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## Skin Becomes Wire for KAIST Gadgets

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A team of South Korean scientists has developed a technology that uses the human body to transmit electronic signals from digital devices like MP3 players or cell phones to a wireless headset.

The team led by Prof. Yoo Hoi-jun at the Korea Advanced Institute of Science and Technology yesterday said it created a technique that Yoo claimed is the first of its kind in the world.

"The basic idea is that signals of MP3 songs or phone calls can travel from electronic gadgets to headsets through the human skin," the 45-year-old said.

"The human body is an outstanding conductor, roughly 1 million times better than air. Consequently, it can carry electronic signals very well," he said.

The hitch is that the electronic device has to be in contact with the skin for transmissions to take place. It has to be held with bare hands or attached to some part of the body.

Critics also question whether the new technology could harm people because of the electromagnetic fields emitted

during signal transmissions.

However, Yoo said such concerns are overblown since the flow of electricity is negligible.

"The electric current needed in this technology is so feeble that its associated electromagnetic field is even weaker than that found in the air in nature," Yoo said.

In addition, he contended the newly developed technology is better than Bluetooth, a similar technology, in many respects: low power consumption, a cheap price, noise-free quality and resistance to wire-tapping.

Bluetooth technology also allows people to talk on cell phones with cordless headsets, but it uses airwaves and is thought to be vulnerable to wiretapping as well as being expensive.

Bluetooth-capable headsets typically sell for more than \$100 and cell phones embedded with the application are more pricey than ordinary models.

"We aim to make headsets based on human body communication at less than \$5 a unit. As this technology is very simple, we expect it will be commercialized in a year," he said.

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