

IoT BDS 2024

9th International Conference on Internet of Things,
Big Data and Security

Final Program and Book of Abstracts

28 - 30 April, 2024

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IoT BDS 2024

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9th International Conference on Internet of Things, Big Data and
Security

Angers - France
April 28 - 30, 2024

Sponsored by

INSTICC - Institute for Systems and Technologies of Information, Control and Communication

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Foreword

This book contains the abstracts and final program of the 9th International Conference on the Internet of Things, Big Data and Security (IoTbDS 2024). This year, IoTbDS was held in Angers, France, from April 28 - 30, 2024. It was sponsored by the Institute for Systems and Technologies of Information, Control and Communication (INSTICC).

The Internet of Things (IoT) is a platform that allows a network of devices (sensors, smart meters, etc.) to communicate, analyze data and process information collaboratively in the service of individuals or organizations'. The IoT network can generate large amounts of data in a variety of formats and use different protocols, which can be stored and processed in the cloud. The conference looks to address the issues surrounding IoT devices, their interconnectedness and the services they may offer, including efficient, effective and secure analysis of the data IoT produces using machine learning and other advanced techniques, models and tools, and issues of security, privacy and trust that will emerge as IoT technologies mature and become part of our everyday lives.

Big Data (BD) has core values of volume, velocity, variety and veracity. After collecting much data from IoT, BD can be jointly used with machine learning, AI, statistical and other advanced techniques, models and methods, which can create value for people and organizations adopting it, since forecasting, deep analysis and analytics can help identify weaknesses and make improvements based on different analysis.

Maintaining a high level of security and privacy for data in IoT is crucial, and we welcome recommendations, solutions, demonstrations and best practices for all forms of security and privacy for IoT and BD.

IoTbDS 2024 received 51 paper submissions from 22 countries of which 20% were accepted and published as full papers. A double-blind paper review was performed for each submission by at least 2 but usually 3 or more members of the International Program Committee, which is composed of established researchers and domain experts.

The high quality of the IoTbDS 2024 program is enhanced by the keynote lecture delivered by distinguished speakers who are renowned experts in their fields: Luigi Atzori (Università degli Studi di Cagliari, Italy), Patrick Hung (Faculty of Business and IT, Ontario Tech University, Canada), Matthieu Deboeuf Rouchon (Capgemini Engineering, France) and Samuel Fosso Wamba (Toulouse Business School, France).

The conference is complemented by a Workshop on Collaborative EU Research Projects, chaired by Victor Chang and Jia-Chun Lin.

All presented papers will be available at the SCITEPRESS Digital Library and will be submitted for evaluation for indexing by SCOPUS, Google Scholar, The DBLP Computer Science Bibliography, Semantic Scholar, Engineering Index and Web of Science / Conference Proceedings Citation Index.

As recognition for the best contributions, several awards based on the combined marks of paper reviewing, as assessed by the Program Committee, and the quality of the presentation, as assessed by session chairs at the conference venue, are conferred at the closing session of the conference.

A shortlist of papers presented at the conference will be selected for publication of extended and revised versions in the special issues of the Springer Nature Computer Science Journal, Journal of Global Information Management, Big Data Journal and Internet of Things.

The program for this conference required the dedicated effort of many people. Firstly, we must thank the authors, whose research efforts are herewith recorded. Next, we thank the members of the Program Committee and the auxiliary reviewers for their diligent and professional reviewing. We would also like to deeply thank the invited speakers for their invaluable contribution and for taking the time to prepare their talks. Finally, a word of appreciation for the hard work of the INSTICC team; organizing a conference of this level is a task that can only be achieved by the collaborative effort of a dedicated and highly capable team.

We wish you all an exciting and inspiring conference. We hope to have contributed to the development of our research community, and we look forward to having additional research results presented at the next edition of IoTbDS, details of which are available at <https://iotbds.scitevents.org>.

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Andreas Jacobsson, Malmö University, Sweden

Victor Chang, Department of Operations and Information Management, Aston Business School, Aston University, United Kingdom