

After lunch we were briefly converted into tourists as our kind coach driver took us through the Avon Gorge and past Bristol Harbour to view two of Brunel's greatest engineering masterpieces: the Clifton Suspension Bridge and the SS Great Britain. Arriving at Bristol University, it was time for the Switched Mode Power Supply Challenge. The six teams of scholars were joined by an impromptu staff team, a belligerent storeman and some genial postgraduate students to give an entertaining afternoon.



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Back to Wills Hall for the Summer School Gala Dinner at which our guest speaker was Steve Lewis of the Bloodhound Supersonic Car Project based in Bristol. Steve gave us a wonderful insight into some of the technical challenges involved in driving a car at 1000 mph while staying in contact with the ground and was only allowed to leave after a prolonged question and answer session!



### The Results

GROUP	1	2	3	4	5	6	7
Cost (£)	7.0	4.0	4.0	10.5	7.5	6.5	5.5
Efficiency (%)	4.6	9.8	4.6	2.4	8.7	9.5	7.0
Output Ripple (mV)	2.0	0.0	4.5	0.0	7.7	7.3	6.6
Heatsink Temperature (°C)	3.9	4.9	1.6	0.0	3.6	4.9	4.7
TOTAL					27.5	28.2	23.8

On the final morning of the 2011 Summer School everyone gathered for the announcement of the results of the Switched Mode Power Supply competition. Bill Drury gave each of the assembled teams some feedback on how they had together and then the final marks for each performance category were revealed. Team 5 had only just been beaten by team 6.

The winning team of Tom Hammond (Siemens), Aaron Owusu (Siemens), Steve Finnigan (Control Techniques), Chris Spargo (Cummins) and Gareth Ling (Converteam) shared a cash prize!



Having put a lot of effort into making one prototype power electronic circuit, we then spent a couple of hours thinking about how to produce an item in thousands or millions. Karl Prince and Carl German from Siemens gave us an initial presentation on Lean Manufacturing principles. Then it was time to put theory into practice during an exercise in which teams of 10 scholars gradually improved their production line for the manufacture of Lego cars. With a target of producing 8 cars in 4 minutes, the spirit of competition was soon at work and the winning team was able to produce 21 cars in its final production run!



And so the 2011 Summer School was over with just time for lunch before everyone set off in cars, trains and planes to travel back to their companies for the remainder of the summer work placement.