



Yissum Licenses Cutting Edge Technology for Enhanced Digital Image Processing to Adobe Systems

Jerusalem, Israel, April 21, 2010 – Yissum Research Development Company Ltd., the technology transfer arm of the Hebrew University of Jerusalem today announced that it has signed a non-exclusive worldwide licensing agreement with Adobe Systems for the development and commercialization of an imaging technology that improves digital image processing. The technology, invented by Dr. Raanan Fattal from the School of Computer Science and Engineering at the Hebrew University of Jerusalem, is called Edge Avoiding Wavelets and it enables better and faster detail enhancement and preserves edges when sharpening digital images.

Image processing applications invest considerable computing power in attempts to enhance details in digital images, and to enable users to accurately demarcate a specific object within the image. Current state-of-the art technologies for enabling such image processing functions are overly sophisticated and suffer from various limitations. The new Edge Avoiding Wavelets technology is fast and uses explicit computations to obtain results traditionally obtained by implicit formulations requiring sophisticated linear solvers. The new technology avoids pixels from both sides of an edge, thus achieving a sharper, halo-free image. Its fast performance accelerates various computational photography applications by a factor of more than one order of magnitude.

"We are very pleased with the collaboration with Adobe, one of the leading software companies. Image processing has become a household technology, and faster, user-friendly applications are continuously sought for. The new image processing technology invented by Dr. Fattal is exactly such an application, and we believe that it can be extremely valuable also for other image processing software packages," said Yaacov Michlin, CEO of Yissum. "In addition, Hebrew University researchers have been developing a strong and diversified portfolio of innovative imaging technologies including 3D visualization manipulations, real-time pattern matching, colorization of still images and movies and animation techniques, all of which are available for licensing."

"The recent release of Photoshop® CS5 and Photoshop® CS5 Extended is loaded with more innovative new technology than ever before," said Kevin Connor, vice president of product management for professional Digital Imaging at Adobe. "Our customers will certainly benefit from the collaborative relationship between the engineers at Adobe Labs and forward-thinking university researchers like those from the Hebrew University team. This technology has been applied to enhance the Sharpen Tool in Photoshop CS5 and its 'Protect Detail' feature that allows for the best sharpening possible."

Image enhancement with new wavelets



input



output

*Detail enhancement by the new technology. Left image: input picture.
Right image: after enhancement.*

About Yissum

Yissum Research Development Company of the Hebrew University of Jerusalem Ltd. was founded in 1964 to protect and commercialize the Hebrew University's intellectual property. Ranked among the top technology transfer companies in the world, Yissum has registered over 6,100 patents covering 1,750 inventions; has licensed out 480 technologies and has spun-off 65 companies. Yissum's business partners span the globe and include companies such as Novartis, Johnson & Johnson, Roche, Merck, Teva, Intel, IBM, Phillips, Syngenta, Vilmorin, Monsanto and many more. For further information please visit www.yissum.co.il.

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