



**UNIVERSITY OF CENTRAL FLORIDA**  
CENTER FOR RESEARCH IN COMPUTER VISION

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**“Video Synopsis”**  
**Thursday, January 30, 2014 · 2:00PM · HEC 101**



### ABSTRACT

Surveillance video is practically never used, as there are too many hours of surveillance video for people to watch. Most attempts to deal with the overflow of surveillance video involve the development of automatic video understanding: object recognition and activity understanding.

Video Synopsis is complementary to video understanding. After objects are detected video synopsis changes the time of display of each object such that more objects are "packed" into a shorter time. The resulting video is a shorter summary of the original video, where the objects are shown more densely than in the original video. While video synopsis can reduce, on the average, an hour of video into a minute, the synopsis loses causality: Objects that appear together in the original video may appear at different time in the synopsis, and vice versa. Video synopsis is an excellent tool for browsing video, and also in conjunction with the results of video understanding tools.

### BIOGRAPHY

Shmuel Peleg received his Ph.D. in Computer Science from the University of Maryland in 1979. In 1981 he became a faculty member at the Hebrew University of Jerusalem where he is a Professor of Computer Science. Shmuel served as the first chairman of the Institute of Computer Science at The Hebrew University from 1990 to 1993.

Shmuel published over 140 technical papers in computer vision and image processing, and holds 18 US patents. His technologies provided the technical foundations to several startup companies, among them BriefCam Ltd., creating short summaries of long surveillance video, able to summarize hours of surveillance video in minutes.

Shmuel served as an editor and committee member of numerous international journals and conferences, and recently was a co-general-chair of CVPR 2011, and a program co-chair of ICCP 2013.