MAGNETIC LEVITATION SYSTEM
Model : ML-01
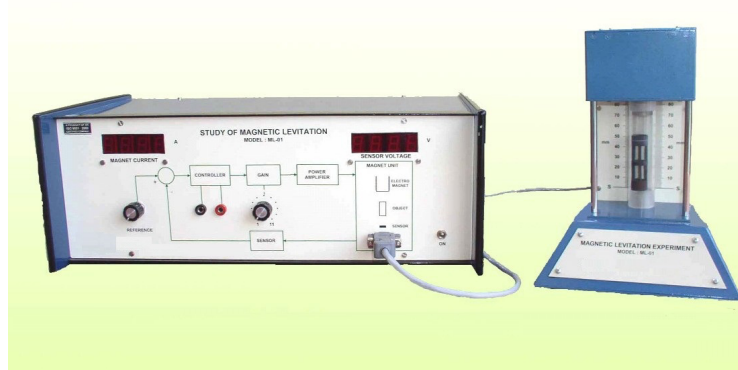
- **Object suspended in air by magnetic force – excellent visual impact**

- **Controller design to maintain stability**

- **Up-down position setting by reference control**

Description

Magnetic Levitation, lifting of objects under the influence of a magnetic field, has numerous application including designed on the responsive force of a magnetic. The present unit, base on the attractive force of an electromagnet, is inherently unstable. There is no way to keep an iron object suspended in air by manually adjusting the current in the electromagnet. Even a feedback control with forward path gain control alone is ineffective. These fasts are brought out by studying and experimenting with the dynamic of the system. The next task consists of the design of suitable controller and implementing the same to achieve the desired objective. A sound knowledge of MATLAB and its availability should be highly desirable, though not essential, for the conduct of this experiment. The basic theory, analysis and sample calculation are described in the accompanying literature.

Experiments
1. To develop the transfer function of the system through laboratory
2. To design/implement PD and lead compensation with different parameter
3. To simulate the system in MATLAB and study in detail various control option and their response

Features and Specifications
- Object suspended in air by magnetic force
- Controller design to maintain stability
- Position changing by reference
- Built-in power supplies, meters etc
- 220V/50Hz operation
- Detailed technical literature included