

Automatic test-person operated audiometry

IPR nr. SDU 647-130
University of Southern Denmark

Technical Field

Health
Medico-technical
Electronic measuring instruments
IT (software)

Business Opportunity

Licensing
Investment
Partnership

Current State of technology

The system is ready to use, but the system is being corrected to provide a more user friendly computer interface.

Applications

Can be used both at hearing clinics, schools and in industry, e.g. as part of hearing conservation programs.

The Technology

The invented software gives ordinary people the possibility to make a reliable hearing test (audiometry). The system uses a computer and a tone generator to produce tones for the test person.

The test person responds according to signals presented on a computer screen. There is no need for controlling people while they test their own hearing as the system uses built in controls, which will correct the test persons with a poorer compliance with the testing system.

The present invention will also control the quality of the hearing test. This will greatly minimize both false positive and false negative answers. The advantage is that more than 95% of the tests are of such good quality, that they can be used clinically.

Product Advantages

The advantage of the present system is that hearing tests can be conducted completely independently of a technically skilled person, who is normally required to conduct the audiometry. It is possible to make several hearing tests in parallel if multiple hearing tests is required.

Moreover, the present invention will lower the operator related bias, as the computer conducts the audiometry in the same way every time.

Intellectual Property Rights

IPRs are owned by the University of southern Denmark.

US Provisional patent application has been filed 2009



The Inventors

Jesper Hvass Schmidt, Ph.d.
Clinical Institute, Odense University Hospital

Activities:

2008: Started a Ph.D. about hearing loss in professional musicians.
2006: Started formal specialisation in Oto-Rhino-Laryngology.
2004: Residency in Oto-Rhino-laryngology
2002. M.D. From University of Southern Denmark



Christian Brandt, Ph.d. student
Institute of Biology, University of Southern Denmark

Activities:

2007: PhD student in neurobiology.
2006: Teacher in "Audiological measurement methods" at SDU
2005: Software developer at SDU. Working on 3D positioning of bats from acoustic cues.
2005: Research assistant at SDU.
2005: Master of science from SDU.



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