

IEEE Transactions on Consumer Electronics

Call for Papers

Special Section on “Multimodal Data-Driven Decision-Making for Next-Generation Consumer Electronics”

Theme:

With the development of new-generation information and digitalization technologies, more consumer multimodal data can be collected, and it is time to find a way for the deep application of all these data. Mining and analysing heterogeneous consumer electronic data from multiple sources is a very challenging task. Some of the main issues include: how to represent and summarise multimodal data in a way that exploits the complementarity and redundancy of multiple modalities; how to transform (map) data from one modality to another; identify direct relationships between (sub)elements from two or more different modalities; and combine information from two or more modalities to perform predictions and decisions. While extensive efforts have been made and influenced many aspects of consumer electronics, the complex and unstructured characteristics of multimodal data bring up more challenges. Therefore, the purpose of this special issue is to bring together state-of-the-art research on multimodal computing, discuss and understand the opportunities and emerging challenges, and introduce interesting real-world multimodal data-driven decision-making based consumer applications.

In light of this potential, this special section provides a venue to cover comprehensively algorithms, frameworks, technologies, and applications of multimodal data-driven decision-making for future consumer applications.

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

- Consumer multimodal applications
- Multimodal data generation and sensors for consumer electronics
- Multimodal representation learning for consumer electronics
- Multimodal fusion for consumer electronics
- Multimodal transfer learning for consumer electronics
- Multimodal metric learning for consumer electronics
- Deep learning-based fusion and mining of multimodality data
- Behavior modeling of multimodal data for consumer electronics
- Trust, security, privacy, and fairness in multimodal computing
- Analysis, understanding, and search of consumer multimodal information
- Multimodal platforms, systems, and architecture for consumer applications

Important dates:

- End of submission of Manuscripts: November 30, 2023
- Expected publication date (tentative): 3rd quarter, 2024

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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 **"Multimodal Data-Driven Decision-Making for Next-Generation Consumer Electronics"** should be selected.