IOP Electronics Course at Ghana Association of Science Teachers Conference

Roger Green IOP Ghana coordinator and Consultant with the International Training and Educational Consultancy (ITEC) was invited to speak at the opening ceremony of the Ghana Association of Science Teachers (GAST). The conference was held at Presbyterian Boys School in Accra from the 31 August to the 4 September.

GAST is a prestigious organisation with a membership of 800 science teachers covering all nine Ghana Regions. The priority that the current Government is giving to Science and Education was reflected by the fact that the opening ceremony of GAST was addressed by three Government Ministers including the Minister of Education the Hon. Mr Alex Tettey-Enyo. The IOP were also invited to run an electronic workshop on three days of the conference. The new physics syllabus includes for the first time a section on electronics in every year of the Senior High School examination syllabus. Teachers are very keen to have their knowledge and practical skills in electronics improved so the workshop was well attended.

We were able to use equipment from the National Resource Centre supplemented with electronic components such as operational amplifiers, transistors, diodes and many other basic components. Components suitable for school electronic projects are readily available in many towns in Ghana from road side store. In Ghana there is a culture of repair rather than replace with new. As a result TV and radio repair workshops are seen all over Ghana hence the need for a supply of cheap discreet electronic components. Furthermore there is a body of electronic craft knowledge at street level that could be tapped for educational purposes. The only equipment not readily available are experimental prototype boards that hold the discreet component for project work. The IOP donated 40 of these boards. It would be of enormous benefit to the teaching of electronics if a number of these boards could be donated to Ghana’s Secondary High Schools.

The workshop prioritised hands on practical work including the use of oscilloscopes and multimeters. A workshop experimental booklet was given to all the participants and use was made of the electronic section of the Virtual Physics Lab (VPLab) simulations designed by John Nunn of the National Physical Laboratory. The IOP and ITEC sponsored CD ROMS for an electronics version of VPL allowing teachers to purchase the software at a huge discount and load on all their school computers.

The combination of practical work, instruction booklet and VPLab was a winning formula and teachers were very pleased with the workshop asking for similar workshops in the future.