

ASSIST-IoT H2020 Project

Newsletter Issue 12

August – October 2023



www.assist-iot.eu



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Inside This Issue

1. Issue Highlights
2. Communication & Dissemination Activities
3. Deliverables
4. 7th Plenary Meeting

ISSUE HIGHLIGHTS

The twelfth issue of ASSIST-IoT newsletter presents the project activities throughout August - October 2023 period. This issue focuses on the communication and the dissemination activities of the period, the WF-IoT conference, the HiPEAC magazine, and the 7th Plenary Meeting.

ASSIST-IoT trimester activities:

- 3 Publications
- 4 Presentations
- 1 Online Survey
- WF-IoT 2023 Activities
- HiPEAC Magazine
- 3 Submitted Deliverables
- 5 Upcoming Deliverables
- Pilot Visit
- 7th Plenary meeting

Communication and Dissemination Activities

Publications

The ASSIST-IoT paper entitled “Mixed Reality for health and safety monitoring” by Tina Katika, Thomas Papaioannou, Fotios K. Konstantinidis, Anna Dabrowska, Spyridon Nektarios Bolierakis, Monika Kobus, Małgorzata Okrasa, Georgios Tsimiklis, and Angelos Amditis, was accepted at IEEE International Conference on Imaging Systems and Techniques (IST2023), in October 17-19, 2023, at Copenhagen, Denmark. You may find more information about the event here: <https://ist2023.ieee-ims.org/>

The EuCloudEdgeIoT research community booklet is now available! Access it and learn about our project. find it online here: <https://zenodo.org/record/8171037>. The EUCloudEdgeIoT project contributes to the coordination of a portfolio of research projects in the CEI Computing Continuum funded under:

- Cloud Computing: towards a smart cloud computing continuum (ICT40-2020)
- Software Technologies (ICT-50-2020)
- Next Generation Internet of Things (ICT-56-2020)
- Future European platforms for the Edge: Meta Operating Systems (HORIZON-CL4-2021-DATA-01-05)
- Cognitive Cloud: AI-enabled computing continuum from Cloud to Edge (HORIZON-CL4-2022-DATA-01-02)
- Programming tools for decentralised intelligence and swarms (HORIZON-CL4-2022- DATA-01-03)
- Open source for cloud-based services (HORIZON-CL4-2022-DIGITAL-EMERGING-01-26)

ASSIST-IoT project has actively contributed to "Shaping the Future of IoT with Edge Intelligence How Edge Computing Enables the Next Generation of IoT Applications" book! Find out more here:



Presentations

Małgorzata Okrasa from CIOP-PIB presented "new Assist-IoT approach for a real-time risk assessment and management concerning UV light exposure at the construction site" during Perosh event 2023. You may find more information here:

<https://perosh.eu/news/5th-perosh-research-conference-anniversary-event/>

ASSIST-IoT Technical Manager Maria Ganzha presented "Federated Learning and ASSIST-IoT pilots" at the Future Polish Developers conference, 25-26 September 2023, Krakow, Poland.

Piotr Dymarski from Mostostal Warszawa SA had the opportunity to present the results of the ASSIST-IoT Project at the VI BIMForum, organized by ACCIONA. During his presentation, Piotr demonstrated how BIM, MR, and IoT can enhance health and safety processes on construction sites. We are thrilled to share that Piotr received the Disruptive Award for his presentation on this groundbreaking technology.

Fotios Konstantinidis from ISenseGroup/ICCS presented the ASSIST-IoT paper, entitled 'Mixed reality applications for health and safety monitoring', based on research conducted in the framework of our project at the IEEE IST- International Conference on Imaging Systems and Techniques (October 17-19, 2023) in the DTU - Technical University of Denmark.



"Adoption Barriers of Next Generation IoT technologies" Survey

This survey is part of the project "Architecture for Scalable, Self-*, human-centric, Intelligent, Secure, and Tactile next generation IoT' - 'ASSIST-IoT'", funded by the European Union's Horizon 2020 research and innovation programme under grant agreement no. 957258.

The Next Generation Internet of Things (NGIoT) leverages progress in enabling technologies such as 5G, cyber-security, computing continuum, AI, Augmented Reality and tactile internet, with the goal of building a competitive ecosystem of European IoT technology while ensuring end-user trust, security and privacy by design.

Task T8.4 of ASSIST-IoT project has developed this questionnaire containing tables and heterogenous fields in order to understand the adoption and implementation barriers of NGIoT solutions (i.e., administrative, political, financial, technological, geographical, cultural related barriers/drivers). T8.4 relies on the exposed information on the developed deliverables of the project (<https://assist-iot.eu>) and spreads this questionnaire to selected experts and stakeholders with technical background to gain knowledge on such barriers and drivers. You may find the survey

here:

https://forms.office.com/Pages/ResponsePage.aspx?id=31VGvnOsH0CnrhmMO3LQxnXnfREOP-BKOn4QQN_SU-IUMU44RE83WldMR0xYWE9YWDNJWDQyMDUxUi4u



WF- IoT 2023

The 2023 IEEE 9th World Forum on Internet of Things (WF-IoT 2023) brought the latest from the research and academic community. It included a broad program of papers and presentations on the latest technology developments and innovations in the many fields and disciplines that drive the utility and vitality of IoT solutions and applications. After extensive peer review, the best of the proposals were selected for the conference program, which included technical papers, tutorials workshops and industry sessions designed specifically to advance technologies, end to end solutions, systems and infrastructure, processes, and operating methods, that are contributing to how IoT can reshape the world and overcome the challenges we face, so that all individuals could participate in and enjoy life to the fullest.

ASSIST-IoT has variously participated in 2023's WF-IoT version. Extensively, the following activities has taken in the context of our project:

- ASSIST - IoT co-organized Session “Future Platforms for Cloud-Edge Continuum”
- “Towards autonomous configuration management for IoT ecosystems” Conference Paper by Piotr Lewandowski, Wiesław Pawłowski, Marcin Paprzycki, Maria Ganzha and Ignacio Lacalle Ubeda, ASSIST-IoT partners
- “Design Concepts of the ASSIST-IoT Smart Orchestrator for Managing the Realization of NGIoT Systems” Conference Paper by Alejandro Fornés-Leal, Francisco Mahedero Biot, Rafael Vaño, Raúl Reinosa Simón, Pawel Szmaja, Ignacio Lacalle, and Carlos Enrique Palau, ASSIST-IoT partners.
- Carlos Enrique Palau (UPV) and Wiesław Pawłowski (SRIPAS) presented the conference paper “Towards autonomous configuration management for IoT ecosystems”
- Francisco Mahedero (UPV) presented the conference paper “Design Concepts of the ASSIST-IoT Smart Orchestrator for Managing the Realization of NGIoT Systems”
- Carlos Enrique Palau (UPV) participated in the vertical panel 4 “Artificial Intelligence and Machine Learning”



**IEEE World Forum
on Internet of Things**

IEEE 9th World Forum on Internet of Things
12-27 October 2023 // Aveiro, Portugal

HiPEAC Info Magazine

The HiPEAC Info magazine is a quarterly publication providing the latest news on the activities within the European HiPEAC network, as well as activities on high-performance embedded architectures and compilers at large.

The theme of this magazine is mobility – a topic which, in 2023, evokes mixed feelings. On the one hand, mobility creates opportunities: it allows people to work, to study, to travel, and to ship products to customers worldwide. Safe and affordable mobility is one of the cornerstones of modern society.

Historically, the mobility revolution started at the beginning of the 19th century with the invention of the steam locomotive, which made it safe and convenient to travel outside the region where one was living. Before the 19th century, long-distance travel was complex and dangerous, and it is no coincidence that the word travel derives from the French ‘travail’, meaning hard labour.

ASSIST-IoT project is also featured in this issue! You may find us on page 25. The magazine is available here: <https://www.hipeac.net/magazine/7166.pdf>



Pilot Visit

In the context of 7th ASSIST-IoT Plenary meeting in Malta, ASSIST-IoT partners had the chance to visit the pilot field in Malta Free Port terminal. During this visit, partners monitored/performed real time testing activities. The visit took place on Friday 6th of October.



Submitted Deliverables

D2.12 Second Open Call Report [M39] – Complete report of all procedural/formal aspects of the second open call selection procedure.

D4.3 Final Core Enablers Specification and Implementation [M36] – Final specification and final version of implementation of components of horizontal planes.

D5.5 Traversal Enablers Development Final Version [M36] – Final software version.

Upcoming Deliverables

D7.4 Pilot Scenario Implementation – Final Version [M41] – This deliverable will document the three pilots and integrated third parties, addressing the proposed use cases and scenarios.

D8.3 Final Evaluation Report [M41] – The deliverable will provide the assessment findings covering: pilots, impact usability and process evaluation. Verifying project objectives achievement, and how they were achieved (process evaluation).

D9.4 Report on Contribution to Standardisation and International Fora –Final [M41] – Report on actions undertaken by the Consortium, standardization activities and contributions to various international fora.

D9.7 Business Models and Marketing Operations – Final [M41] – Compiles results of market analysis, implications (e.g., financial industrial/manufacturing, regulatory, environmental socioeconomic aspects) and business models to adopt by partners for ASSIST-IoT.

D9.8 Final Report on Impact Creation [M41] – Report on the achievements of the action in terms of communication, showcasing, dissemination and exploitation.



7th ASSIST-IoT Plenary Meeting

The 7th ASSIST-IoT plenary meeting took place in Terminal Link's premises in Malta, Free Port terminal (4-6 October 2023)! It was a very fruitful meeting where the partners had the chance to discuss about the project progress. Partners had also the opportunity to set the targets and the actions for the project's final period.



Communication Channels



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Call: H2020-ICT-2020-1
Topic: ICT-56-2020
Type of Action: RIA
Duration: 36 Months
Start Date: 1 November 2020

