Bluetooth Baby

Checking the heart of the unborn baby usually involves a stethoscope. However, an inexpensive and accurate Bluetooth fetal heart rate monitoring system has now been developed by researchers in India for long-term home care. Details are reported in a forthcoming issue of the *International Journal of Computers in Healthcare*.

Vijay Chourasia of the LNM Institute of Information Technology in Jaipur and Anil Kumar Tiwari of the Indian Institute of Technology Rajasthan, in Jodhpur, explain how fetal phonocardiography is the modern equivalent of the stethoscope in ante-natal baby care. The team has now adapted this system to be Bluetooth enabled so that fetal heart monitoring can be carried out without repeated intervention and allow data to be analyzed by a personal computer and accessed by healthcare professionals.

The researchers have tested their system on the babies of 33 women at different stages of gestation and compared the data with that obtained by the ultrasound-based Doppler shift technique. The Bluetooth system shows a very high level of accuracy in comparison, 98 percent.

The team points out that using Bluetooth avoids messy cables and the system has a low power consumption, both of which make it portable and easy for mothers-to-be to use without hindrance. Phonocardiography is entirely non-invasive and emits no ultrasound or other energy and so is entirely safe. It should be perfectly amenable to detecting anomalous heart problems at low cost.

Inderscience Publishers [1]

Posted by Janine E. Mooney, Editor

May 23, 2012

Source URL (retrieved on *03/11/2014 - 4:34am*):
http://www.wirelessdesignmag.com/news/2012/05/bluetooth-baby

Links:
[1] http://www.inderscience.com/