

Realtime Meeting Transcript Summarizer (Awaaz AI)

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Abstract: *Awwaz ai is a web-based system designed to address information overload in professional meetings by providing real-time transcription, translation, and abstractive summarization for multilingual conversations (supporting Hindi, Marathi, and English). The system leverages a streaming speech-to-text API for live transcription and a large language model (LLM) for post-meeting analysis, which includes generating concise summaries and extracting key action items. The architecture is built on a Python (FastAPI) backend managing WebSocket connections for audio data and a responsive front-end interface for user interaction. This paper presents the system's design, methodology, and a practical evaluation plan suitable for a final-year engineering project. Key contributions include the integration of a real-time multilingual ASR pipeline with an LLM-based summarization module and a design for a persistent, searchable meeting archive, aiming to enhance productivity and information recall.*

Keywords: real-time transcription, meeting summarization, automatic speech recognition (ASR), large language models, multilingual NLP, WebSockets, FastAPI

