

Invention provides quicker, more efficient use of surveillance videos

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Professor Shlomo Peleg of the Hebrew University of Jerusalem invented a system for enabling investigators to view key segments only from many hours of video camera surveillance. Credit: Hebrew University photo by Sasson Tiram

Millions of surveillance cameras around the world are today watching public and private areas around the clock, providing police with a valuable tool for catching perpetrators carrying out criminal acts. Rapid apprehension of the recent attempted Times Square, New York, bomber was a sensational example. However, since video browsing and retrieval in the millions of cameras is time consuming - involving sometimes days or weeks of review -- most recorded video is never watched or examined.

A solution to this problem has been developed at the Hebrew University of Jerusalem -computer software that provides a synopsis of recorded

[video](#), generating a very short video preserving the essential activities of the original video captured over a very long time period. For example, a video covering a full day can be summarized in a synopsis only a few minutes long.

For his work in developing this highly useful [software](#), Prof. Shmuel Peleg of the Hebrew University's Benin School of Computer Science and Engineering has been named a winner of this year's Kaye Innovation Award at the university. The Kaye Awards will be presented on June 9 during the university's Board of Governors meeting in June.

The invention provides a solution even for those who are able to dedicate enough manpower to review long segments of [video surveillance](#) materials, since studies indicate that human operators lose their attention after about 20 minutes when watching such videos.

Video synopsis separates between the static background and the [moving objects](#) (also called events). The short synopsis is made possible by simultaneously presenting multiple events that have occurred at different times. Synopsis user can view all events in a very short time and, when necessary, can revert to the original video for further examination.

Peleg's invention has been patented by Yissum, the technology transfer company of the Hebrew University, and licensed to an Israeli startup company, BriefCam Ltd. On May 10 of this year, BriefCam was awarded the IFSEC-2010 Security Industry Award in the category of "CCTV System Product of the Year." IFSEC - International Fire & Security Exhibition & Conference, is the world's leading global annual security event with over 600 exhibitors and attended by 25,000 security professionals.

The Kaye Innovation Awards have been given annually since 1994. Isaac Kaye of England, a prominent industrialist in the pharmaceutical

industry, established the awards to encourage faculty, staff and students of the Hebrew University to develop innovative methods and inventions with good commercial potential which will benefit the university and society.

Provided by Hebrew University of Jerusalem

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