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Interoperability, Safety and Security in IoT

Third International Conference, InterIoT 2017
and Fourth International Conference, SaSeIot 2017
Valencia, Spain, November 6–7, 2017
Proceedings

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Preface

Welcome to the proceedings of the third edition of the EAI International Conference on Interoperability in IoT (InterIoT2017). We are delighted to introduce the proceedings of this conference that has brought together researchers, developers, and practitioners around the world.

While still in its infancy, the IoT domain already includes a number of implemented solutions, ranging from networked smart devices to even large-scale distributed platforms. However, the heterogeneity at all levels of these solutions is preventing different systems from interoperating effectively, despite significant efforts in the development of a unique reference standard for IoT systems technology. The situation is likely to worsen in the near future, as a lack of interoperability causes major technological and business-oriented issues such as impossibility to plug non-interoperable IoT devices into heterogeneous IoT platforms, inability to develop IoT applications exploiting multiple platforms in homogeneous and/or cross domains, slowness of IoT technology introduction at large-scale, discouragement in adopting IoT technology, increase of costs, scarce reusability of technical solutions, and user dissatisfaction.

This conference was created with the aim of investigating such lack of interoperability in the IoT realm by welcoming papers providing innovative research-oriented as well as industry-oriented contributions focusing on interoperability, integration, and interconnection of heterogeneous IoT systems, at any level. It is worth highlighting that Prof. Fortino and Prof. Palau are also partners in the H2020 ICT-30 Call INTER-IoT project having "IoT Interoperability" as the main goal.

Ten papers were selected that cover some of the main topics related to IoT development, interoperability, integration, and interconnection, from several viewpoints: device, networking, middleware, application services, semantics, and overall IoT platform.

We hope you enjoy our program and contribute to future editions of this conference. We would like to thank the Technical Program Committee for working hard in selecting the best papers that represent the intended scope of the conference.

Last but not least, we thank the authors and attendees for making this conference an interesting reality. With your help, we hope to further promote the growth of our conference series.

May 2018

Giancarlo Fortino
Carlos E. Palau
Athanasios V. Vasilakos
Antonio Liotta
Raffaele Gravina
Antonio Guerrieri

Preface

We are delighted to introduce the proceedings of the fourth edition of the 2017 European Alliance for Innovation (EAI) International Conference on Safety and Security in Internet of Things (SaSeIoT). This conference has brought together technology experts, researchers, designers, practitioners in academia, authorities, and industry experts from around the world who are leveraging and developing IoT technologies in the context of safety and security. The Fourth EAI International Conference on Safety and Security in Internet of Things (SaSeIoT 2017) was held in Valencia, Spain, on November 6, 2017, in conjunction with InterIoT 2017 conference.

This international conference attracted submissions from various countries. Each paper went through a rigorous peer-review process, with each submission receiving multiple reviews from the members of the Technical Program Committee. We could only select a few of the highest-quality papers for inclusion in the final program. Thus the technical program of SaSeIoT 2017 consisted of seven full papers in oral presentation sessions at the main conference themes. The conference themes were: Theme 1, "Ensuring the Resilience and Security of IoT-Dependent Infrastructures"; Theme 2, "Using IoT for Crisis and Emergency Management"; Theme 3, "Privacy in IoT"; and Theme 4, "Security and IoT Cloudification." The accepted papers, which focus on security, safety, and privacy issues, provided great insight into the latest research findings in the area of the Internet of Things. Aside from the high-quality technical paper presentations, the technical program also featured two excellent invited talks. The invited talks were presented by Prof. Antonio F. Skarmeta from the University of Murcia, Spain, and Prof. Juan Tapiador from Universidad Carlos III de Madrid, Spain.

We strongly believe that the SaSeIoT conference provides a good platform for all researchers, experts, developers, authorities, and professionals to discuss all safety and security technology aspects that are relevant to IoT. We would like to thank all the people who worked hard to make this conference a real success. First and foremost, we thank all authors who submitted their papers for consideration as well as all Technical Program Committee members for providing rigorous, timely reviews. We would also like to thank the European Alliance for Innovation (EAI) for its sponsorship.

November 2017

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