Client   : Petra Engineering Industries Company.
Project : Automatic Test Bench for HVAC System.

The system reacted to change or imbalance in the variable it controls by adjusting other variables to restore the system to the desired balance.

The correctly designed HVAC control system provided a comfortable environment for occupants, optimize energy cost and consumption, improve employee productivity, facilitate efficient manufacturing, control smoke in the event of a fire, and support the operation of computer and telecommunications equipment.
Controls were essential to the proper operation of the system and were considered as early in the design process.

Scope of Work:

The scope of work covered under this project included the supply of an Automatic Test Bench for HVAC System.

The data acquisition hardware platform used is from National Instruments, cDAQ-8-slot with NI modules.

The Automatic Test Bench for HVAC System software was developed using NI's LabVIEW environment advantaging of technologies such as Real-Time

Software:

The software consisted of Automatic control which optimized the HVAC system operation. It adjusted temperatures and pressures automatically to reduce demand when spaces are unoccupied and regulated heating and cooling to provide comfort conditions while limiting energy usage.