

## Ben Sturgeon Award

The Ben Sturgeon Award is offered annually by the UK & Ireland Chapter of SID, for outstanding work by a young scientist in a field related to liquid-crystal display technology. Ben (short for Bennett) was for many years the research director of BDH Ltd, both before and after the company became part of the E. Merck Group. Among many achievements, he was the driving force behind commercialisation of the cyanobiphenyl liquid crystals, then newly discovered by Professor George Gray and his colleagues in collaboration with the displays group at Malvern. His energy, focus and judgement were an inspiration to the younger scientists who worked with him and are commemorated by the award.

The award has been won this year by Dr Mike Brownlow who is the Technical Director of the System Display Group at Sharp Laboratories of Europe in Oxford.

### Nominations next year

The Ben Sturgeon Award sub-committee is now seeking nominations for next year's award. Young scientists or engineers, under the age of 40 are eligible. They must have made significant contributions to the displays field over the past ten years. Ideally, the work for which they are nominated should be in the field of liquid crystals including all aspects of the technologies used in LCDs. However, in exceptional circumstances, nominees from other display areas will be considered. In such a case, the international value of the work must be clearly demonstrated.

Full information concerning the Ben Sturgeon Award and how to make nominations for next year can be found on the SID UK & Ireland Chapter web page ([www.sid.org.uk](http://www.sid.org.uk)).

## Forthcoming Meetings

There will be a two-day meeting on 'OPTICS FOR DISPLAYS' on 6 and 7 April 2005 at Knebworth House, Stevenage. The first day will start with a brief period of time set aside for UK and Ireland Chapter's AGM. It is important that as many members as possible attend the AGM so that they can express their views and ensure the Chapter's activities mirror their requirements. To celebrate the Chapter's 20<sup>th</sup> Anniversary a dinner will be held on the evening of the first day at the Corus Hotel (The Cromwell) in the High Street of Stevenage Old Town at 6.30 for 7.00 PM.

On 25 April, UK and Ireland SID and the 3D Consortium will host a one-day meeting on the emerging topic of 3D display technology. This will be a showcase event where groups from across Europe and Asia, representing all aspects of the 3D chain, will have the opportunity to discuss and demonstrate their technology. The event will be held in the Institute of Physics main conference venue in London (<http://www.76portlandplace.com/>)

### A word from the Chairman continued from p1

Not all your committee's attention has been consumed by the technical meetings. One thing we have been keen on doing for some time is to increase the attractiveness of the chapter's activities to students working in the displays field. As a first step we want to offer student membership at greatly reduced cost, and we have made the necessary checks with the SID central organisation to make sure we can do this without a big financial penalty. We will need an information campaign to inform students of the opportunities and benefits of membership, and need to contact as many university groups as we can to reach our audience. If you can help us to do this, please get in contact with any committee member.



## A WORD FROM THE CHAIRMAN

Ian Sage

I was searching for some PDA software recently, when my eye hit on one of those 'top ten download' lists. I was surprised to see that the top of this particular list was occupied by software which allows the user to view video on a PDA screen and have to confess that that my immediate reaction was pretty dismissive – perhaps even derisive. What came after is predictable. A magazine article made the case that this was no mere daft misapplication of technology and I eventually downloaded a package of (free) software and tried it out. I have to confess that the result is far more usable than I expected: given the limited size and resolution of the display, the quality is quite acceptable and a reasonable length of programme will fit onto an inexpensive flash memory card. Above all, the portability is impressive.

I cannot see myself ever carrying a portable DVD player with me when I travel, but the all solid-state solution is much more reasonable, especially when it fulfils other uses too. It is also much less cumbersome than using a laptop to watch a DVD. Although I will not be abandoning the cinema experience yet, or chucking out the (CRT!) television this little technology demonstration was enough to show the possibilities. Perhaps it will not be long before we are exchanging flash cards at roadside service areas for the entertainment of back seat passengers. Above all, though, the equipment can be small and light enough to carry on your person, rather than being on the back of the seat in front.

Like most technological advances, this one depends on many innovations as well as the high-quality display. Notably, the availability of low cost solid-state memory and improvements to batteries over the last few years have contributed to this one. It irks me a little bit, though, that for all the wizardry going on inside our electronic equipment, the user interface is progressing so slowly. Flat-panel displays are often pointed out as progressing much more slowly than Moore's law would predict, but this is the easy side of things.

Going back to the PDA's more conventional uses, I am presented with a considerable choice of methods for getting information into the beast – all of which seem pretty unsatisfactory. Of course, if there were a good solution, there would be no need for a choice. The problem, evidently, is that a pocket-sized device simply can't accommodate a size of keyboard we can use conveniently. Cursive writing systems and natural handwriting recognition go some way to providing a solution, but for me they are too slow and awkward for protracted input. Even in a quiet place, voice recognition systems have some way to go. In fact, the input method I find myself returning to most often is a stylus and virtual keyboard on the touch-screen display, so even here the display plays a key role. Nevertheless, the issue of information input into our equipment looks to me much more likely to limit applications than getting it out. At least in this area, displays seem to have a good lead.

As you will read elsewhere in this newsletter, the coming few months are going to be busy and exciting ones for the UK and Ireland Chapter. Foremost among the coming events is the Eurodisplay conference with its accompanying exhibition which will be held at the Edinburgh International Conference Centre in September. The call for papers is out now on the SID website at [www.sid.org](http://www.sid.org) so this is your opportunity to present display related work at Europe's premier event. Contact information for companies wishing to take a stand at the exhibition is also on the website.

Continued on P4

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### CONTENTS

A word from the Chairman .....	1
Eurodisplay 2005.....	2
The UK & Ireland Chapter - the first 20 years .....	2
The Ben Sturgeon Award .....	4
Forthcoming meetings .....	4
Contact information.....	4



## EURODISPLAY 2005

### John Raines, Eurodisplay 2005 Chair

A small group from the Chapter committee have been working hard since the middle of last year preparing for Eurodisplay 2005, which is to be held in Edinburgh this year from 20 to 22 September. In addition to the main conference, Dr Alan Mosley is organising a Workshop to be held on Monday 19 September. In a departure from our previous method of organising the event, this time we are working with Palisades Convention Management who organise the main SID annual Symposium and many other major SID events. The Chapter has responsibility for the scientific programme and Palisades will handle the conference administration and accompanying exhibition.

A special event will be held in Edinburgh Castle on the evening of Wednesday 21<sup>st</sup> September when SID will have exclusive use of the Castle and Sharp Europe and Sharp Labs Europe have generously agreed to sponsor the catering and entertainment at the event. It should be a very special evening! We are currently at a stage where the final call for papers has gone out. You can find most of the relevant information on the SID website or just type Eurodisplay 2005 into a search-engine, and all will be revealed. Please do your best to get to Eurodisplay, as this is one event where the UK hosts the ultimate update in all display related technologies and allied topics. Hope to see you there!

## THE UK & IRELAND CHAPTER - THE FIRST TWENTY YEARS

### John Mansell

In 1984, a European steering committee was set up to discuss the development of SID activities in Europe and the possibility of the formation of an SID Chapter. Alfred Woodhead was the UK representative of the committee, which also had members from Germany, Benelux, France, Switzerland and Scandinavia. Alfred reported that the committee realised that Europeans are poor at creating opportunities in the display business. It was thought that SID had a role to play in stimulating the European display community to make the most of opportunities in the market.

The Chapter published its first Newsletter in April 1985 and on the front page reported that SID had officially recognised the formation of the UK & Ireland Chapter, the first in Europe. Ifay Chang, SID President wrote to the Branch Secretary, Derek Washington, stating, 'I am so glad that the UK & Ireland Chapter has gotten off the ground and has progressed beautifully. Let me congratulate all of you on a fine start. I am looking forward to meeting you some day in your Chapter'.

A small group set up a temporary committee consisting of Mino Green, Chairman; Neil Bartlett, Vice Chairman; Barbara Needham, Treasurer and Membership Secretary; Derek Washington, Secretary; Alfred Woodhead, Chapter European Representative; Harry Ellis, Newspaper Editor; other members were, Laurie Allard, Simon Bliss, Stephen Elmer, and David Marshall. The group established a set of by-laws, set the date for the first AGM in September of that year and organised the first two technical meetings.

The inaugural technical meeting was held on 5 June 1985 at Mullard House. The keynote address was given by Cyril Hilsum in which he described the flat panel display revolution and the steady growth in the market. He discussed the various technologies and the problems in the UK and concluded by stressing the need for exploitation and collaboration.

The meeting concluded with various members reporting on the SID 85 Symposium. The membership list for 1984-1985 lists 145 members, 21 of whom still appear on the current list, including three members of the current committee.

In September 1987, Eurodisplay '87 was held at the IEE in London. This was the third Eurodisplay conference the previous ones having been held in Germany and France.

The conference had an attendance of 350, 80% of whom were from

Europe including East Germany, Poland and Hungary. The continued increase in the command of the market by the Japanese was noted and the need for more production in Europe was reiterated. There were a large number of papers on the up-and-coming LCD display. Other topics included HDTV, thin CRTs, and EL displays.

One of the problems of setting up other chapters in Europe arose from the small number of SID members, often situated at great distances from one another. However, in the late 1980s, a second European chapter was set up in France, Le Club Visu, this was followed by the Mid European Chapter in 1993.

Credit for these developments is due to the efforts of Tony Lowe as Vice President for Europe

Throughout the life of the chapter, there has always been the problem of finding venues and speakers and trying to achieve a good level of attendance at the meetings. The chapter has always been grateful to the organisations who are prepared to host the meetings, enabling the attendance fees to be kept to a minimum. In 1991, the system of 'Best Paper Awards' was instituted to encourage speakers at the one-day technical meetings. During that year awards were presented to Barbara Needham, J N Slater and Alan Knapp.

This expansion of the activities of SID outside the US, necessitated a major restructuring which took place in May 1992. The society was reorganised into three regions; the Americas, Asia and Europe. Each region would have its own Vice President, elected by the members, with responsibility for promoting interest and activities in the region. At the same time, the SID Board was also reorganised.

An important innovation for the chapter was the organisation of a successful displays exhibition and conference at Sandown Park Exhibition Centre, Electronic Information Display '93 (EID 93). These events continued to be held annually at Sandown Park until the last one in 2000, which moved to the newly opened ExCel in London's developing docklands area.

The tenth anniversary of the chapter was marked by a one-day technical meeting on the theme of, 'The last ten years and the next ten years'. This was held on 7 July at Emmanuel College, Cambridge and there was a dinner in the evening when the guest speaker was Cyril Hilsum, FRS, who, as mentioned above, had given the keynote address at the inaugural meeting of the chapter.

It is interesting to look back at the papers given at this meeting. Papers on LCDs were given by Peter Raynes and Alan Knapp. It was reported that Canon had recently launched a 24 inch, 1280x1024, LCD display with 16 grey levels and a contrast ratio of greater than 40:1 and Sharp had produced a 21 inch display. The LCD display had become second in importance to the CRT with applications in laptop computers, monitors, hand-held TV, instrumentation and projectors. The emergence of applications for small LCD was predicted.

Jim Hurd described the progress in plasma display technology and the demonstration of a 21 inch, full-colour plasma display by Plasmaco and predicted the wide-spread use of plasma displays for TV. Meindert van Alphen covered the past, present and future of CRTs, predicting that the large manufacturing capacity of CRTs assured their future.

Adrian Travis gave a paper on, 'three dimensional video and virtual reality'. He will be giving a presentation at the AGM technical meeting at Knebworth in April, but for an update on 3D come to the technical meeting on the subject on 25 April (see P 4).

Sadly, in August 1995, shortly after the 10<sup>th</sup> anniversary meeting, Alfred Woodhead died. The Chapter lost a man who had led its setting up in 1984 and who worked tirelessly on the committee in

various roles and his commitment resulted in a very successful chapter.

At the end of September 1996, Eurodisplay '96, comprising the International Active Matrix Workshop and the 15<sup>th</sup> International Display Research Conference was held in Birmingham. This successful event was

attended by over 500 members of the world's displays community. In 1998, the Chapter Chair, Barbara Needham, who has been involved with the chapter since the beginning, was elected to Vice President. In her new role she became actively involved in the new chapters in Belarus and Russia, which resulted in closer links and co-operation between the European chapters.

1998 saw the dawn of the Chapter web site organised by our webmaster, Ian Sexton. This has proved to be a useful link for advertising meetings as well as providing reports on activities. In 2001, the AGM and a two-day technical meeting were held in two 15<sup>th</sup> Century tithe barns at Knebworth House near Stevenage. This innovation by the then chapter chair, John Raines, has proved successful and will be the venue for this year's AGM and technical meeting, with the anniversary dinner being held in Stevenage.

The world of displays has changed dramatically in the 20 years since the formation of the KU & Ireland Chapter and it will be interesting to see what the next ten years has in store.



*Mino Green,( first Chairman) talking to Derek Washington (first Secretary) at the 10<sup>th</sup> Anniversary dinner*

Photo: John Mansell



*Paul Emmerson presenting a special gift to Alfred Woodhead*

Photo: John Mansell