



**enhAnced Mobile BiomEtRics**

## **DELIVERABLE: D1.4**

### **2<sup>nd</sup> Network Periodic Report**

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# AMBER: enhanced Mobile BiomEtRics ETN

## Deliverable D1.4 – 2<sup>nd</sup> Network Periodic Report

### December 2018

#### Introduction

This report outlines the activities of the AMBER ETN network during 2018. AMBER officially commenced on the 1<sup>st</sup> January 2017 - this report highlights its second year of operation up to and including December 2018. The Network will run until December 2020.

#### Activities

With all the AMBER ESRs recruited and in place by mid-December 2017, 2018 represented the first full year of research activities. During this year the AMBER network has been effective in providing research environments both within host institutions and on the ESR secondment programme. Whilst the central focus of the ESR project has been on reviewing the state-of-the-art in each particular area and conducting initial experimentation, there have been other events within year in which the AMBER consortium has participated.

#### AMBER 1<sup>st</sup> Research Conference – Rome, 9-11<sup>th</sup> May

The first AMBER research conference was held at UNIROMA3 brought together the AMBER network: the academic leads of the five Amber institutions and our ten ESRs for the first time. Each ESR provided a five-minute presentation on their initial progress on the project. It provided an opportunity for each of the researchers to see how their individual areas linked up across the network. Professional development was provided by talks on applying for research funding, and the GDPR.

One of the most novel aspects of the conference was a fingerprint spoofing Hackathon. This provided an opportunity for the ESRs to work together in teams testing variety of shop-bought materials over 1.5 days to see if they could create a spoof fingerprint to unlock devices. The output of this event led to a publication at a major international conference in October.



AMBER Hackathon I – Rome, May 2018



The AMBER Team – Rome, May 2018

### AMBER 2<sup>nd</sup> Research Conference – Warsaw, 14<sup>th</sup>-16<sup>th</sup> November

The second research conference took place at the Faculty of Electronics and Information Technology, Warsaw University of Technology, Poland in November. As well as the ESRs and academic leads, speakers attended from NEXT Biometrics (AMBER industrial partner), Callsign and Hyperion Alfa Venture Capital Fund who provided an insight into industrial aspects of mobile biometric development, commercial opportunities for following the completion of a PhD, project communications skills (with specific focus on how to present research to investors and potential stakeholders) and Research Ethics

Following the success of the event in Rome, we staged a second hackathon on the final day of the conference which assessed a supplied biometric dataset of facial images taken across multiple environments, with the ESRs asked to propose a research question and then present results. The purpose of the exercise was to replicate short-term data analysis team exercises, often found in research and development, where off-the-shelf algorithms are employed to assess a proof-of-concept. As with Rome event, we envisage the outputs of this event to form a conference paper to be published in 2019.

### Other key AMBER events in 2018:

- European Association for Biometrics Research Projects Conference, September – We provided an update on network progress to the key European research event in the field. A special session will be organised at this event in 2019 enabling a more in-depth analysis of results and findings. Following this event, we have been invited to propose a book title to Springer in the field of mobile biometrics. This should be published in 2020.
- AMBER organised a Special Session at the EURASIP European Signal Processing Conference (EUSIPCO) in Rome in September, at which three of the AMBER projects were highlighted. The event was well attended and has led to the request for a special edition of EURASIP Journal on Information Security in 2019 which will be edited by the AMBER Team.
- AMBER was the sponsor of a Biometrics Institute event on GDPR held in Brussels in March attended by over 100 representatives of academia, industry and government.
- We have published 5 papers in this first full year of research with a number under review. This represents a significant achievement.
- Seven secondments have taken place across the Network.

**Key progress indicators include:**

- Continued engagement with Jeanne Pia Mifsud Bonnici, Professor in European Technology Law and Human Rights at the University of Groningen, as Ethics Advisor to the Network.
- Initial meeting of the AMBER Advisory Board in May. Next meeting will be in May 2019 during our next AMBER conference to be held in Spain. We will invite members to attend this meeting in person.
- We are currently planning for a series of secondments scheduled to take place during 2019.
- The Steering Committee has met in person in May and November (as per our Network plans). We also have held monthly WebEx conferences with representatives from each of the academic sites.
- The majority of Deliverables have been uploaded on schedule. We have had to make some rearrangements to a number of academic papers due the peer-reviewing process delays – these will be uploaded as soon as possible.
- AMBER is proceeding on budget.