# Health monitoring? There's an app for that

March 9 2012

Researchers in New Zealand have developed a prototype Bluetooth-enabled medical monitoring device that can be connected wirelessly to your smart phone and keep track of various physiological parameters, such as body temperature, heart rate, blood pressure and movements. The prototype could be extended to include sensors for other factors such as blood glucose as well as markers for specific diseases. The connectivity would allow patients to send data directly to their healthcare provider and receive timely advice and medication suggestions.

Writing in the *International Journal of Intelligent Systems Technologies and Applications*, Helen Zhou and Tim Roberts of the School of Electrical Engineering at Manukau Institute of Technology explain how they have developed a microcontroller-based personal health monitoring unit that can carry medical sensors and a positioning device. The unit can connect to other devices via the short-range wireless networking system known as Bluetooth and so could be readily connected to software on a smart mobile phone for health monitoring.

The team adds that the mobile phone can be used as a gateway to further relay patient health data to a remote database via the mobile network for remote diagnoses. "Any medical instructions can be sent back instantly to the mobile users," the team says. "The use of standard development tools makes it possible for patients to easily use everyday mobile devices for their personal health monitoring and assessment anytime anywhere." They add that, "Bluetooth and mobile networks enable wireless communications among mobile users, medical professionals and other healthcare givers in an easy, secure and efficient manner."

The device software is based on the familiar cross-platform Java system and provides user with an easy to use graphical user interface (GUI) on their smart phone that uses the standard navigation buttons on mobile devices.

**More information:** "A wireless approach for personal healthcare on everyday mobile devices" in *Int. J. Intelligent Systems Technologies and Applications*, 2012, 10, 331-341

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