European Commission

Information Society Technologies

Multi-modal and multi-sensor zero-distraction interaction interface for two wheeled vehicles ON the move

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Better information processing for Motorcycle Police Officers

"Because of the limitations of the devices they carry with them today, Police Officers often don't perform to the maximum they can. The project set out to make ordinary operational procedures, like changing a communication channel, quicker and easier, and to maximise the information that an officer can send and receive without being distracted or having to stop the motorcycle". *

A motorcycle Police Officer speeding in response to a call has to process a huge flux of information – driving, navigating, communicating with the command centre and assessing situational risks. New European safety helmets MoveOn® technology answers to the demand and can further track an officer´s moment-to-moment cognitive load and optimise the flow of information accordingly.

Motorcycle Police Officers on the roll provided a case study of the challenges of multi-tasking under high stress and high information processing demands.

Partners

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Thales Communications S.A.
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Enhanced multi-modal control

A speeding motorcycle is a notoriously noisy environment. Despite that, the researchers were determined to provide officers with effective voice control of the MoveOn information interfaces. That required them to develop an enhanced speech recognition system which could identify an officer´s voice commands amidst a welter of noise.

"Our requirements were not for a huge vocabulary, but for a very robust speech recognition algorithm, one that could extract speech from the many, many noises coming from the environment and the motorcycle itself". *

* *Robert Adler, ICT Results 2010*

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