrid, Spain (julian.fierrez@uam.es).

Sixth International Workshop on Biometrics and Forensics (IWBF 2018)

will be organized in Sassari, Italy on June 7,8, 2018

The **Sixth International Workshop on Biometrics and Forensics (IWBF 2018)** will be organized in Sassari, Italy on June 7,8, 2018. The workshop will be held back-to-back with the [15th edition of the International Summer School on Biometrics](#), to be held in Alghero the following week. The workshop series on Biometrics and Forensics is the premier international forum for research in the design and application of advanced biometric technologies for forensic science.

The **Sixth International Workshop on Biometrics and Forensics (IWBF 2018)** will be organized in Sassari, Italy on June 7,8, 2018. The workshop will be held back-to-back with the [15th edition of the International Summer School on Biometrics](#), to be held in Alghero the following week. The workshop series on Biometrics and Forensics is the premier international forum for research in the design and application of advanced biometric technologies for forensic science.

IWBF is specifically devoted to facilitate synergies in Forensic Biometrics research. State of the art research in areas such as biometrics, forensic science, surveillance, and multimedia forensics, will be presented. IWBF provides the opportunity for those concerned with the use of advanced biometric technologies in forensic applications, attracting participants from industry, research, academia and end-users. IWBF 2018 is sponsored by the EU project IDENTITY and technically co-sponsored by the IEEE Biometrics Council, IAPR and the EAB.

For more information on IWBF-2018 please visit: <http://iwbf2018.uniss.it>

EAB Biometric News, April 30, 2018

2020 International Joint Conference on Biometrics (IJCB): Call for Proposal



The IAPR Technical Committee on Biometrics (TC-4) and the IEEE Biometrics Council (IEEE-BC) are pleased to invite proposals for hosting the International Joint Conference on Biometrics in 2020 (IJCB 2020).

Proposals are due by JUNE 29, 2018. A committee established by IAPR TC-4 and IEEE-BC will evaluate all proposals by JULY 31, 2018.

The International Joint Conference on Biometrics combines two major biometrics annual research conferences: International Conference on Biometrics (ICB) and Biometrics Theory, Application and Systems (BTAS) conference. The blending of these two conferences will present an exciting event for the worldwide biometrics research community. Similar events were conducted in 2011 (http://www.cse.nd.edu/IJCB_11/), 2014 (<http://ijcb2014.org/>) and 2017

(<http://www.ijcb2017.org/ijcb2017/index.php>), and proved to be a success as evidenced by the number of paper submissions and delegates in attendance.

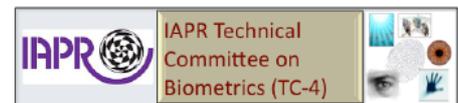
Each proposal should include information on (but not limited to):

- Host organization;
- Organizing and technical committees;
- Venue and dates (verify possible conflict with other major conferences in closely related fields);
- Accommodation arrangements;
- Paper review plan;
- Publicity plan;
- Timetable with critical milestones;
- Budget estimates;
- Sponsors.

2020 INTERNATIONAL JOINT CONFERENCE ON BIOMETRICS (IJCB): CALL FOR PROPOSALS



(DEADLINE: JUNE 29, 2018)



Further guidelines on IAPR and IEEE conference organization can be found here:

<http://www.iapr.org/conferences/schedule.php>

https://www.ieee.org/conferences_events/index.html

Proposals should be sent via e-mail to:

Dr. Arun Ross,

Chair

IAPR TC-4

Email: rossarun@cse.msu.edu

Dr. Sébastien Marcel,

VP of Conferences

IEEE Biometrics Council

Email: marcel@idiap.ch

