Progress Report for 4th - 11th August, 2017

Finally made the ZCD circuit work. After countless attempts, I took apart all the components and kept only the Full wave rectifier part and checked the output through the analog input of the Arduino and plot the values on an excel sheet. I found out that the rectifier was damaged and shorted. Which explain why only one cycle was being detected in earlier readings.

Later the rectifier was replaced and the circuit started working as it was suppose to. The graph is attached below that was generated using Microsoft excel sheet. The values were taken directly from the serial monitor.

Simulation time was 200ms for the ZCD raw output. (Please ignore the X-axis values).

The simulation time was 10 seconds for the AC mains Frequency deviation. (Please ignore the X-axis values).

The previous data I gave you was not accurate to 2 decimal places since in the code I was dividing an integer by an integer and storing them in a Double variable. I noticed it later.

My next job would be to create the thyristor based switching network and perhaps mount the ZCD components on a veroboard for robustness.

**In other news:**

Created a website using the Django module from python.

Learnt how to create HTML pages and how to style them using CSS.

Learnt how to create database in Django but still no idea on how to import data in them from external devices. (Any advice on that would be very helpful)

Added two graphs from bootstrapping java scripts from a web link.

Added dummy values in the graphs for now to keep it up and running.

Here’s a screenshot of the website:

