

**Figure 1: Schematic Diagram of the Experimental Setup**

- **System Components**:
  - Power Supply
  - Sensor
  - Data Acquirer
  - Processor

- **Operating Parameters**:
  - Voltage: 12 V
  - Frequency: 50 Hz

- **Experimental Results**:
  - Data Analysis: Graphs showing sensor output vs. time for different load conditions.

**Conclusion**

The results indicate that the system performs well under the specified conditions. Further refinement is needed to optimize performance and reduce noise levels.

**References**