

The Electrical and Computer Engineering Program presents

Signal Processing Research at Bilkent University

Prof. A. Enis Cetin Bilkent University, Ankara, Turkey

Sunday, 28 Nov. 2010, 12–1 p.m. Lecture Hall 144

light lunch will be served

My research group at Bilkent University consists of more than 10 M.Sc. and Ph.D. students and a post-doc. We carry out research in the following areas:

- Digital Media Processing,
- Signal Processing for Environment Protection, and
- Signal Processing for Food Safety Applications and Microscopic Image Processing.

In this talk, after a brief description of our research activities in above areas, I will focus on (pyroelectric infrared) PIR sensor based volatile organic compound (VOC) detection and flame detection. Moving objects and flames emit IR radiation. PIR sensors can detect IR radiation or absorption; therefore they generate time-varying signals for moving objects, VOC compounds and flames. We model PIR sensor signals using Markov models and try to identify the source of IR radiation or absorption using Markov models.

This work is funded by European Commission FP7 Project: FIRESENSE.



A. Enis Cetin

A. Enis Cetin got his Ph.D. degree from the University of Pennsylvania in 1987. Between 1987-1989, he was Assistant Professor of Electrical Engineering at the University of Toronto. He has been with Bilkent University, Ankara, Turkey, since 1989. He spent 1996-1997 academic year at the University of Minnesota, and 2009-2010 academic year at Ryerson University, Toronto, Canada, as a visiting professor.

Prof. Cetin is a fellow of IEEE and a senior member of EURASIP. He was an Associate Editor of the IEEE Trans. on Image Processing between 1999-2003. Currently, he is on the editorial boards of journals Signal Processing, Journal of Advances in Signal Processing (EURASIP), and Journal of Machine Vision and Applications (IAPR), Springer. He is a member of the DSP technical committee of the IEEE Circuits and Systems Society and the SPTM committee of IEEE SP Society.

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