

IEEE Transactions on Consumer Electronics

Call for Papers

Special Section on “Multimedia Sensing and Computing for Consumer Electronics”

Theme:

Consumer electronics are electronic equipment intended for everyday use, and they constitute a part of the wider electronics industry including devices and services used for entertainment, communications and recreation. In practice, consumer electronics use digital technologies to enhance performance and well-being in real-world applications, such as traffic surveillance elements, online retailing, automatic driving systems, fashion and apparel industry, et al., where the information in these applications usually comes through multimedia data. For example, the videos in traffic surveillance contain both acoustic and visual signals; the online product in online retailing app or website include both image, video, text and even acoustic information; the sensory perceptions typically used in automatic driving system may need extensive multi-media data from multi-channel inputs in visual, auditory and motor pathways. Thereby, how to characterize the property of multimedia data so that it can be managed to enable different learning tasks of various applications in consumer electronics, is of great importance. This requires researchers to develop robust models to classify, retrieve and understand multi-media information in these real-world applications.

Motivated by the above ends, this special issue focuses on cutting-edge techniques to efficiently handle multimedia data/information for sensing and computing for consumer electronics, such as data modeling, multi-media fusion, and computer vision-based solutions for multi-media model in consumer electronics application scenarios. In addition, the aim of this special issue is to establish a platform to researchers from academia and industry institutions to present their theoretical and technological work to exchange scientific ideas, inspire new research work on consumer electronics.

Topics of interest in this Special Section include (but are not limited to):

- Multi-media data control systems with their integration for consumer electronics devices
- Multi-media applications on smart retail, smart grid and smart building for consumer electronics
- Machine learning and deep learning-based computer vision and pattern recognition for consumer electronics
- Multi-sensor data processing and modeling for industrial applications in consumer electronics
- Multi-media data fusion and ensemble learning on virtual reality and metaverse for consumer electronics applications and devices
- Computational intelligence optimization methods on multi-media data model for engineering applications of consumer electronics

Important dates:

- Submissions deadline: November 1, 2022
- Expected publication date: May 2023

Guest Editors:

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Instructions for authors:

Manuscripts should be prepared following guidelines at: <https://ctsoc.ieee.org/publications/ieee-transactions-on-consumer-electronics.html> and must be submitted online following the IEEE Transactions on Consumer Electronics instructions: <https://ctsoc.ieee.org/publications/ieee-transactions-on-consumer-electronics.html>. During submission, the Special Section on “**Multimedia Sensing and Computing for Consumer Electronics**” should be selected.