



# Medium Voltage Systems School

October 13-17 2014

Roanoke, Virginia

*A GREAT source of information on:*

- *Medium Voltage [MV] Variable Frequency Drives [VFDs]*
- *MV induction and synchronous motors*
- *MV drive and motor compatibility, and power quality*
- *Selection criteria for MV versus LV drives*
- *MV drive lab session*
- *MV Power systems design concepts and criteria, including harmonic and power factor control, short circuit & load flow analysis, packaging & installation*
- *MV Power equipment in systems containing MV drives, including substations & switchgear, protective relaying, motor control, and transformers.*

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*We drive industry*

# Course Overview



The innovative TMEIC Medium Voltage Systems School is an information-packed 3 ½ day series of practical sessions covering the selection, specification, and application of industrial Medium Voltage Equipment. Project engineers, equipment specifiers and technicians will learn key application information for MV variable frequency AC drives, large motors, switchgear, protective relays and related MV power systems and distribution equipment. Instructors are TMEIC application engineers and industry experts with many years experience in MV drives, motors and systems applications in a wide variety of industries.

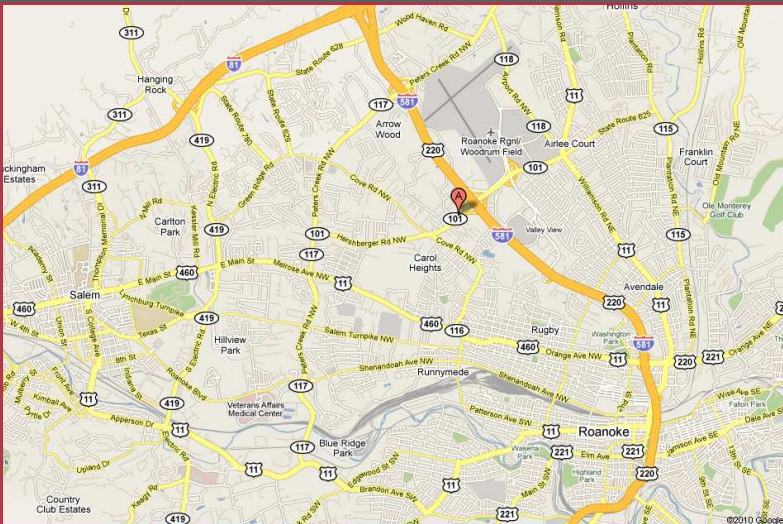
The focus for the week will be application topics for engineers and technicians. While related topics such as troubleshooting or maintenance issues may be addressed on an individual basis, these are not central to the curriculum.

In addition to classroom presentations, attendees are encouraged to bring their own real-world application issues for group discussion. Twenty Five [25] Professional Development Hours [PDH] will be documented for those interested in applying their participation to maintaining their professional accreditation.

**TMEIC Corporation  
Roanoke, Virginia**

## Host Hotel

**Sheraton Hotel & Conference Center**  
2801 Hershberger Road  
Roanoke, Virginia 24017  
Phone: (540) 563-9300, FAX: (540) 561-7910



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# Preliminary Course Agenda



## MONDAY Oct. 13, 2014

6:30 PM Early Bird Reception -  
**Sheraton Airport Hotel**  
**[Room TBA]**

## TUESDAY Oct. 14 2014

8:30 Welcome & Introduction  
9:00 MV Overall Systems Representations  
9:15 Power System Short Circuit &  
Load Flow Analysis  
11:15 MV Motor Control (MV Motor Starters)  
12:00 Lunch  
1:00 Application Story \*  
1:15 MV Switchgear  
2:30 MV System Protection & Relaying Fundamentals  
4:00 MV Substation Design & Spec Fundamentals  
5:00 Adjourn  
5:30 Social Hour - **Sheraton Airport Hotel**

## WEDNESDAY Oct. 15, 2014

8:30 MV Transformers & Reactors  
10:00 VFD Fundamentals & Drive Evolution  
11:15 Application Story \*  
11:30 MV Induction Motors  
12:00 Class Photo & Lunch  
12:45 MV Induction Motors [contd]  
1:15 Break Out Sessions / Application Story\*  
3:15 MV Synchronous Motors  
4:15 Application Story \*  
4:30 MV Drive VFD Motor Application  
5:00 Adjourn  
5:30 **Social Hour and Group Recreation**

## THURSDAY Oct. 16, 2014

8:30 Drive Application  
9:30 Application Story \*  
10:00 Overview Constant Torque & Variable Torque  
Applications & Examples  
10:45 Application Story \*  
11:00 MV VFDs vs. RV Starters &  
Mechanical VSDs  
12:00 Lunch  
12:45 Global Motor Standards and Applications  
1:15 Break Out Sessions / Application Story\*  
3:15 MV Drive Energy Savings & Payback  
Analysis  
3:45 Application Story \*  
4:00 Effects of Drives on Power Systems  
5:00 Adjourn  
6:30 **Social Hour and Graduation Dinner**

**Hidden Valley Country Club**

## FRIDAY Oct. 17, 2014

8:30 Drive Operating Interfaces with  
Plant Controls  
9:00 Application Story \*  
9:15 MV Drive Specifications - practical  
implications & benefits of various spec  
requirements  
10:00 Application Story \*  
10:15 MV Drive Specifications  
10:45 Final Questions  
11:00 Evaluation Forms  
11:15 Final remarks and Adjourn

\* *Application stories are actual designs and solutions taken from key industries such as Oil and Gas, Mining, Testing, Cement, Utility, Water-Wastewater and others.*

*Final detailed agenda may vary*

*Classes are taught by TMEIC applications engineers and industry experts who bring over 200 years of combined practical industry experience to their presentations.*

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# Registration Details

Hotel reservations should be made directly with Sheraton Hotel at 540-563-9300.  
Ask for the **TMEIC Medium Voltage Systems** School room block — before Oct 09, 2014

**Medium Voltage Systems School registration includes:**

- Welcome Reception - Monday Evening
- Lunch - Tuesday, Wednesday and Thursday.
- Dinner - Thursday night (Graduation Dinner, coat/tie optional)
- Social Hour—Monday, Tuesday and Wednesday evenings
- Paper copy and/or CD copy of class presentations.
- Tuition for the 3 1/2 day school is FREE to qualified participants; registration space is limited
- Participants are responsible for travel and lodging expenses



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## Registration Form – Medium Voltage Systems School – October 13-17, 2014

Salutation: \_\_\_\_\_

First Name: \_\_\_\_\_ M.I.: \_\_\_\_\_ Last Name: \_\_\_\_\_

Company Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip or Post Code: \_\_\_\_\_ Country: \_\_\_\_\_

Business Title: \_\_\_\_\_

Email Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Or Mail to: Sue Porterfield (Email: [sue.porterfield@tmeic.com](mailto:sue.porterfield@tmeic.com))  
TMEIC Corporation  
2060 Cook Drive  
Salem, Virginia, USA 24153  
Phone: (540) 283-2004;  
FAX: (540) 283-2005

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Instructional and reference material will be provided as part of the school. Materials will be provided on CDROM.

**TMEiC**

Phone: +1-540-283-2000  
[www.tmeic.com](http://www.tmeic.com)