

# **Automation of a Portable Linear and Rotational Probe Drive System for Electrical Probes**

## **Abstract**

In this project automation of a mechanical probe drive system using a combination of stepper motors and rotatable feed-through drive will be completed. The drive system will be used to translate a probe shaft attached to a vacuum chamber. The stepper motor automated will be done using LabVIEW and optimized. Analog signal from the drive will be used for the measurements in plasma parameters. The project will involve:

- Testing the performance of the motors.
- Interfaces between the PC and the drive.
- Development of algorithms for driving stepper motor using the LabVIEW.
- Calibration / optimization of the system

## **Academic Project Requirements:**

**1) Required No. of student(s) for academic project: 1**

**2) Name of course with branch/discipline: B.E./B.Tech. Electronics and Instrumentation Engineering**

**3) Academic Project duration:**

**(a) Total academic project duration: 8 Weeks**

**(b) Student's presence at IPR for academic project work: 5 Full working Days per week**

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