



Two-Day "Hands On" AC Drive Troubleshooting Seminar

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MEDIUM & LOW VOLTAGE DRIVES
No One Anywhere is Better at Drives Than We Are!

~ October 23rd & 24th, 2018 – Cortland, NY ~

Attention ALL AC Variable Frequency Drive Users:

One of the most **common** inquiries we get here at EMA Inc. is for training on AC Solid-State Motor Drives. Often it isn't cost effective to teach on-site schools for a small # of people. **Here is a VERY cost effective solution.**

We're offering a 2-day, intensive seminar on AC Drives. (PWM)

Who should attend? ANYONE troubleshooting, maintaining, applying or operating AC Drives.

You'll leave this school with a clear & practical understanding of solid-state AC drives, motors and the mechanical/electrical interaction which takes place. You'll learn to recognize classic drive trouble symptoms and quickly resolve common problems. This seminar could **easily** return your investment with just **one** instance of reduced downtime due to your increased knowledge. An electronic background will be helpful, but not essential.

We'll review the basic electrical laws and component operation you need to know.

~ DAY ONE ~

- Safety**
- Drive Application Basics**
 - *Horsepower/Torque
 - *Load Types
 - *Typical Applications, Pitfalls and Troubleshooting
 - *Harmonics and Noise
- Test Equipment and Measuring Methods**
 - *Component Testing
 - *Voltage/Current Measuring Methods, Problems and Considerations of Non-sinusoidal Waveforms
 - *Oscilloscope Basics and Safety Considerations
- Discrete Components and Typical Circuits Overview**
 - *Passive Components (capacitors, diodes)
 - *Active Components (transistors, IGBT's etc.) and Associated Circuits
 - *Inductors, Transformers
 - *Electrical Laws

~DAY TWO ~

- AC Motors**
 - *Construction & Theory of Operation (Induction)
 - *Connections & Testing
 - *Maintenance
- AC Drives**
 - *Construction & Theory of Operation (PWM)
 - *Braking Types (Dynamic, DC Injection, Line Regenerative)
 - *Programming
 - *User Interface (I/O)
 - *Drive, Motor, and Load Data
 - *Faults & Troubleshooting
 - *Visual & Test Equipment Diagnosis
 - *Typical Application Problems
 - *Maintenance
- Final Review and Open Question Session.**

Space is limited. Please call Kristin and reserve your seat(s) today.

(607) 756-0424



Please fill out the form below and fax back to (607) 756-0429

Company Name: _____

Billing Address: _____

Phone: _____ **Fax:** _____

Email Address: _____

Name of Attendee(s): _____

An EMA representative will contact you for payment.

\$695.00 / Person

Cost covers tuition, School Materials and lunch both days.

Students are encouraged to bring their own Multimeters to the seminar.

Classes start promptly @ 8:00AM
and finish @ 4:30PM

In order to assure registration, all class fees must be received prior to the scheduled seminar date.

I would like to be informed of future classes:

_____ (✓)

"Cancellation Policy:

EMA reserves the right to cancel a scheduled class at anytime due to low enrollment. In this situation, the student will be asked to reschedule or the tuition cost will be refunded. EMA is not liable for any charges incurred by the customer (i.e.-airline, hotel, and rental car) due to cancellation. Payment is required at the time of registration.

Cancellation fee for customers if canceling within 1 week of the scheduled class, is 100% of the total.

Please email kburdick@emainc.net to be removed from our Mailing List.