

# Guest Editorial

## Special Issue on Artificial Intelligence-Based Sensors for Next Generation IoT Applications

**T**HE path towards next-generation IoT is fundamentally characterized by artificial intelligence-based sensors. However, there are still some open issues, such as efficiency, accuracy, privacy, data trustworthiness, quality etc., that need to be addressed. Therefore, this special issue aims to solicit original papers to solve these issues. Finally, some excellent papers are selected in this special issue from about 160 submissions. Due to the limitation of the editorial space, only 3 papers will be introduced here.

In [A1], Ma *et al.* took the intelligent transportation sensor network as an example and proposed a blockchain-based Internet of Vehicles (IoV) data secure sharing scheme, which implements automatic registration, rapid authentication, and reliable sharing method of IoV data through smart contract.

In [A2], Khuntia and Hazra proposed a novel downlink resource sharing strategy for IoT, where multiple D2D users (D2Ds) share the resource of a single cellular user (CU), and each D2D pair reuses multiple channels from different cellular users (CUs).

In [A3], Osifeko *et al.* proposed a cooperative IoT surveillance system that allows for resource sharing between surveillance sites under the control of a cooperator node. Its performance is better than that of the state-of-the-art methods.

We would like to thank all the authors and reviewers. We would also like to extend our sincere thanks to the Editor-in-Chief, Sandro Carrara, Associate Editor-in-Chief, Gerald Gerlach, and Leigh Ann Testa, for their support in the publication of this special issue.

### APPENDIX: RELATED ARTICLES

- [A1] Z. Ma, L. Wang, and W. Zhao, "Blockchain-driven trusted data sharing with privacy-protection in IoT sensor network," *IEEE Sensors J.*, vol. 21, no. 22, Nov. 2021.
- [A2] P. Khuntia and R. Hazra, "An efficient channel and power allocation scheme for D2D enabled cellular communication system: An IoT application," *IEEE Sensors J.*, vol. 21, no. 22, Nov. 2021.
- [A3] M. O. Osifeko, G. P. Hancke, and A. M. Abu-Mahfouz, "Surveil-Net: A lightweight anomaly detection system for cooperative IoT surveillance networks," *IEEE Sensors J.*, vol. 21, no. 22, Nov. 2021.

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