



# **The CEAS - Applied Science**

**Presents**

**A Concentrated One-Week Short Course  
Designed Specifically For  
Practicing Engineers**

## **Polyphase Systems and Electric Machinery**

**December 4 - 8, 2006**

**Professional Development endorsed -  
3 ceu credits are offered and validated through  
IEEE**

**Course is designed to meet the needs of graduate engineers in:**

**Electrical,  
Electrical-mechanical,  
Mechanical engineering positions,  
Engineering Consulting,  
Installation of 3-phase machinery.**

**Principal Topics covered include:**

**Review of AC circuit analysis and phasors  
3-phase power systems  
DC Machines  
Complex power  
Transformers  
3 phase transformer connections  
Rotating electric machine fundamentals  
3 phase synchronous motors, dynamos  
3 phase induction motors  
Single phase motors**

**Course Format:**

**Morning lecture – 3 hours followed by Afternoon laboratory exercises – 3 hours**

**Your Instructors:**

**Elvin D. Stepp, MS, PE**

Member of the faculty of the CEAS - Applied Science for 25 years and the head of the ECET department for the last 15 years. Before joining the college Elvin gained industrial experience at Cincinnati Electronics and Texas Instruments. Elvin regularly consults in engineering and technology and this work has involved teaching technology, analysis of problems and development of state-of-the-art instrumentation, including embedded systems. He is a Registered Professional Engineer, State of Ohio, Senior Member of the IEEE and was an NDEA Fellow, 1971-1972, with seven patents to this point.

**Max Rabiee, Ph.D., P.E.**

Max has taught for 23 years and has been a member of the faculty of the CEAS - Applied Science for the last 5 years. His industrial experience includes work with Watkins and Associates Engineering Company, University of Kentucky (UK) Center for Robotics and Manufacturing, Project sponsored by Toyota Motor Manufacturing, Wright-Patterson Air Force Base, Sundstrand Aerospace Corporation, and The Tennessee Valley Authority. Max has authored five textbooks and is a Registered Professional Engineer in the State of Kentucky as well as a Senior Member of the Institute of Electrical and Electronic Engineering (IEEE) Society.

**You will need:**

Participants will be expected to have, and know how to use a scientific calculator that can perform mixed mode entry (polar or rectangular form) complex number arithmetic. Such a calculator might be a TI-68, TI-86 or TI-89. Its use for AC circuit analysis will be initially reviewed in the course.

**Registration :**

All expenses including ceu registration with IEEE and text are included within the course fee of \$1,495.00.

Payment may be made through check, credit card, or company purchase order. To reserve your seat in this dynamic, hands-on course, please complete the registration form below and either fax to 513-556-5328, call 513-556-6558, mail to: CEAS - Applied Science – ECET, University of Cincinnati, PO Box 210103, Cincinnati, Ohio 45221-0103 or log onto [www.uc.edu/cas/polyphase](http://www.uc.edu/cas/polyphase).

**Register me for the Short Course**

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**Payment by:** Check  Company Purchase Order # \_\_\_\_\_

Credit Card (Visa, Mastercard, Discover) \_\_\_\_\_

Card Number: \_\_\_\_\_ Exp. \_\_\_\_\_