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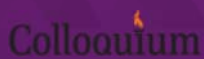☑ Full Site   ☐ Digital Library   Advanced Search (/web/search)

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IEEE Transactions on Mobile Computing (TMC) is a scholarly archival journal published monthly that focuses on the key technical issues related to Mobile Computing. It is the intent of *TMC* to publish mature works of research, typically those that have appeared in part in conferences. Furthermore, it is the intent of *TMC* to focus on issues at the link-layer and above in wireless communications, and to focus only on topics explicitly or plausibly related to mobile systems. Read the full scope of TMC (/web/tmc/about)
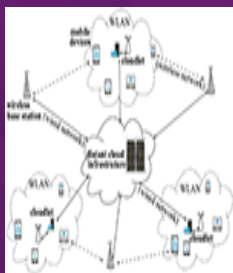
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From the November 2016 issue

We Can Hear You with Wi-Fi!

By Guanhua Wang, Yongpan Zou, Zimu Zhou, Kaishun Wu, and Lionel M. Ni

Recent literature advances Wi-Fi signals to "see" people's motions and locations. This paper asks the following question: Can Wi-Fi "hear" our talks? We present WiHear, which enables Wi-Fi signals to "hear" our talks without deploying any devices. To achieve this, WiHear needs to detect and analyze fine-grained radio reflections from mouth movements. WiHear solves this micro-movement detection problem by introducing Mouth Motion Profile that leverages partial multipath effects and wavelet packet transformation. Since Wi-Fi signals do not require line-of-sight, WiHear can "hear" people talks within the radio range. Further, WiHear can simultaneously "hear" multiple people's talks leveraging MIMO technology. We implement WiHear on both USRP N210 platform and commercial Wi-Fi infrastructure. Results show that within our pre-defined vocabulary, WiHear can achieve detection accuracy of 91 percent on average for single individual speaking no more than six words and up to 74 percent for no more than three people talking simultaneously. Moreover, the detection accuracy can be further improved by deploying multiple receivers from different angles.

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Editorials and Announcements

Announcements

- We are pleased to announce that Marwan Krunz, the Kenneth VonBehren Endowed Professor in the Department of Electrical and Computer Engineering at the University of Arizona, USA, has been named the new Editor-in-Chief of the *IEEE Transactions on Mobile Computing* starting in 2017.
- According to Thomson Reuters' 2013 Journal Citation Report, *TMC* has an impact factor of 2.912.
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Editorials

- EIC Editorial (May 2015) (https://www.computer.org/csdl/trans/tm/2015/05/07065388.pdf)
- State of the Journal (Feb 2015) (https://www.computer.org/csdl/trans/tm/2015/02/06994341.pdf)
- EIC Editorial (July 2014) (https://www.computer.org/csdl/trans/tm/2014/07/06845394.pdf)
- A Message from the Outgoing Editor-in-Chief and Associate Editor-in-Chief (Jan 2014) (https://www.computer.org/csdl/trans/tm/2014/01/ttm2014010001.html)
- Editorial: Reviewer Appreciation Program (Aug 2013) (https://www.computer.org/csdl/trans/tm/2013/08/ttm2013081469-abs.html)
- Editorial and Changes to the Editorial Board (Jan 2012) (https://www.computer.org/csdl/trans/tm/2012/01/ttm2012010001.html)

Reviewers List

- 2015 Reviewers List (PDF) (https://www.computer.org/csdl/trans/tm/2016/01/07343759.pdf)

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- 2015 Annual Index (PDF) (https://www.computer.org/csdl/trans/tm/2016/01/07343771.pdf)

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Listen to the OnlinePlus podcast: Computer Society Publishing—two more titles migrate to OnlinePlus^T   in 2012.

In this podcast, VP of Publications, David Alan Grier talks about *Transactions on Mobile Computing* and *Transactions on Parallel and Distributed Systems* migrating to OnlinePlus^T   (/web/publications/online-plus).

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