Fraunhofer
IDMT

Fraunhofer Institute for Digital Media Technology IDMT
Division Hearing, Speech an Audio Technology HSA in Oldenburg

i4.0 flatters the ear

The hearable for voice communication and human-machine interaction at industrial workplaces

How about being able to combine crystal clear communication at the noisy workplace, voice control of production machines, hands-free documentation and acoustic monitoring of processes in one device directly in your ears? Our technologies for hearables create the basis for a smooth cooperation of people and machines as a networked team.

Optimal information flow on the shopfloor:

We are working on technological solutions for hearables that work as hearing protection in noisy industrial environments but also support communication between employees at the same time. Intelligent noise selection using AI enables natural communication with optimal intelligibility directly at the machine - and also over larger distances. Through machine learning and the placement of microphones on and in the ear audio- and speech signals are optimized, so that people with a hearing loss benefit from these technologies, too.

Hands free for what´s important:

In combination with our solutions for automatic speech recognition and acoustic event detection, innovative possibilities for human-technology interaction arise. The hearable can be equipped with customizable solutions for voice control and hands free documentation. An acoustic process monitoring, e.g. for the reliable and documented clicking into place of mechanical connections, can be integrated, too.

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Benefits

- Communication with best speech intelligibility even in noisy environments and at great distances
- Combinable with solutions for speech recognition and acoustic event detection
- Local data processing for high data protection

Discover efficient and safe human-machine communcation through innovative hearing, speech and audio technology!

Contact

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