



# Orange County ACM SIGCHI

Monthly meeting

October 16, 2003, 5:00-7:00 PM

Held at FileNET in Costa Mesa

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## **Talk: Aerial Acoustic Communications - Digital Voices**

OCCHI is proud to present Crista Lopes, an Assistant Professor in the Department of Informatics. A founder of the team that started Aspect-Oriented Programming (AOP), she co-founded the Laboratory for Ubiquitous Computing at UCI (LUCI). Christa will present her work on "air modems."

Aerial acoustic communications are remarkably successful in biological systems, most notably in humans, but they have been ignored or dismissed in computer networks. There are good reasons for this: the data rates are relatively low when compared to other media and the sounds tend to be annoying. But as computers get more ubiquitous, and as more and more devices support a channel for voice or music, sound becomes a cheap, secure and intuitive alternative for transferring small amounts of information among devices that happen to be near each other.

As any other modems, the design of these "air modems" must account for factors such as the data rate, the error probability and the computational overhead at the receiver. On top of that, these modems must also account for aesthetic and psychoacoustic factors. Christa will show how to vary certain parameters in standard modulation techniques such as ASK, FSK and Spread-Spectrum to obtain communication systems in which the messages are musical and other familiar sounds, rather than modem sounds. Some applications of this technology will be discussed and demonstrated.

**The meeting is free and open to anyone.**

To RSVP, send email to Chris Jensen at [acm\\_occhi2002@yahoo.com](mailto:acm_occhi2002@yahoo.com)

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### **FileNET**

3545 Harbor Blvd  
Costa Mesa, CA

Driving instructions on the back

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*All guests will be checked in and out with security.*



## OCCHI

OCCHI has monthly gatherings offering presentations, panels, and demonstrations. Anyone is welcome to join. Membership in any other organization, national ACM or national SIGCHI, is **not** required. Current members include a wide variety of professionals with a common interest in human-computer interaction. They are interface designers, graphic designers, usability engineers, research scientists, psychologists, technical writers and software engineers. They work in large and small companies and universities. They are students, professors, independent consultants, and corporate employees. To become a member, visit our web sit at [http://groups.yahoo.com/group/OC\\_CHI/](http://groups.yahoo.com/group/OC_CHI/) and subscribe.

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### **Directions to FileNET**

3545 Harbor Blvd  
Costa Mesa, CA

#### **Directions from UCI:**

Take 73 North, 405 North, exit Harbor Blvd,  
Turn Right on Harbor,  
Turn Left on Scenic (the street has a different name on the right),  
Turn left into the first parking lot,  
Building #3545 Harbor Blvd, room Carnegie Hall, HTB, #1815

#### **Directions from the South:**

Take 405 North, following previous directions  
Exit Harbor Blvd,  
Turn Right on Harbor,  
Turn Left on Scenic (the street has a different name on the right),  
Turn left into the first parking lot,  
Building #3545 Harbor Blvd, room Carnegie Hall, HTB, #1815

#### **Directions from the North:**

Take 405 South, exit Harbor Blvd,  
Turn Left on Harbor,  
Turn Left on Scenic (the street has a different name on the right),  
Turn left into the first parking lot,  
Building #3545 Harbor Blvd, room Carnegie Hall, HTB, #1815

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