

NEWS RELEASE

For immediate use

New Gas Turbine Research Centre

Cardiff University creates world class research resource.

The new Gas Turbine Test Centre operated by Cardiff University's School of Engineering concentrates on research into the combustion processes in gas turbines that will eventually lead to improved designs with greater economy and lower emissions.

The combustion test rig was donated to the University by the research company QinetiQ who had been looking for an organization to operate the unit. The test rig itself was stripped down and shipped to a brand new facility in Port Talbot where an extensive rebuild and refurbishment programme sprung into action.

Signal's part in the project was to design, procure and build the gas analysis systems that had to cope with the very wide range of operating conditions from the plant covering low to high gas concentrations as well as high temperatures and large pressure swings. It also incorporated some existing analysers from the University that were still serviceable and some complex sample handling and filtration units to control the sample selection. The whole analysis system was interfaced to Signal's control and logging package that will communicate with the University's plant control system.

This prestigious project was supported by a £3.85m grant from the European Union's Objective 1 Programme and £350,000 from the Welsh Assembly Government's Knowledge Exploitation Fund. As a sign of the importance of this new centre the Welsh Assembly Government First Minister, Rhodri Morgan, opened the facility by saying, "What is being created at ECM2 Port Talbot is truly a world class energy research resource. It is already playing a key role in the testing and development of alternative energy sources and will become an increasingly important asset in the drive to reduce carbon emissions so as to combat global warming."

In addition to the University's own research into improving the general design of gas turbines and the testing of liquid and gaseous fuels, the Centre will provide training and advice to engineering companies who wish to conduct their own tests, bringing direct and indirect benefits to small and medium size enterprises (SMEs) and other elements of the South Wales economy.

With Gas Turbines currently generating 30% of our global power through electricity generation and aviation propulsion and the world's largest and most efficient example of such technology situated at the General Electric power station at nearby Baglan Bay, The Gas Turbine Research Centre will contribute towards global and local target emission reduction, whilst bringing benefits to the local economy.

For such a high profile and technologically advanced facility, it was vital that the test equipment supplied complied with the highest specifications.

Further information is available from the Cardiff University news centre at www.cf.ac.uk/news/index.html

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