

Closing Address

Delegates were indeed privileged to have Bristow Muldoon, MSP for Livingston to give the closing address. Bristow has a BSc in Chemistry from Strathclyde University and is therefore no stranger to laboratories or the work of technicians.



Figure 1 - Bristow Muldoon MSP for Livingston

In his address to the conference he stressed that if students were to be inspired to choose science and technology as a career option then the teaching of these subjects must be relevant, exciting and fun. This could only be achieved if teachers were given proper technical support by well-trained and motivated technicians. It was gratifying that someone of Bristow's stature should take time away from a busy schedule to address the delegates.

The future?

Brian Richmond, Project Manager, closed the conference by outlining where the project would go from here.

The project team would continue to develop training programmes; it would arrange to have them trialled and prepared for submission to the SQA for credit rating and levelling within the Scottish Credit and Qualifications Framework.

At the end of the project it was hoped that there would be a range of CPD opportunities for technicians that carried national recognition, were transferable and more meaningful than in the past.

Through the final report the Scottish Executive would receive recommendations which it was hoped, would make the technician service a more attractive career choice that would help retain existing staff, attract good quality recruits into the service and address the problem of the age profile of existing staff.

Those who contributed to the success of the conference were thanked for their efforts and following a welcome lunch, the delegates left the sanctuary of the hotel to begin their journeys through the pleasant autumn sunshine back from whence they came.

References

- [1] http://www.scottishscience.org.uk/main_files/pdf/Publications/Science_Report.pdf
- [2] [http://www.sserc.org.uk/members/SafetyNet/Technology/Tech%20Conf%2005%20%20Report\[1\].doc](http://www.sserc.org.uk/members/SafetyNet/Technology/Tech%20Conf%2005%20%20Report[1].doc)
- [3] http://www.sserc.org.uk/members/SafetyNet/Technology/Main_Menu.htm

Audacity - Further experiments

Following on from the Audacity article in Bulletin 218 here are some more :-

Bell or buzzer in the bell jar - Tape the microphone to the side of the bell jar and adjust microphone input level to full scale when the bell/buzzer is going with air in the bell jar. Gradually evacuate the jar and watch the amplitude of the trace. You will of course need to isolate the sound of the vacuum pump. Alter-

natively set an old-fashioned alarm clock (with bells) to go off once the bell-jar is evacuated. No one can hear you scream in space!

Howling Wolf - Wolf sound analysed with Analyze - Plot Spectrum then Tone generated to match up with natural sound. Use the web to find whale songs and compare the frequencies with that of the wolf.

Half full or half empty - 100 cm³ glass beaker (empty) 'dinged' with a pen and allowed to ring. Frequency analysed and pure tone generated. Beaker half filled with water and process repeated. Why not try a calibration curve of frequency vs. volume?

There are more ideas for experiments with Audacity to be found at :-

http://www.sserc.org.uk/members/SafetyNet/bulls/218/Audacity_concluding_remarks.htm

Wiring plugs – banned or not?

Recently we have been asked by a number of schools whether it is legal for pupils in schools to wire plugs or other mains devices in the context of learning about mains electricity. We believe that there is no legal reason why you should not continue to do this very worthwhile training. The Electrical Safety Council (more below) agrees and, moreover, wholeheartedly supports the activity.

We trust that that scotches this myth, which, we presume, has arisen from commentary in the press following the introduction of the Building (Scotland) Regulations 2004, and similar regulations in England. Briefly, a building warrant is now required for many re-wiring jobs, but the need for a warrant depends on the type of work and type of building. The

law therefore seeks to ensure that house re-wiring is done competently. It does not, so far as we are aware, regulate the wiring of portable appliances. In any case what schools are engaged in is education and training, not house or school re-wiring. Controls on the re-wiring of buildings have no bearing on children being taught to wire a plug.

Dead working

Just a reminder that during the plug-wiring practical the mains electricity supply to the lab must be dead throughout the exercise. Information on electrical isolation can be found in Bulletin 209 [1]. Control measures and a justification for the activity were published earlier in Bulletin 181 [2].

Electrical Safety Council

This new, re-named, public body, established in April 2006, seeks "to be the most influential and respected UK driving force for consumers in the field of electrical safety". Its formation is the result of the renaming of the highly respected National Inspection Council for Electrical Installation Contracting (NICEIC). The need for renaming is understandable. NICEIC will continue to work with the electrical contracting trade, whereas the Electrical Safety Council will be a provider of advice to the general public. To see their tips on checking a plug, go to their website [3]

[1] www.sserc.org.uk/members/SafetyNet/bulls/209/safety1.htm

[2] www.sserc.org.uk/members/SafetyNet/bulls/181/2-6.htm#Pupils%20wiring%20plugs

[3] www.electricalsafetycouncil.org.uk/tips.html