

Bluetooth baby

May 17 2012

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.

More information: "Wireless data acquisition system for fetal phonocardiographic signals using Bluetooth" in *Int. J. Computers in Healthcare*, 2012, 1, 240-253

Provided by Inderscience Publishers

Citation: Bluetooth baby (2012, May 17) retrieved 5 May 2024 from <https://phys.org/news/2012-05-bluetooth-baby.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.