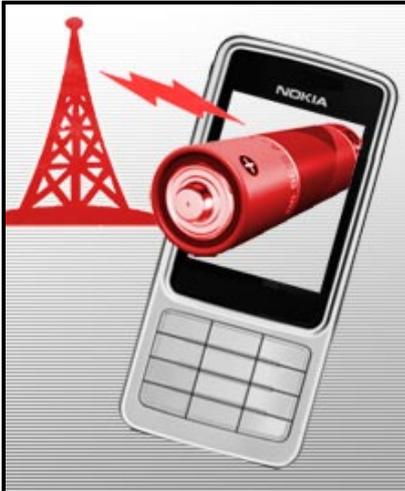


Wireless Power Harvesting for Cell Phones

Editor's Note: This is the kind of broadcast power utilization we really could use. Stray RF energy abounds, it would be nice if we could find a way to harness it.



(Technology Review) - A cell phone that never needs recharging might sound too good to be true, but Nokia says it's developing technology that could draw enough power from ambient radio waves to keep a cell-phone handset topped up.

Ambient electromagnetic radiation--emitted from Wi-Fi transmitters, cell-phone antennas, TV masts, and other sources--could be converted into enough electrical current to keep a battery topped up, says Markku Rouvala, a researcher from the Nokia Research Centre, in Cambridge, U.K.

Rouvala says that his group is working towards a prototype that could harvest up to 50 milliwatts of power--enough to slowly recharge a phone that is switched off. He says current prototypes can harvest 3 to 5 milliwatts.

The Nokia device will work on the same principles as a crystal radio set or radio frequency identification (RFID) tag: by

Most Popular on ECNmag.com:

- [FTC shuts allegedly rogue Internet provider](#) [2]
- [Why Our Amazing Science-Fiction Future Fizzled](#) [3]
- [Fatal Friday For Analog TV](#) [4]
- [Scientists Create Metal that Pumps Liquid Uphill](#) [5]
- [Yahoo Sues NFL Players Association Over Data](#) [6]
- [Electric Car Targets Sensible Folk](#) [7]
- [Most Unaware of Coming Web Domain Changes](#) [8]
- [Free-Web Pirate Party Captures](#)

Wireless Power Harvesting for Cell Phones

Published on Electronic Component News (<http://www.ecnmag.com>)

converting electromagnetic waves into an electrical signal. This requires two passive circuits. "Even if you are only getting microwatts, you can still harvest energy, provided your circuit is not using more power than it's receiving," Rouvala says.

[Click Here](#) [1] for the rest of the story.

[Seat in European Parliament](#)

[9]

- [Climate Change Odds Much Worse Than Thought](#)

[10]

- [Mitsubishi unveils \\$47,000 electric car](#)

[11]

Source URL (retrieved on 03/28/2015 - 3:25pm):

<http://www.ecnmag.com/product-releases/2009/06/wireless-power-harvesting-cell-phones>

Links:

[1] <http://www.technologyreview.com/communications/22764/>

[2] <http://www.ecnmag.com/article-FTC-shuts-allegedly-rogue-Internet-provider-060509.aspx>

[3] <http://www.ecnmag.com/blog-Why-Our-Amazing-Science-Fiction-Future-Fizzled-060809.aspx>

[4] <http://www.ecnmag.com/news-Fatal-Friday-For-Analog-TV-061009.aspx>

[5] <http://www.ecnmag.com/news-Scientists-Creat-Metal-that-Pumps-Liquid-Uphill-060409.aspx>

[6] <http://www.ecnmag.com/news-Yahoo-Sues-NFL-Players-Association-Over-Data-060409.aspx>

[7] <http://www.ecnmag.com/blog-Electric-Car-Targets-Sensible-Folk-060809.aspx>

[8] <http://www.ecnmag.com/news-Most-Unaware-of-Coming-Web-Domain-Changes-060909.aspx>

[9] <http://www.ecnmag.com/news-Free-Web-Pirate-Party-Captures-Seat-in-European-Parliament-060909.aspx>

[10] <http://www.ecnmag.com/blog-Climate-Change-Odds-Much-Worse-Than-Thought-060809.aspx>

[11] <http://www.ecnmag.com/article-Mitsubishi-unveils-electric-car-060509.aspx>