

# EMVA Young Professional Award 2017 winner Boaz Arad talks about his start-up, HC-Vision

BY NEIL MARTIN

17:41 Nov 28th 2017



We caught up with Boaz Arad, winner of the EMVA Young Professional Award 2017, and asked him about his position as CTO of the start-up company HC-Vision.

Arad won the award for his work "Sparse Recovery of Hyperspectral Signal from Natural RGB Images."

Aged 32, he obtained his Computer Science BSc (cum laude) from Ben-Gurion University of the Negev (BGU) in 2012. Continuing towards a fast-tracked PhD at the BGU Interdisciplinary Computational Vision Laboratory (ICVL), he received an MSc in 2014 and expects to complete his PhD by 2018.

As well as studying, he's a stakeholder in HC-Vision, alongside his fellow co-founder Professor Ben-Shahar. The other stakeholder is the university commercialization company, BGN Technologies.

The HC-Vision proposition is quite clear. As it points out, conventional cameras capture images using only three frequency bands (red, blue, green), but there is

much more information hiding within the visual spectrum. They say that their technology allows conventional cameras to increase their spectral resolution, capturing information over a wide range of wavelengths without the need for specialized equipment or controlled lighting.

*We asked Arad first, what did the winning of the award mean to him?*

He replied: "It was quite exciting to receive this type of recognition for our work and I was pleasantly surprised by the amount of interest the award garnered in both academia and industry. While I've spent the past year expanding my focus from academia to industry with HC-Vision, this award afforded me a unique and fascinating window to the European vision industry. I'm certain that this will result in some interesting collaborations."

*Does he think winning the award will raise the profile of HC Vision?*

"Definitely, our company has already seen a surge in interest. Both investors and potential industry partners have reached out to us following the award announcement."

*Getting onto talking about HC Vision itself, we asked at what stage is the company in its development?*

"At the moment we are operating within the Ben-Gurion University commercialization company, but expect to be spun out as an independent company very soon, perhaps before the years end."

*Is the company looking for external funding?*

"Yes, we are currently looking for investors, as well as industry partners interested in incorporating HC-Vision technology into their products. Since HC-Vision capabilities can be added to existing or future image sensor with little to no hardware modifications and no assembly line retooling, we believe it can provide our partners with a significant technological edge."

*How many people are involved with HC Vision?*

"At this early stage, most our development is handled by the founders, while the university technological transfer company assists us with business development, IP and legal services. So I'd say about 5-10 people, depending on who you'd consider an employee. As part of our move towards full independence, we've already located some promising developers and engineers who are eager to join the HC-Vision team."

*At what stage is the product and do you have customers?*

"At the moment we have a working prototype, and most of the R&D hurdles have been cleared, but some engineering work remains before we can produce a final product for the general market. In the meantime, we are already working with several companies in order to test the performance of our technology when integrated into their systems. While we currently cannot disclose the identity of these companies –

they include some very recognizable names in both consumer electronics and the defense industry."

*What do you hope the product will achieve over the coming years?*

"As our technology provides can provide significant gains in sensor light sensitivity (quantum efficiency) as well as material-sensing capabilities with little added cost to manufacturers – we're really hoping to see it implemented at a large scale. Perhaps as the distinguishing "killer" feature of a flagship cellular device, or professional camera. Once our platform becomes ubiquitous it will allow 3rd party developers to really take advantage of its material sensing capabilities."

*How big is your potential marketplace with the product?*

"The image sensor market is fast approaching the 20 billion dollar mark, with image sensors for mobile devices accounting for about a third of that volume. Since our technology is relevant to nearly any type of image sensor, the potential market is truly huge. Even when we narrow our focus to smartphones or cameras produced by a single company, the production scales range from millions to hundreds of millions of devices per year."

Ben-Gurion University of the Negev is a start-up hotbed that has sprung many successful projects such as MobilEye.

