

December 2006

# Mobile Wireless Services and Technologies in Ubiquitous and Embedded Computing: Trends

J. P. Shim  
*Mississippi State University*

Follow this and additional works at: <http://aisel.aisnet.org/amcis2006>

---

## Recommended Citation

Shim, J. P., "Mobile Wireless Services and Technologies in Ubiquitous and Embedded Computing: Trends" (2006). *AMCIS 2006 Proceedings*. 114.  
<http://aisel.aisnet.org/amcis2006/114>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2006 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact [elibrary@aisnet.org](mailto:elibrary@aisnet.org).

# Mobile Wireless Services and Technologies in Ubiquitous and Embedded Computing: Trends

**J. P. Shim**

Mississippi State University

[jshim@cobilan.msstate.edu](mailto:jshim@cobilan.msstate.edu)

There has been a virtual explosion in the ubiquitous and embedded computing industry over the past several decades. Computing technology is moving beyond the personal computers and progressing into devices with embedded technology. The invited panelists will discuss the following ubiquitous and embedded computing topics: 1) Mobile TV: DMB, DVB-H, and Media FLO, 2) Wearable computing, 3) RFID: the first important technology of 21<sup>st</sup> century or spyware?, 4) Current status of wireless mobile in Mexico, and 5) Future directions of wireless.

## **“Mobile TV (Cellelevision): DMB, DVB-H, MediaFLO” by Professor J. P. Shim at Mississippi State University**

Ubiquitous computing in the form of video-on-the-go services has entered the international marketplace in an engaging and affordable way. DMB (digital multimedia broadcasting) is a process of broadcasting multimedia over the internet or satellite. Recently, Qualcomm designed their own system, MediaFLO, in the US to rival the technology of DMB (S-DMB and T-DMB) and DVB-H. The findings from this research will be valuable for mobile TV service and content providers to gain insight into various age groups and their perceptions.

## **“Wearable Computing” by Professor Upkar Varshney at Georgia State University**

Wearable computing is emerging as an area involving the use of computing devices on human body. Examples of wearable devices include watches, smart shirt and clothing, body sensors, and health monitoring devices. These personal devices can be of immense help to their owners in context-awareness, location tracking, augmented reality, and communications.

## **“RFID: The First Important Technology of 21<sup>st</sup> Century or Spyware?” by Professor Sasha DeKleva at DePaul University**

It is reasonable that RFID technology causes privacy concerns, which are in some cases justifiable. However, the passive tags designed as the electronic product codes do not contain any personal information, have poor communication performance, and were intentionally designed to protect the privacy. The cell phones and the toll pass devices offer better opportunities to invade privacy.

## **“Current Status of Wireless Mobile in Mexico” by Professor Ante Salcedo at ITAM**

In Mexico (like other countries in Latin America) the telecommunications industry is one of the market segments with faster economic growth. The wireless mobile has grown outrageously in the last ten years. The market of wireless mobile has two incumbent competing players: America Movil and Telefonica. The infrastructure for mobile communications in Mexico moved from CDMA to GSM, and is evolving into 3G. The emergence of short range wireless networks provides the capability to connect wirelessly, with one single device, to a fixed line, an internet portal and/or a cellular hotspot, to transmit voice, data, and images.

## **“Future Directions of Wireless” by Professor Rob Nickerson at San Francisco State University**

The first decade of the 21st century is the decade of wireless. Mobile phones, Wi-Fi, Bluetooth, and other wireless technologies abound, and mobility is becoming the norm. But what direction will wireless take in the future? This presentation will give a perspective on wireless in the development of information technology and examine potential directions that wireless may take in the future.