

## Society for Information Display Ben Sturgeon Award 2005

The Ben Sturgeon Award for 2005 has been won by Graham Woodgate. Graham read physics at Bristol University achieving a first class honours degree in 1987. From here Graham went to Reading University where he did an MSc in Applied & Modern Optics gaining a distinction and picking up the Pilkington Prize for top student in 1988.

Graham began his career as an Optical Engineer at Crosfield Electronics Ltd. working on the development of a novel high productivity 6000dpi scanner for the printing industry.

After three years, he joined the newly set up Sharp Laboratories of Europe (SLE) in Oxford as Principal Researcher within the Imaging Optics Team. This very productive period saw Graham make a major contribution to Sharp's 3D imaging portfolio. This included the invention and development of several autostereoscopic 3D displays and led to Sharp producing the world's first switchable 2D/3D display cell phone. Sharp has gone on to sell 3 million units and the technology is now in laptops and LCD monitor products. In 1998, Graham was promoted to manager of the Novel Projector Technology Group where he led the development of several novel technologies for LCD projectors.



He was responsible for around 20 granted US patents during his tenure at SLE.

In 2001 with Jonathan Harrold, he founded Ocuity Ltd. in Oxford. Originally the company provided high-value technical consultancy services in optical and electronic projects for the electronic displays and fibre-optic telecommunications industries. After a short period Graham and Jonathan began their own internal research programme into new types of optical systems. This led to the invention and demonstration of a new class of optical architectures

suitable for flat-panel displays. This new architecture is called *Polarisation Activated Microlens<sup>TM</sup>*. This technology may be used for brightness enhancement which is particularly important for OLED and transfective displays as well as to produce very high quality, high efficiency, low cost switchable 2D/3D displays. This technology has been protected by a portfolio of 12 patents, the fundamental one of which has now been granted. The technology has recently been licensed to a major manufacturer in Asia to be developed for

production. In addition, the work has also been published at the IDW03 and in IDW04 where it was the recipient of the *SID Outstanding Paper Award*.

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