Technical University of Lodz
Institute of Electronics

Remote assistance system for the visually impaired

The blind user wears a small device equipped with a miniature camera, a GPS receiver, GSM modem and a headset.

Video and GPS readouts are sent to the remote operator at home or in a call centre. The operator observes the blind user's actions and verbally warns him of any obstacles. Thanks to the GPS technology the operator can guide the blind user to any requested destination.

System components

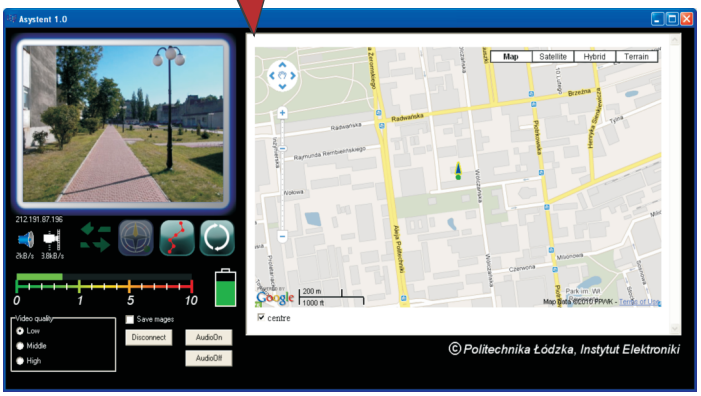
The system consists of two terminals:

- Blind user's terminal: relays the video and GPS data to the operator, enables two-way voice communication,
- Operator's terminal: displays the video from the blind user's camera and his location on a digital map, relays verbal instructions to the guided user.

Current prototype undergoes field trials with participation of blind volunteers.

Applications

- Remote assistance of blind and visually impaired persons
- Possibility of opening a call center specialized in aiding the blind or the elderly
- Navigating persons in unknown terrain: tourists, public servants



Graphical interface of the remote operator's terminal

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