

## **A short history of the Gas Analysis and Sensing Group (GASG)**

(June 2001 Newsletter issue)

In the year 1993, the DTI assisted in the formation of several Interest Groups through its ASTTP (Advanced Sensor Technology Transfer Programme) scheme. One of these, the GASG, subsequently convened its inaugural meeting in December of that year, wherein Mark Churchyard of the DTI and Dr. Peter McGeehin of the United Kingdom Sensors Group (UKSG) gave talks about the ASTTP and the UKSG respectively. These were followed by a lively discussion, and a Committee was duly elected, including Ms. Jo Bazely representing the ASTTP and Dr. McGeehin representing the UKSG. Dr. Joe Watson of the University of Wales, Swansea, was elected Chairman for the Group. Five Committee members were also elected, of which three are still serving in addition to the Chairman. These are Russell Pride of British Gas (now Advantica Technologies), Dr. Peter McGeehin of Capteur Sensors (now of Compton consultants), and Dr. Paul Corcoran of Derby University (now of Jasmin Simtec Ltd.).

The financial contribution of the ASTTP was issued in three annual tranches, £6940, £4993 and £4044, and this was (as now) administered by the Finance Department of the University of Wales Swansea, where the GASG secretariat is centred. After this, the GASG became self-supporting via annual membership fees of £200 for industrial members, £100 for academics and consultants, and £600 for corporate members. The registration fees for the required three colloquia per year were set at £30 (plus £5.25 VAT) for each member, who could bring a guest at the same rate; but free for corporate members and up to five guests. A sequence of colloquia was duly set up, three Newsletters per year were published and a Proceedings booklet was distributed after each one or two meetings.

The GASG is currently operating on a very sound financial basis and the annual and conference fees have not been changed except that Corporate Members now pay £400, but may only bring up to three guests. The membership is stable at about sixty and now includes almost all the gas sensor and instrument manufacturers, the university research groups and most relevant public and private laboratories.

The coverage in the GASG programme of colloquia is very wide-ranging, and has varied from 'Industrial Site Monitoring' through 'Health and Safety' and 'The Air We Breathe' to 'Gas Sensors in Medicine'. The meetings themselves have been located at a series of industrial firms, universities, research establishments and even St. Bartholomew's Hospital.

During each year, the Committee locates hosts for the colloquia who can provide tours of their premises, which take place during an extended lunch period. These have proved extremely popular, perhaps especially at a meeting held at the Scottish Courage Brewery in Reading! This is also true for the lunch periods themselves, which allow considerable 'networking' to take place. The colloquia have now settled into a pattern involving late Spring and Summer meetings hosted by large firms, research establishments or universities, followed by a December meeting in London. This latter event allows members easy access by rail in a period of often inclement weather, and incorporates the Annual General Meeting as required by the Constitution. Generally, the host institution provides a high-ranking member of the relevant organisation to welcome the GASG, followed by an in-house technical paper, after which four or five speakers located by the Committee give presentations relevant to the themed subject matter. In several past meetings, it has been possible to field speakers from France, Germany, Norway and the USA in addition to British presenters. Each meeting is publicised in the Group's web site (<http://www-ee.swan.ac.uk/GASG>), as is the GASG itself.

The GASG co-operates with other organisations including the Sensors in Water Interest Group (SWIG), which is the other surviving Group from ASTTP days and one with which the GASG has cordial relations. So far, one colloquium has been held jointly with this Group, and also with the Institute of Physics. Additionally, the GASG co-operates with Trident Exhibitions Ltd., and fields several speakers at the MTEC Exhibition and Conference held each February at the NEC, Birmingham.

The Constitution of the GASG does not provide for, nor specifically aid, start-up firms in the area of gas sensing and instrumentation, but several small firms have been formed by members (who have occasionally had unofficial membership fee waivers!). However, it has been found possible to fund the compilation of a publication by Robert Bogue & Associates, "Gas Sensor Research in British Universities" which is issued free to members and assists them in locating sources of expertise. It is also available for sale to outside bodies. The GASG Newsletter occasionally contains a section entitled 'Company Profile' which aims to introduce either new or existing small firms to the membership, and hopefully to others by personal contact. For example, Envirosystems Ltd. was formed in late 1992 for the development of gas and vapour monitors for the health and safety market based on photo-ionisation work by DERA; Alphasense Ltd. was formed in 1997 to manufacture gas sensors beginning with electrochemical oxygen sensors; and the infra-red imaging firm IRYSIS came into being very recently. However, during the lifetime of the GASG, there has also been a consolidation of firms under 'umbrella' ownership. For example, Neotronics and Sieger have been amalgamated into the Zellweger Analytics consortium, and more recently, First Technology has acquired City Technology, Capteur Sensors and Marconi Applied Technologies (formerly EEV).

The task of seeking coherence for the very diverse sensor industry is a remarkably difficult one which has been attempted previously and has failed, largely because of lack of funding - a point which highlights the value of the original ASTTP initiative. An interesting current parallel is that of organisations aimed at publicising the benefits of clean air and the health problems engendered by polluted air. This is a topic of increasing concern, particularly in the typical British home, where air filtering is largely absent and even straightforward ventilation provision is still in the dark ages. Organisations addressing these matters are highly-fragmented, and attempts to co-ordinate them have foundered, again mostly because of funding problems. This is a topic of immediate interest to the GASG and one which, in its wider context, may well merit a major DTI initiative.

Research and development in the areas of gas sensing and instrumentation is actively encouraged by the provision of travel grants to students wishing to present their work at relevant conferences both in the UK and abroad. Recipients are required to give a synopsis of their work at the succeeding GASG Colloquium.