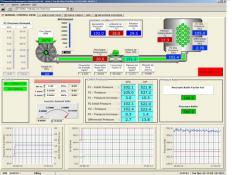
Project No: 1026 – Aero-engine fuel/air combustor testing...







## Aero-Engine Fuel/Air Combustor Testing

## **Project Overview**

To calculate the effective flow area of machines combustion components and systems for gas turbines – liners, fuel manifolds, swirlers and discharge nozzles.

The rig comprises a variable speed fan supplying air to a plenum chamber to which are attached various production combustion components to tested.

The software controls the fan, gradually increasing its speed and thus air flow to the plenum until a given pressure is achieved. The fan speed will then gradually reduced back to zero. During this time the software will monitor and record the various pressures, temperatures and flows and compute the effective flow area of the component under test.

All acquired readings are stored on the computer to enabled later reference and analysis.

The software includes a calibration facility so that periodic referencing and checking of the acquisition channels may be carried out. To monitor for possible rig drift, a trend analysis facility is also included for tests using reference orifice plates.

