

New wireless technology to be developed

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A U.S. research team has been awarded a \$3.5 million government grant to develop a new portable wireless communications technology.

Georgia Institute of Technology researchers will use tiny, power-saving analog chips to develop portable communications technology capable of scanning a broad range of radio-frequency bands for open channels.

The principal investigator, Farrokh Ayazi, co-director of the Georgia Electronic Design Center, said the analog spectral processors will be designed for such uses as aiding battlefield communication and enabling cellular phones to find less-crowded frequencies.

"The project's goal is basically to create a small, low-power handheld device that combines a spectrum analyzer and a truly powerful communication device," said Ayazi, a Georgia Tech associate professor of electrical and computer engineering. "We are basically looking for orders-of-magnitude improvement in performance, size and cost.

"The ultimate goal," he added, "is to integrate ASP's with high-speed electronics on a single chip and bring unprecedented capabilities to the wireless world."

Other U.S. Defense Advanced Research Projects Agency-funded teams -- including scientists from Stanford and Cornell universities, and the universities of San Diego, California-Berkeley and Pennsylvania -- are working on similar projects.

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