

Computer Speech & Language — an Elsevier journal

Speech Processing with Wearable & Multimodal Technologies

Emerging from the HSCMA-CHiME and LRAC workshops and associated challenges, this special issue invites papers addressing speech and audio processing with wearable, multimodal, and egocentric sensing technologies. Such technologies create new challenges and opportunities in designing systems for hands-free speech communication that are robust, adaptive, privacy-aware, resource-efficient, and effective in unconstrained real-world conditions. One part of this broader scope is in focus below.

IN FOCUS Efficient on-device speech processing for real-time communication

- › Low-resource neural speech coding, quantization & model compression
- › Joint speech coding, enhancement & robust transmission for real-time communication
- › Resource-constrained speech processing for wearable, mobile & embedded communication systems
- › Speech quality and intelligibility measures for evaluating neural speech codecs

PART OF A BROAD CALL — 19 TOPICS IN ALL

Also welcoming hands-free communication, microphone arrays & beamforming, speech enhancement & separation, acoustic echo cancellation, recognition & robust representations, synthesis & voice conversion, speaker identification, diarization & localization, voice assistants & conferencing, data augmentation & model adaptation, environmental-noise & cross-dataset robustness, and speech technology for healthcare.

Full topic list on the journal website (QR below).

SUBMISSIONS OPEN

Aug 1, 2026

SUBMISSION DEADLINE

Dec 1, 2026

ACCEPTANCE DEADLINE

Oct 30, 2027



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