

You are invited to an IEEE Meeting on Thursday, March 18, 2010



Title: **"Application of Thermal Mass Flow
Meters and Switches "**

Speaker: **Craig Johnson, Clipper Controls, Inc.**

Date: March 18, 2010

Time: No-host social at 5:30 pm; Presentation at 6:15pm; Dinner at 7:15 pm;
Presentation continues at 8:00 pm; Adjourn by 9:00 pm.

Place: Marie Callender's Restaurant - The Garden Room; 2090 Diamond Blvd in Concord
(near the Concord Hilton Hotel). Call 925-827-4930 if you need directions.

RSVP: Please make reservations by March 17, by contacting Gregg Boltz at
email: gboltz@brwncald.com or telephone: (925) 210-2571

Cost: The cost of dinner is \$20 for IEEE members; \$25 for non-members.

Summary:

The March 18th meeting of the Industry Applications Society for Oakland East Bay Section will feature a talk entitled "Application of Thermal Mass Flow Meters and Switches". The speaker will be Craig Johnson of Clipper Controls.

Thermal mass is a very powerful and useful technology to measure flow rate of gases and as a switch for flow, level, and interface detection. There are several ways of measuring thermal mass and this presentation will go into detail about how they work, the differences in the techniques, and where the different techniques are best used. Additionally the following topics will be discussed:

- Review of the various gas flow measurement technologies and applications where using thermal mass is best applied
- The advantages of measuring gas flow based on a mass basis vs. volume basis
- Flow conditioning issues and solutions
- Thermal measurement techniques
- Capabilities and advantages of newer digital based electronics
- How thermal mass is used as a gas or liquid flow switch, liquid level alarms, and oil/water interface detection

About the Speaker: Craig Johnson is the Company Captain of Clipper Controls which is a local firm specializing in automation, instrumentation and control products. Craig has extensive experience applying thermal mass flow meters and switches for many of our local industries including refining & chemical, power generation, water & wastewater treatment, pharmaceutical & biotech, food & beverage, and semiconductor. Craig is a Cal Poly grad with a major in mechanical engineering and a minor in marketing. Prior to joining Clipper Controls he worked as a sales engineer for Endress+Hauser and as Director of Sales for Moore Industries. He is a senior member of the International Society for Automation.

For over 25 years, Clipper Controls has represented Kurz Instruments which is a world leader in thermal mass technologies.

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