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MOBILE DATABASE · PROJECT

# PERSONAL ENVIRONMENTAL IMPACT REPORT

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| **Author / organisation** | Environmental Protection |
| **Year recorded** | 2008 |
| **Region** | Americas · United States |
| **Category** | Conservation |
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| **Archive page** | kiwanja.net/mobile-database/personal-environmental-impact-report/ |

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Ken Banks offers coaching, mentoring and strategy support.

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Sustainability

# Researchers Create Personal Footprint Reports Using Cell Phones

June 27, 2008

University of California-Los Angeles researchers unveiled a new tool to help people understand their relationship with the environment. The Personal Environmental Impact Report (PEIR) (http://peir.cens.ucla.edu/) lets users see online how their daily choices affect the environment and how the environment affects them, by providing personalized, daily estimates of measures like particulate matter exposure on roadways and carbon emissions due to driving.

PEIR was developed by the Center for Embedded Networked Sensing (CENS) at the UCLA Henry Samueli School of Engineering and Applied Science in collaboration with the Nokia Research Center, Palo Alto.

PEIR estimates impact and exposure using the actual travel patterns of its users, as uploaded from their global positioning system-equipped mobile phones. Accepted scientific models, like the California Air Resources Board's Emissions FACtors (EMFAC) vehicle emissions and Southern California Association of Governments traffic models, are used to calculate estimates specific to the user's travel. On the PEIR site, users can compare values for different trips and see how lifestyle changes affect their impact and exposure. They also can compare their averages with other PEIR participants in their Facebook social network.

By employing only the increasingly common location-sensing capabilities of modern phones, CENS wants PEIR and projects like it to work on the devices that people already own and use. The project is part of the CENS urban and participatory sensing research program, which aims to make everyday mobile phones act as sensors and collect data for their owners. Applications for participatory sensing range from community "case-making" to systems like PEIR, which promote personal engagement and reflection.

The PEIR site is currently accepting inquiries from people who would like to join its beta testing in late summer. CENS recently released an explanatory video on the participatory sensing concept, available at: http://youtube.com/user/CENSVideo.

## FEATURED



### New York Offers $225 Million in Grants for Water Projects That Support Housing

Rural municipalities have a separate $50 million pool, and grants will be awarded first come, first served until the money is gone.



### NOAA Study Links Deep Gulf Marine Life Declines to Deepwater Horizon Spill

Study authors suggest the Deepwater Horizon oil spill as the likeliest cause of losses among fish, krill and cephalopods, and the team ruled out marine heatwaves, hypoxia and food supply limits.



### Federal Agreement Lays Out Cleanup Steps for Michigan Groundwater Plume

Gelman Sciences will remove contaminated soil, pump and treat more groundwater, add monitoring wells and help community groups hire an independent technical advisor.