

## The SIPL Newsletter – Issue 6, July 2015

עדכונים מהמעבדה לעיבוד אותות ותמונות, הפקולטה להנדסת חשמל, הטכניון

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### SIPL Activities

Earlier this month we have celebrated **SIPL's 40th anniversary** with many guests from *SIPL* past and present. In this event we briefly reviewed *SIPL* activities through the years as well as recent and current activities in the lab. Slides and images from this event can be found [here](#) and a video created for this event can be found [here](#).

A new faculty member joins *SIPL*. **Tomer Michaeli** completed his PhD in our department under the supervision of Prof. Yonina Eldar. He performed his Postdoc research in the Weizmann Institute with Prof. Michal Irani. His main research interests are image processing, computer vision, signal processing and machine learning. Here's a link to [his homepage](#).

*SIPL* is participating in the new OMEK consortium (operating under the MAGNET program funded by the government of Israel) that deals with extraction of insights from 3D data. In the first year of the consortium, *Prof. David Malah* and *Dr. Meir Bar-Zohar* will perform research on **point clouds registration for embedded platforms**.

Two *SIPL* students have won the 2<sup>nd</sup> place in the annual contest named after Yehoraz Kasher for undergraduate projects in the department of Electrical Engineering. The students have developed, in collaboration with Rafael, a novel algorithm for **distance estimation of marine vehicles using a monocular camera**.

## Conferences and Events

The Video Analytics and Security Conference & Exhibition will take place October, 28 in Herzliya. More details can be found [here](#).

## Other Signal and Image Processing News (many more in our Facebook page)

Fujitsu's new phone will be the first to contain an iris scanner. More information can be found [here](#).

[A paper](#) published in CVPR 2015 describes an algorithm for "uncropping" an image using a set of internet photos of the same scene. More information can be found [here](#).

Researchers from the University of Washington and from Google developed a technique for synthesizing time-lapse videos from large community photo collections. [A paper describing this technique](#) was published in SIGGRAPH 2015. More information can be found [here](#).

MIT researchers developed a technology that reveals an object's hidden properties based on a small often imperceptible motion in video. They describe their development in a [TED talk](#) and in a [CVPR 2015 paper](#).

An interesting TED talk: [Teaching computers to understand pictures](#).

[A website](#) by Microsoft detects people's age in photos. [Another website](#) by Microsoft gives a similarity score between two faces. These two websites are part of [Microsoft's Project Oxford](#).

Clarifai lets you try the state-of-the-art in image visual recognition based on deep networks [in its webpage](#).

Google researchers have trained deep neural networks on specific image classes (for example, animals) and tested them with other image classes (for example, clouds). The features they got look like a "day dream" on the test images. More information can be found [here](#). You can try it yourself [here](#).

[Google Photo](#) is a new application that allows searching your photos and videos by people, places, events, objects. No auto-tagging is required.

Google's new app can count calories using food photos. More information can be found [here](#).

Google researchers have developed a technique, based on deep networks, that turns street view images into videos. A paper describing this technique can be found [here](#). More information can be found [here](#).

[A paper](#) published in CVPR 2015 describes an algorithm to estimate how fashionable your outfit is and suggests some improvements. More information can be found [here](#).

### SIPL recent industry collaborations



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