CALL FOR PAPERS

Workshop on **"Next Generation Border Control Applications for 6G Mobile Systems"**

Scope

The use of biometric identification techniques coupled with efficient and secure wireless connections that enable access to EU law enforcement databases are proven techniques for ensuring efficiency and reliability. However, current biometric systems rely on one mode of biometric data that can at times can lead to false identification, in particularly under uncontrolled conditions during live sample acquisition (vehicular scenarios). Moreover, the current crop of scanning devices are limited in coverage and typically have fixed links, thus confining the range of border control applications and compromising the comfort of passengers. In this context, the research drive aims to go beyond legacy systems and propose an innovative passenger-centric biometric system that authenticates "on the fly", or so called zero footprint. The scientific fields of wireless security, biometric recognition and data fusion are combined through interdisciplinary research resulting in future platforms based on secure and wireless multimodal biometric scanning device for passenger verification targeting land and sea border control applications.

In addition to advancing innovation on border control security, the proposed research approach is the basis for a RISE training action that we refer to as eBORDER, that is the technical sponsor of this workshop. eBORDER is foreseen to enhance both the career potential of staff members and innovation capacity at the institutional level. In this context, this action brings together key players from industry and academia with complementary expertise on security, biometrics, data fusion and practical experimentation to train staff by research through intersectorial and international staff exchanges. This workshop is the first major international workshop dissemination event within a planned series that will bring together international research on next generation border control applications.

Topics of Interest

In this workshop, we welcome submissions of papers presenting original works. Submissions must not overlap with works that have been published or that are simultaneously considered for publication elsewhere. Specifically, we encourage researchers and industry experts to submit original contributions in the following major areas (indicative list, other related topics will also be considered):

- Beyond 5G/6G Mobile Networks

- Artificial Intelligence and Machine Leaning
- Fog/Edge Computing
- Virtualized Network
- Radio Resource Management
- PHY/MAC Design and Optimization
- 5G New Radio
- Spectrum Sharing
- Unlicensed Access
- mm-Wave Communication
- THz Communication
- Massive MIMO
- Massive IoT
- Smart Antenna
- Energy Efficient RF
- M2M Communication
- Security and Privacy
- Intrusion Detection and Prevention System (IDPS)
- Blockchain
- Biometric Authentication

Important Dates

Paper Submission (Extended) Deadline	31st August 2021
Paper Acceptance Notification	15th September 2021
Camera-Ready	1st October 2021
Conference Date	25-27th October 2021

Submission Guideline

Prospective authors are invited to submit a full paper of not more than six (6) IEEE style pages including results, figures and references. Papers should be submitted via EDAS. Papers submitted to the conference, must describe unpublished work that has not been submitted for publication elsewhere. All submitted papers will be reviewed by at least three TPC members, while submission implies that at least one of the authors will register and present the paper at the conference. Electronic submission will be carried out through the EDAS web site at the following link: https://edas.info/N28270

All accepted papers will be included in the conference proceedings and IEEE digital library (http://ieeexplore.ieee.org/).

Organizers

Dr. George Mantas, Instituto de Telecomunicações, Portugal

Dr. Claudia Barbosa, Instituto de Telecomunicações, Portugal

Mr. Gerrit Shulte, Acticom GmBH, Germany

Prof. Rami Qahwaji, University of Bradford, UK

Dr. Jose Ribeiro, Instituto de Telecomunicações, Portugal