NEWSLETTER

BORDER
UAS

EDITORIAL

Given the nature of the project as a **Research & Innovation Action** with an important **validation / demonstration** component, the consortium does not aim to redevelop novel technologies completely from scratch, but instead, to **use existing technologies**, improve them and combine them into an **innovative** and **integrated border control solution**. Thus, the consortium partners are oriented towards creating innovation both in areas such as **Data processing**, **Fusion and Interpretation**, as well as and on hardware such as **Acoustic Cameras, SAR, SWIR/LWIR**. With this special issue of the BorderUAS newsletter series, there is a list of all scientific papers published within the time span of the project so far on sensors, video analytics, data mapping and many more.

Check them out below and **click** the **links** (🔗) to have access to more **information**.

PUBLICATIONS

1. [Design of Sensors' Technical Specifications for Airborne Surveillance at Borders](#) , Journal of Defence & Security Technologies, 2022

Authors: Giorgos Kampas; Aggelos Vasileiou; Marios Antonakakis; Michalis Zervakis; Emmanouil G. Spanakis; Vangelis Sakkalis; Peter Leškovský; Sergio Sanchez Carballido; Razvan Gliga; Dejan Vinković; Bojan Pečnik

Partners involved KEMEA | TUC | FORTH | VICOM | HSF | SIMAVI

2. [I-PRIDe: Video-based Person Re-Identification](#) , 2022 IEEE International Conference on Imaging Systems and Techniques (IST)

Authors: J. Yang, P. Leškovský, A. Cortes, J. García and O. Otaegui

Partners involved: VICOM

3. [BUAS: A Knowledge-based Representation of the Border Surveillance Domain](#), 2022 IEEE International Conference on Imaging Systems and Techniques (IST)

Authors: I. Kontopodis, F. J. Iriarte, P. Leškovský, J. García and O. Otaegui

Partners Involved: VICOM

4. [Acoustic Sensor for Far-Field Sound Source Detection](#), The 6th International Acoustics and Audio Engineering Conference, as part of International competition of audio recordings - TAKTONS 2022

Authors: Dejan Todorović, Iva Salom

Partners Involved: DIRACS, IMP

5. [V2F: Real Time Video Segmentation with Apache Flink](#), 17th International Symposium on Visual Computing (ISVC), 2022

Authors: Dimitrios Kastrinakis, Euripides G.M., Petrakis

Partners Involved: TUC

PUBLICATIONS

6. [Ultra-sensitive graphene membranes for microphone applications](#), Nanoscale, 2023

Authors: Baglioni, G.; Pezone, R.; Vollebregt, S.; Cvetanović Zobenica, K.;Spasenović, M.; Todorović, D.; Liu, H.; Verbiest, G. J.; van der Zant, H. S. J.; Steeneken, P. G.

Partners Involved: DIRACS

7. [Real-Time Object Detection using an Ultra-High-Resolution Camera on Embedded Systems](#), 2022 IEEE International Conference on Imaging Systems and Techniques (IST 2022)

Authors: Marios Antonakakis, Aimilios Tzavaras, Konstantinos Tsakos, Emmanouil G. Spanakis, Vangelis Sakkalis, Michalis Zervakis, Euripides G.M. Petrakis

Partner involved: TUC

8. [Heatmap-based Explanation of YOLOv5 Object Detection with Layer-wise Relevance Propagation](#), 2022 IEEE International Conference on Imaging Systems and Techniques (IST 2022)

Authors: Apostolos Karasmanoglou, Marios Antonakakis, Michalis Zervakis

Partner involved: TUC

9. [Nexus: Proxy Service for the Web of Things](#), 37th International Conference on Advanced Information Networking and Applications (AINA 2023), Juiz de Fora, Brazil, March 29-31, 2023,

Authors: Isidoros Paterakis and Euripides G.M. Petrakis

Partner involved: TUC

CONTACT

If you are interested in our progress and developments, stay tuned through our various dissemination channels and the frequent blogposts that are available through our **website**.

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