

**First International Workshop on  
Latest Advances in Enterprise Architectures in the IoT Era (EAIoT'2021)**

<http://eaio2021.connect.rs>

**In conjunction with IEEE EDOC'21**

<http://ieee-edoc.org/2021/>

**Gold Coast, Australia, October 25, 2021**

**CALL FOR PAPERS**

Internet of Things (IoT), one of the fastest growing Information and Communication Technologies (ICT), is impacting organizations from all perspectives (e.g., operational, legal, financial, and competitiveness) forcing them to review their functional and non-functional practices. According to the International Data Corporation (IDC), *''IoT spending will increase by a compound annual growth rate (CAGR) of 13.6% from 2017 to 2022, reaching \$1.2 trillion within the next four years.* It is also predicted 41 billion IoT devices by 2027 and 70% of automobiles will be connected to the Internet by 2023.

To tap into the endless benefits and uses of IoT, the design principles and foundations of organizations' enterprise architectures are expected to adjust to ensure a smooth integration of IoT into these architectures' foundations namely organization, business, information, application, and technology. Aiming at examining these foundations separately and then collectively, this workshop is an open forum for discussions between academics and industry partners about the latest advances and developments in the dynamic field of enterprise architecture in the IoT era. The workshop addresses the lack of techniques and guidelines that would enable enterprises to integrate IoT into the life cycle of designing, developing, and deploying enterprise architectures. This integration should lead to a new generation of enterprise architectures that would foster not only a deeper retrospect on the involved interactive digital resources inside the life cycle covering data collection, information analysis, knowledge reasoning and wisdom strategies, but also a better understanding of potential threats as well as the development of new ways of aligning business and ICT resources together to improve the competitiveness of the enterprise in the background of the Artificial Intelligence (AI) trend.

Whilst, on the one hand, IoT enacts many opportunities that enterprises could tap into, there are also obstacles that could undermine these opportunities, on the other hand. Some of these obstacles are lack of standards that cover both enterprise architecture and IoT, security holes that potentially exist in IoT devices making them questionable in terms of trust, security, and privacy, IoT limitations like silo restriction, computational capabilities, lack of semantic technologies that should describe IoT in a machine-understandable manner, just to mention some.

## **Topics of Interest**

This workshop constitutes an opportunity for researchers from both disciplines enterprise computing (with focus on enterprise architecture) and IoT technologies to discuss how enterprises could capitalize on these technologies so, that, a new generation of business processes could spread over the emergent network of IoT. Topics for discussions include, but are not limited to:

- Standards for IoT-based enterprise architecture.
- Enterprise architecture for Industry 4.0.
- Data science for IoT-based enterprise architecture.
- Semantic technologies for IoT-based enterprise architecture.
- Agentification of IoT-based enterprise architecture.
- Interoperability inside and between IoT-based enterprise architecture.
- Guidelines and best practices for IoT-based enterprise architecture
- Privacy, trust, and security of IoT-based enterprise architecture.
- Context management and awareness for IoT-based enterprise architecture
- Case studies related to IoT-based enterprise architecture.

## **COMMITTEES**

### **Organizing committee**

- Ejub Kajan, State University of Novi Pazar, Novi Pazar, Serbia
- Zakaria Maamar, Zayed University, Dubai, UAE
- Yucong Duan, Hainan University, Haikou, China

### **Program committee**

- Mohammad Asim, FAST NUCES, Pakistan
- Saoussen Cheikhrouhou, University of Sfax, Tunis
- Marco Cremaschi, Università di Milano-Bicocca, Italy
- Christophe Cruz, Université de Bourgogne, France
- Frank Dieter-Dorloff, University of Duisburg-Essen, Germany
- Qiang Duan, Pennsylvania State University, USA
- Abdelrahman Elfaki, University of Tabuk, Saudi Arabia
- Rik Eshuis, Eindhoven University of Technology, The Netherlands
- Noura Faci, University Lyon1, Lyon, France
- Francisco Falcone, Public University of Navarra, Pamplona, Spain
- Veit Jahns, University of Duisburg-Essen, Germany
- Soraya Kouadri Mostefaoui, Open University, UK
- In Lee, Western Illinois University, USA
- Sylvain Lefebvre, Toyota, Japan
- Nanjangud C. Narendra, Ericsson, India

- Hien D. Nguyen, University of Information Technology, Vietnam
- Alexander Norta, Tallinn University of Technology, Estonia
- Guadalupe Ortiz-Bellot, Cadiz University, Spain
- Pitaya Poompuang, Rajamangala University of Technology Thanyaburi, Thailand
- Dragan Stojanović, University of Niš, Serbia
- Yang Xu, Fudan University, China
- Chen Yang, Gent University, Belgium
- Joe Zhou, IBM, USA

## **IMPORTANT DATES AND SUBMISSION**

### **Important Dates**

- Paper Submission: June 18, 2021
- Authors Notification: July 16, 2021
- Camera Ready submission: July 30, 2021
- Author registration: July 30, 2021
- Workshop: October 25, 2021

### **Submission format**

The workshop welcomes conceptual and technical submissions as well submissions summarizing real case-studies. Submission should follow IEEE Computer Society Conference Proceedings Formatting Guidelines (8-10 pages for full and 4-6 pages for short) and be submitted in PDF format using the online **EasyChair** submission system at <https://easychair.org/conferences/?conf=eaiot2021>. All submissions will be refereed by at least 3 members of the international program committee. Selection criteria will include relevance, significance, impact, originality, and technical soundness.

### **Publication**

The Proceedings will be published by the IEEE Computer Society Press and be available through IEEE Xplore and the IEEE Digital Library. Organizers are discussing with leading publishers to assure publications of extended accepted papers in a special issue in an appropriate journal. Details will be available soon.

## **REGISTRATION PROCEDURE**

At least one author of each accepted paper should register to the venue and present the paper. Further instructions will be available in due course.