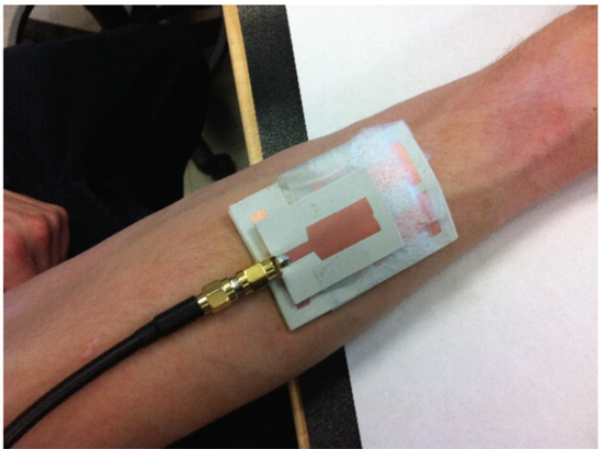
Metasurface Wearable Antenna

ID# 2013-4104



Wearable Medical Sensor

Technology Summary

The field of body area network (BAN) systems is predicted to be a huge market in the near future due to widespread applications ranging from health care, wearable computing, battle field survival, and sports body monitoring. The antenna is a key element of the system, and it significantly affects the overall device performance. This new antenna technology provides a novel approach to achieving a low-profile, conformable, wearable antenna using a metasurface concept for 2.4 GHz body area network applications. While the antenna represents an essential component in any body area network communications system, it has also been the limiting factor due to its large size (especially the ground plane) as well as its low radiation efficiency. This technology removes these limitations and opens the doors to lower-power, more compact, and more practical body area network systems.

Application & Market Utility

The researchers anticipate a wide variety of applications in wearable technology, including (1) wearable medical devices, (2) wearable sports related devices, (3) wearable devices for Internet of Things (IoT) (including smart buildings/cities), (4) wearable computing devices, (5) wearable devices for firefighters and emergency workers, and (6) wearable devices for the military.

Next Steps

Seeking research collaboration and licensing opportunities.

TECHNOLOGY READINESS LEVEL 4-7

Seeking

Investment | Licensing | Research

Keywords

- Wearable Antenna
- Body Area Network
- Military and Medical Research

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