

The SIPL Newsletter – Issue 4, January 2015

עדכונים מהמעבדה לעיבוד אותות ותמונות, הפקולטה להנדסת חשמל, הטכניון

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SIPL Activities

Prof. Koby Crammer and SIPL have been involved with LinguisTech during the last year in a MAGNETON (transfer of technology developed in the academy to industry, funded by the Israeli government) in the area of **speech recognition for children**. This activity has just been approved to continue to a second year.

Prof. Israel Cohen has been elected as a "**Fellow of the IEEE** for contributions to the theory and application of speech enhancement".

The paper "**Late Reverberant Spectral Variance Estimation Based on a Statistical Model**", co-authored by *Prof. Israel Cohen*, has been awarded the 2014 SPS Signal Processing Letters Best Paper Award.

Hadas Benisty, a Ph.D. student of *Prof. David Malah* and *Prof. Koby Crammer*, won the IEEE Israel Conference best student paper award for their joint work: "**Sequential Voice Conversion Using Grid-Based Approximation**".

Keyboard musical instruments do not allow shaping the played music with pitch bends. SIPL students have developed a system that **controls pitch bend of a keyboard instrument by the movement of a standard Android device** attached to the player's arm. A video of this project can be found [here](#).

Seminars

Noam Elron will give a seminar: Image Upscaling Using Geometrically-Aligned Local Self-Similarity, Tuesday 27/1, Taub building 337.

Conferences and Events

The Video Analytics and Security Conference in Israel will take place February, 24 in Herzliya. More details can be found [here](#).

The 6th Israel Machine Vision Conference & Exhibition (IMVC 2015) will take place March, 24 in Tel-Aviv. More details can be found [here](#).

Other Signal and Image Processing News

[Rock my Run](#) is an application that syncs music to a runner's pace. It uses signal processing algorithms to calculate the number of steps that the runner is taking using the device sensors as well as algorithms that manipulate the tempo of the music in real time, based on those steps.

ITU approves HEVC second edition. [HEVC](#) (High Efficiency Video Coding) (HEVC) is a video compression standard, a successor to H.264/MPEG-4 AVC, and is considered "the future of video coding". Its second edition includes major extensions - scalable coding, multi-view coding and new profiles.

In papers that are going to be published in the upcoming [CVPR 2015](#) conference, researchers from Google and from Stanford University, in two different works, have presented techniques that use Deep Recurrent Neural Networks to generate sentences that accurately describe scenes shown in photos. Here are the papers: [paper 1](#), [paper 2](#). More information can be found [here](#) and [here](#).

SIPL recent industry collaborations



Comments and suggestions: sipl-newsletter@ee.technion.ac.il