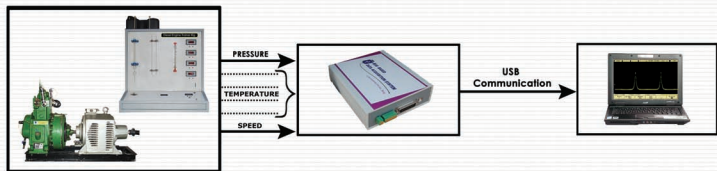


Introduction :

Data Acquisition System for IC Engine Test setup, Capable of measuring temperature at various points like Inlet & Outlet water temperature etc., of the IC Engine, Measuring speed using the built-in 32 Bit Timer / Counter, PV : PQ measurement using a pressure sensor. All the digitized data are transferred to PC via USB Port and softwares like Labview, VB, Vee Pro can be used to log all the data to analyse and present it in the desired format.



FEATURES

Data Acquisition Card :

- * ARM7 TDMI-S CPU core
- * Core operating at 72MHz performance
- * Memory : ON Chip flash - 512KB, S-RAM-32KB
- * USB 2.0 full speed connectivity
- * 12 Single ended high resolution analog I/P
- * Sampling Rate : .7Micro Sec
- * 12 - Bi-directional digital I/O lines
- * Support USB and R232 connectivity
- * USB 2.0 compatible device supported under Microsoft

Software :

- * Windows based LabView/VB/Vee pro software having the features like
 1. Menu driver, Real time on screen plotting of different stages of temperature and pressure
 2. Offline analysis & Printing

Pressure Sensor :

- * A pressure sensor provided at the engine cylinder for measure the P-V, P-Q measurement
- * Make: Kistler
- * Cylinder Pressure Sensor 0-100 bar
- * Integrated charge amplifier
- * Pressure signal output (0-4V DC)
- * Operating Temperature in mounting location 50-300°C

List of Experiments :

- * To determine Brake Power
- * To determine engine volumetric efficiency
- * To determine engine mechanical efficiency
- * To determine engine thermal efficiency
- * To determine engine specific fuel consumption
- * Compute Heat Balance Sheet
- * Determining air/fuel ratios