

## **Noise Reduction for Mobiles Can Save Lives**

Though mobile communications have improved emergency services  $\hat{A} \square$  efficiency, noisy environments still pose communication problems for users. ANITA has addressed the issue with a noise-reduction system that could save lives.

(<u>PRWEB</u>) April 14, 2005 -- Developed under the European Commission  $\Box$ s IST programme, the ANITA system uses innovative software to reduce background noise in real time to allow emergency service workers to communicate more clearly with each other and with their headquarters even in the most acoustically challenging conditions.

 $\hat{A} \square$  Fire fighters, for example, have to communicate with engine, road and wind noise while driving, with sirens in the background and with water pumps in operation. All of this can lead to them not being able to understand commands,  $\hat{A} \square$  explains Mirko Masi, the project manager at Tradia in Spain.  $\hat{A} \square$  By filtering out background noise they are able to communicate more effectively, something that in certain circumstances would reduce the hazards for them and could save lives. $\hat{A} \square$ 

The ANITA project partners developed two prototypes of the system, one for use inside vehicles and another for handsets for use on the street. In the first case the system is hardware and software based, employing speakers and a microphone array inside the vehicle to capture and emit the speakers $\hat{A} \square$  voices. In the second, the software is incorporated into the mobile handset.

 $\hat{A} \square$  Though the set up of the two prototypes is different the algorithms are the same. They work by recognising a human speaker  $\hat{A} \square$  s voice and reducing or eliminating other sounds,  $\hat{A} \square$  Masi says.

The system was tested over Tradia $\hat{A} \square$ s two Professional Mobile Radio (PMR) networks TETRA and Tetrapol used by fire fighters, paramedics and police in Catalonia in both laboratory and field trials.

 $\hat{A} \square$  In both the objective and subjective evaluations we saw a significant improvement in the clarity of communications,  $\hat{A} \square$  Masi says.  $\hat{A} \square$  Better communication means emergency services are more efficient and can respond better and faster to emergency situations. $\hat{A} \square$ 

Though designed for use over PMR networks with emergency and security services in mind, the ANITA system could also be employed in other sectors, and even on public mobile systems.

 $\hat{A} \square$  It could be used inside factories, for example, or even for in-car mobile systems using public networks, in fact anywhere where background noise is an issue, $\hat{A} \square$  Masi notes.

Since the end of the project, which was coordinated by EADS, the partners are continuing to develop various components of the system, a commercial variant of which is likely to be launched in the future.

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