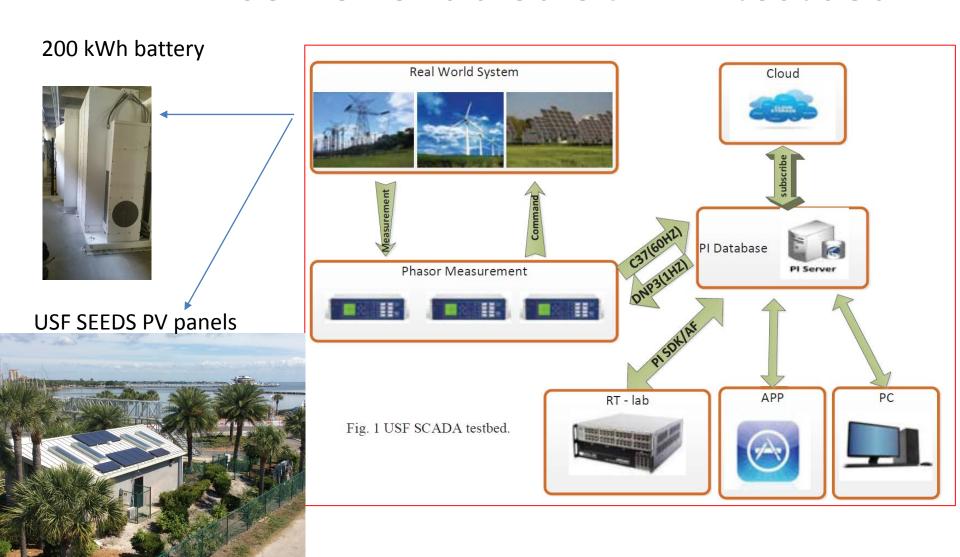
# Real-Time Digital Simulation Based SCADA Lab and HIL Machine Drive Lab at USF

#### FESC Workshop Presentation, May 21, 2015

Hossein Ghassempour, Zhixin Miao, Lingling Fan
Associate Professor
Smart Grid Power System Lab
University of South Florida
http://power.eng.usf.edu



## PI server enabled SCADA testbed



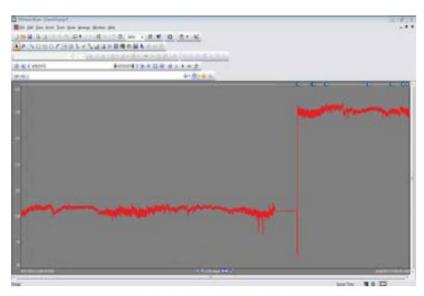
#### Data → server:

RT-lab → PI
SEL PMU → PI
Labview → PI

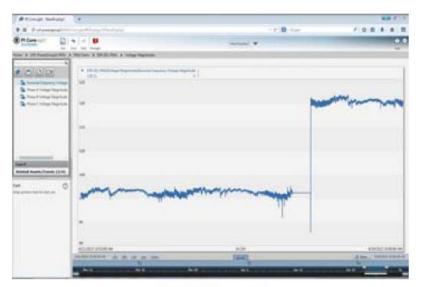
#### Server → control devices

PI → RT-lab

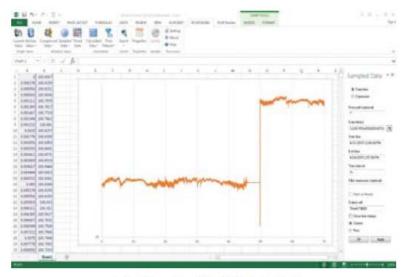
PI → 200 kWh Battery



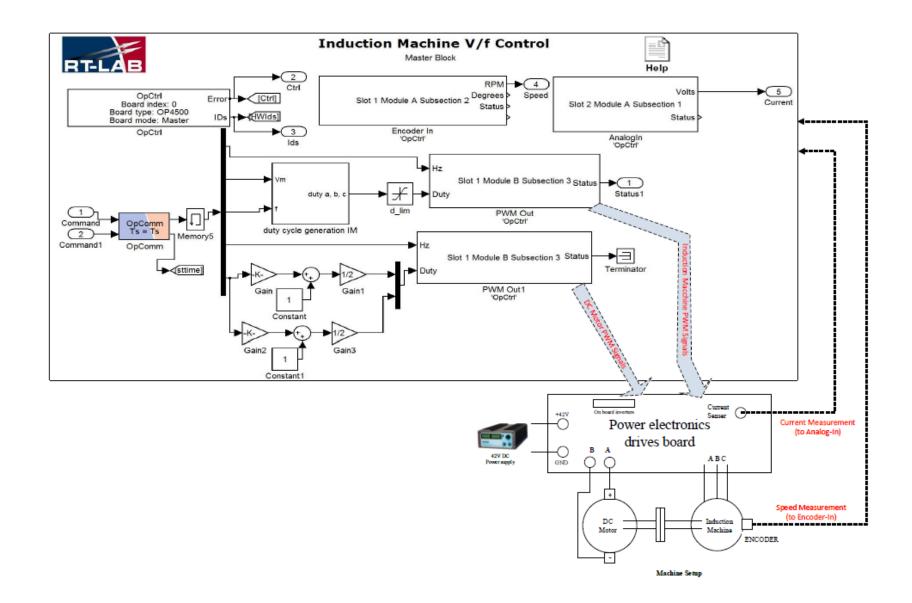
(a) PI-processbook



(b) PI-Coresight



(c) Excel with PI-datalink



### **RT-LAB Enabled Drive Lab**

