

EVENT REPORT from MAY 11, 2017

IEEE Life Members Affinity Group – Talk and Tour at Rockwell / Softswitching

On May 11th, 2017, the IEEE Life Member Affinity Group sponsored a Talk and Tour at Rockwell Automation / Softswitching Technologies, 8155 Forsythia Street, Middleton, Wisconsin. Participants numbered approximately 14, consisting of LMAG and Madison Section members. The meeting started at 5:00 PM, socializing with pizza. At 5:30 PM, Chuck Kime, LMAG Chair, introduced speakers, Dr. Bill Brumsickle and Josh Kagerbauer. Title of the talk was “Voltage Quality for Automated Processes”



Bill Brumsickle started the talk by describing a technique to detect and record short term voltage sags that can disrupt critical manufacturing processes. Then he presented a product solution called a Dynamic Sag Corrector or DySC. There are single-phase and three-phase models, but both store energy in an array of electrolytic capacitors. When voltage sags occur not exceeding 50%, a voltage doubling circuit and inverter brings the waveform back to full value without discharging bus capacitors. If voltage sags exceed 50%, stored energy from the bus capacitors is employed. There are some limitations to correction duration such as capacitor energy storage and power semiconductor thermal capacity.



Josh Kagerbauer continued with a tour of the manufacturing facility. This gave us an opportunity to see the product in various sizes and configurations in addition to the factory assembly and test stations. We learned that each DySC receives a burn-in at 40 degrees Centigrade. Banks of resistors located outdoors provide loading. Josh concluded the tour with a demo of a three-phase sag and correction on a large DySC.

The talk and tour were well-received judging from questions asked and interaction between group and presenters. Meeting adjourned at 7:00 PM.

Dave Jensen, IEEE LMAG Secretary



Tour and Demo photos

