

# Plasma Diagnostic Probe for Industrial and Scientific Applications

## Abstract

The project aims to deliver a programmable electronic instrument, which can provide DC and ramp voltage output for the probe and enable measuring the current drawn by the probe circuit with respect to the grounded instrument/ DSO and DAQ.

- Brief literature survey on probe circuitry
- Conceptualization of the circuit based on identified sources/ applications
- Design and simulation of the circuits
- Fabrication
- Assembly
- Trouble-shooting and optimizations
- Automations and controlling using DAQ
- Demonstrate the application of the device in Radio-Frequency and DC produced plasmas in magnetized plasma devices.

## Academic Project Requirements:

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

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

3) Academic Project duration:

(a) Total academic project duration: 50 Weeks

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

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