

## ***ACM Transactions on Internet of Things:*** **Inaugural Issue Editorial**

The Internet of Things (IoT) demands synergy among several research domains and incorporates a broad range of multidisciplinary topics, including low-power wireless networking, embedded systems, data streaming architectures, data analytics and machine learning, cloud and edge computing, service computing and middleware, and security and privacy, as well as social computing.

*ACM Transactions on Internet of Things* (TIOT) publishes novel research contributions and experience reports broadly related to these topics and their interrelations in the context of IoT, with a focus on system designs, end-to-end architectures, and enabling technologies, covering in principle the entire spectrum from hardware devices up to the application layer.

Along with this large breadth of scope, another defining element of TIOT is that the results and insights reported in it must be corroborated by a strong experimental component. This is expected to offer evidence of the proposed techniques in realistic scenarios (e.g., based on field deployments or user studies) or public datasets, with the intent to facilitate adoption and exploitation in the real world of the novel ideas published in TIOT. In the same light, experience reports about the use or adaptation of known systems and techniques in real-world applications are equally welcome, as these studies elicit valuable insights for researchers and practitioners alike.

This first, inaugural issue bears witness to the aforementioned breadth of topics and emphasis on experimental validation, as it begins with articles proposing novel system-level techniques concerned with wearable computing and light-based positioning, continues with contributions concerned with security at the edge and IoT services in the cloud, and then ends with the definition of ontologies for IoT applications.

Many other interesting papers have already been accepted and will appear in the upcoming issues. All of these high-quality contributions have been selected from an outstanding number of submissions from all over the world. We are very excited to see that the research field of IoT is increasingly gaining momentum.

In this respect, we are fortunate to have an outstanding editorial board helping us with the process of reviewing and selecting from these many and diverse submissions. The associate editors on the board reflect the scientific mission and values of TIOT and comprise top-notch researchers from academia and industry, with a balanced mix of seniority, gender, and geography. We sincerely thank all of them for accepting to help us in the delicate task of bringing the first issues of TIOT to reality.

Indeed, ACM TIOT is the result of the work of many people, some of whom we want to publicly thank in this inaugural editorial. We are very grateful to Steve Welch and the ACM Publications Board for kickstarting the process by contacting us and planting the seed of a new transaction on IoT in our heads. Lothar Thiele and Tarek Abdelzaher drafted the journal proposal alongside us, offering insights that were key in defining the current scope of TIOT; we are honored to have both

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of them on our editorial board. The patience, knowledge, and competence of Laura Lander has been fundamental in bootstrapping the journal management infrastructure at ACM and in moulding it around our many requests; the dedication of Holley Cornetto helped us with the everyday handling of manuscript submissions. Finally, we are thankful to Matteo (Ceriotti) Zella for taking up the role of information director and helping us with the TIOT website and the many other tasks related to the online presence for our journal.

ACM TIOT has been in the making for nearly 2 years; it is gratifying to see it come to life. Now it is time to thank you, our readers, for reading this very first issue. It is our hope that you enjoy the novelty, depth, and breadth of its articles, which represent a high-quality sample of the multifaceted work in this field; we are excited to see that IoT research at large has now found its home.

Schahram Dustdar and Gian Pietro Picco

*Editors-in-Chief*