

WINNER OF THE BEN STURGEON AWARD 2012

The award for 2012 has been won by Dr Ben Broughton of Sharp Laboratories of Europe, Oxford. Ben graduated with a first class Masters degree in Physics from the University of Southampton. He then began PhD studies in the Department of Engineering at the University of Cambridge, undertaking research into the flexoelectro-optic effect in chiral nematic liquid crystals, in the Centre of Molecular Materials for Photonics and Electronics (CMMPE). This work included demonstration of the flexoelectro-optic effect in the standing helix texture under in-plane fields and investigation of the effect of polymer stabilisation on lying helix texture flexoelectro-optic switching.



*Ben receiving his award from Myrddin Jones, Chapter Chair
Photo John Mansell*

He then joined the Optical Imaging and Display Systems Group at Sharp Laboratories of Europe in 2005. There, he has been working on the development of LCD displays with electrically switchable privacy functions. Such devices had been previously commercialised by Sharp Corporation with several mobile phones for the Japanese market, utilising an additional LC switch cell on top of the main display panel to provide monochrome angular viewing attenuation with a fixed image pattern. However, strong commercial pressure for thinner, lighter mobile phones motivated development of an equivalent function with no added display hardware. As a result the 'Colour Veil View' display privacy method, using image processing only and based on the inherent viewing-angle properties of VAN mode LCDs, was developed. This has since been commercialised on an estimated 40 million of Sharp's mobile phones for the Japanese market since 2008, as well as particular models in China, India, Korea and mainland Europe.

Return: <http://www.sid.org/Chapters/uki/UKIBenSturgeonAward.aspx>