**COMPUTERISATION OF MACHINE LAB**

**Abstract**

Due to recent technological advancement, automation has become technically and economically feasible in various sectors. Many of industrial processes and power generating plants are computerized so that to reduce labour cost, to obtain greater efficiency and improve quality. It is possible to obtain these requirements with use of advanced controlling technique such as Programmable Logic Controller (PLC). With this technical view there is need to introduce computerization of machine lab in educational course.

In this term paper effort has been made to control and measure parameters such as voltage, current and speed of induction motor.

**Block diagram**

PLC

Drive

IM

CPU

Computer

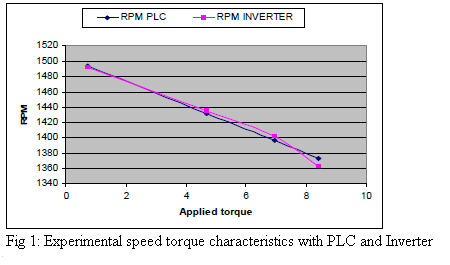
RS-232 Field

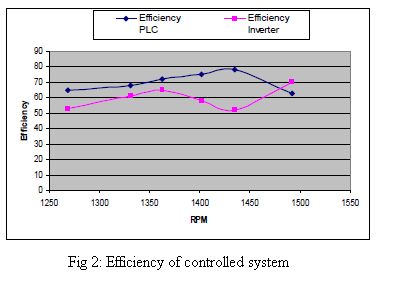
Fig 1: Block diagram (tentative) for speed control of IM

Table 1: Specification of equipment.

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| **Sl no.** | **Apparatus** | **Specification** |
| 1 | Squirrel cage type induction motor | 1440 rpm, 440V, 0.7A, 50Hz |
| 2 | Variable frequency drive | ABB ACS-150 |
| 3 | Allen-Bradley SLC 500 5/03 PLC | 8K-16K memory, 4096 I/O |
| 4 | Communication Cable | RS-232 or DH-485 |

**Results**

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