Cloud based broadcasting of Plasma Diagnostics data using IOTs Platform

Abstract

A pilot project is being floated for evaluating the potentials and to make use of Internet backbone through IOT platform for transmission of Plasma Diagnostics data simultaneously among larger user group.
The project will comprise of basic bipolar analog signal conditioning followed by level translator suitable for Analog to Digital converter (ADC) to acquire the Floating potential diagnostics data on Trigger form 10-50ms pulsed plasma of Large Volume Plasma Device (LVPD) will be preliminarily performed. IOT platform with suitable microcontroller will be configured to transmit all the stream acquired data of the micro-controller memory to any cloud platform with unique and incrementing shot no tagging scheme.
Additionally, a computer GUI has to be developed which will demonstrate auto/manual refreshing of the latest acquired data to be plotted on the computer screen. GUI shall have some important features like zooming in X and Y axis to clearly visualize time and amplitude for higher resolution features present in the stored data. GUI shall have feature to choose either last shot or any historical data on screen.

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: 4 Weeks
(b) Student's presence at IPR for academic project work: 4 Full working Days per week

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