

# External Awards

## **CEATEC JAPAN 2012 Innovation Awards As Selected by U.S. Journalists GrandPrix**

**Winners:** NTT DOCOMO, Inc.

**Date:** October 4, 2012

**Organization:** CEATEC JAPAN

For “translator Appli”.

[http://www.ceatec.com/2012/en/event/event05\\_02\\_02.html](http://www.ceatec.com/2012/en/event/event05_02_02.html)

## **The 18th Asia-Pacific Conference on Communications (APCC 2012)**

### **Best Paper Awards**

**Winners:** Hiromasa Fujii, Shunji Miura, and Hidetoshi Kayama, NTT DOCOMO, Inc. Research Laboratories

**Date:** October 16, 2012

**Organization:** APCC

For “Novel cognitive radio technique for using white space in public cellular networks”.

In this study, we investigate the potential of cognitive radio systems (CRSs) with the aim of using the white space (WS) in public cellular networks (PCNs). We first clarify the difficulties specific to PCN WS usage and propose a CRS technique with a Cognitive-radio Supportive Accommodation System (CSAS) as a scheme to overcome the difficulties. The main concept of the scheme is that CSAS, which is the primary system that owns the frequency band, agrees to support CRS functions required for spectrum sharing. The spectrum sharing scheme is designed on the PCN signal formats so as to suppress inter-system control signal overheads. We outline the prototype devices equipped with the proposed scheme and present some initial evaluation results obtained on an indoor testbed composed of the prototype devices.

**Published as:** H. Fujii, S. Miura, and H. Kayama, “Novel cognitive radio technique for using white space in public cellular networks,” Proc. of the 18th Asia-Pacific Conference on Communications

(APCC 2012), pp. 266–271, Jeju, Korea.

### **Best Paper Award**

**Winners:** Yuki Kurauchi, Toshio Uchiyama, and Tadasu Uchiyama, NTT Service Evolution Laboratories

**Date:** November 21, 2012

**Organization:** WebDB Forum

For “Inferring user profiles in social networks using Markov random field” (in Japanese).

If user profiles in social networks are estimated, we can analyze users’ postings in each profile and utilize the profiles for marketing. Studies have been done on inferring user profiles from their content, but there is still room for improving accuracy. Thus, we advance the studies by combining this idea with the knowledge that social neighbors tend to share traits with each other. We propose a method of inferring true user profiles by modeling user profiles in social graphs using a Markov random field. In our evaluations, the proposed method removed 54% of artificial noise in the inferred psychographic profiles and improved 9.1% points of accuracy in the inferred demographic profiles.

<http://db-event.jpn.org/webdbf2012/award.html> (in Japanese).

## **FY2012 Industrial Standardization Awards, Industrial Science and Technology Policy and Environment Bureau Director-General’s Awards**

**Winner:** Yoshiaki Tarusawa, NTT DOCOMO, Inc. Research Laboratories

**Date:** December 15, 2012

**Organization:** Ministry of Economy, Trade and Industry

For contributions to supporting international standardization activities in various ways.

[http://www.meti.go.jp/english/press/2012/1012\\_01.html](http://www.meti.go.jp/english/press/2012/1012_01.html)