

Advancing Computing as a Science & Profession

NEWS RELEASE

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ACM PUBLISHES NEW JOURNAL ON INTERNET OF THINGS

New Publication Chronicles One of the Most Transformative Developments of the 21st Century

New York, NY, March 5, 2020 – ACM, the Association for Computing Machinery, today published the inaugural issue of <u>ACM Transactions on Internet of Things (TIOT)</u>. The new ACM journal features novel research contributions and experience reports in several research domains whose synergy and interrelations enable the Internet of Things vision. *TIOT* focuses on system designs, end-to-end architectures, and enabling technologies, and publishes results and insights corroborated by a strong experimental component.

Few recent innovations promise to be as transformative to the way we live and work in the 21st century than the Internet of Things (IoT), a rapidly growing network of computers, mobile devices, physical objects embedded with sensors and processors, software, and a worldwide communications infrastructure that connects it all together. The Internet of Things connects billions of devices that collect and share data, while integrating the physical and digital worlds.

"The reason there has not been a single publication that can serve as a standard for the community is because the IoT is a synergy among several research domains and incorporates a broad range of multidisciplinary topics," explains TIOT Co-Editor-in-Chief Schahram Dustdar, Technical University of Wien. "ACM has taken the leadership in developing this new journal as a way to bring together professionals working in disparate fields related to the Internet of Things. TIOT is envisioned as one publication that will cover the entire spectrum of IoT technologies, from hardware devices up the application layer."

TIOT welcomes papers on a diverse array of topics including low-power wireless networking, embedded systems, data streaming architectures, data analytics and machine learning, cloud and edge computing, service computing and middleware, security and privacy, and social computing.

"In addition to its 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," added *TIOT* Co-

Editor-in-Chief Gian Pietro Picco, University of Trento. "We also especially welcome experience reports about the use or adaptation of known systems and techniques in real-world applications. Researchers and practitioners are very interested in insights that they can put into practice in their day-to-day work."

The premiere issue of *TIOT* reflects the futuristic innovations already woven into the fabric of the Internet of Things, as well as the editors' goals for the publication to reflect a broad scope and rigorous experimental validation. The first issue includes articles on kinetic-powered wearables, smart lights, authentication, gait recognition technology and research on IoT architecture.

"ACM has always been on the leading edge of providing the field with the most comprehensive publications on emerging technologies, and *TIOT* is no exception," added ACM Director of Publications Scott Delman. "Although the emergence of the Internet of Things is a relatively recent phenomenon, it is shaping the computing field and daily life in profound ways. We thank our Co-Editors-in-Chief Schahram Dustdar and Gian Pietro Picco for establishing an editorial vision for the publication that captures the complexity of the IoT, and for assembling a superb team of associate editors. We believe *TIOT* will be the gold standard for research publications chronicling the Internet of Things."

In addition to Co-Editors-in-Chief Dustdar and Picco, the *TIOT* editorial board includes 22 associate editors representing academia and industry, drawn from countries around the world, including Australia, Austria, China, France, Germany, Italy, Singapore, Sweden, Switzerland, the UK and the USA.

About ACM

ACM, the Association for Computing Machinery, is the world's largest educational and scientific computing society, uniting computing educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

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