

# AI-Powered Video and Image Processing for Video Meetings

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**Abstract:** *The increasing dependence, on meetings has led to a need for advanced technologies that improve communication and teamwork dynamics swiftly evolving video and image processing technologies backed by AI are reshaping the realm of video conferencing by enabling instant enhancements and enhancing interaction quality and usability This research paper delves into how artificial intelligence is being incorporated into video meetings with a focus on practical uses, like real time background blurring and replacement automatic noise reduction facial expression recognition and participant monitoring In addition, to that we will explore how AI can enhance video quality, compress images and optimize bandwidth. This showcases its ability to decrease delays and enhance video clarity in areas with bandwidth. We will delve into progress in AI algorithms like using learning for recognizing faces utilizing natural language processing, for instant transcription and detecting emotions.*

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