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## NONLINEAR ENGINEERING, LLC



#### **IMPORTANT NOTICE:**

To continue receiving your chapter's event notifications, please be sure your email and postal addresses are up to date on the ASM web site:

#### www.asminternational.org

We will continue to send the hard copy to members who do not have email or have requested email not be sent.

Be sure to visit the chapter websites at: <u>EasternVA.asminternational.org</u> <u>asmeasternvirginia.tripod.com</u>



Eastern VA Chapter ASM C/O Steven J. Gentz 2252 Towne Park Drive SW Huntsville, AL 35803



## **Eastern Virginia Chapter**

A Joint Meeting with the Central Virginia Section of ASME

# Students' Night Applications of Tools of Forensic Science in Metallurgy

Friday, November 14, 2014

The Advanced Technology Center (ATC) 1800 College Crescent Room 131 Virginia Beach, Virginia 23453 804-648-5800 http://www.vbatc.com/a-about.html

5:30 – 6:00 PM: Social 6:00 – 7:00 PM: Dinner 7:00 – 8:30 PM: Presentation by Dr. Robert Pond, Jr.

**Dinner:** Free for the first 30 students and accompanying teachers, \$10 for members, retirees, teachers, parents, and additional students.

**Reservations:** Please notify Jeff Wiese at 804-421-7897 or wiese@nleng.com by Wednesday, November 12 on your planned attendance.

#### Chairman's Message:

This month's program is part of our Chapter's continuing commitment to student education at the high school and college levels. In addition to Students' Night, finances permitting, we offer scholarships to graduating high school seniors (\$3,000 total last season), funding for one or two ASM Teachers' Camps (\$3,500 this past summer), and provide a grant to cover the travel expenses for one or more high school students to attend the summer ASM Materials Camp. We had no Materials Camp attendees this year, but the Students' Night talks would normally begin with a presentation by one of the attendees describing his/her experiences.

Dr. Pond is an excellent speaker, and he has been kind enough to visit our section for many years, continuing the tradition begun by his father. Although high school students and teachers are specifically invited, his presentations are always interesting and accessible to all. This month's program is sure to be no exception.

Jeff Wiese

#### **About the Presentation:**

From the beginning of the use of metals and alloys engineered structures have suffered from failures. The scientific analysis of metallurgical failures often identifies chronic and generic problems, and identifies ways to fix these problems. Scientific techniques are also used to establish fault.

The instruments that are used to analyze aspects of failures are themselves extensions of physics. This talk will examine some classic materials failures and develop an understanding of the scientific techniques used in finding the failure causes as well as examining the attributes and modes of different kinds of failures.

#### **About the Speaker:**

Dr. Robert Pond, Jr. has been involved in materials and metallurgical engineering fields for more than forty years. He has worked in research

laboratories including the Ballistics Research Laboratory at Aberdeen Proving Ground and for industries. He has taught at the U. S. Naval Academy, for the American Society for Materials International, and is a full-time Associate Professor of Engineering in materials at Loyola University Maryland in Baltimore. He has participated in the analysis of more than a thousand engineering failures for industry, the government, and in litigation- testifying in court venues more than 150 times.

#### **Directions from Peninsula/Richmond Areas:**

Heading East on I-64:

- 1. Take Exit 284A toward Virginia Beach merge onto I-264E
- 2. Turn Exit 17A to Independent Avenue South
- 3. Turn left onto Buckner Boulevard
- 4. Turn right onto Student Avenue
- 5. Turn left onto Michael Labouve Drive
- 6. Turn right onto College Crescent
- 7. The ATC is on the right with general parking available adjacent to the building

### **Upcoming Events:**

January:	Aluminum Bridge Deck Structures for Highway Use*
	(Joint Meeting with ASME in Richmond)
February:	Engineers' Week Activities (Tidewater and Richmond)
	RJEC Engineers Week Banquet – February 26 (rjec.org)
	PEC Engineers Week Banquet – February 28 (va-pec.org)
March 14 ( $\pi$ day): CO <sub>2</sub> Dragster Contest at Celebrating Engineering	
	Ingenuity Day (Richmond)
April:	Equilibrium Phase Diagrams* (Williamsburg)
May:	Spring Social: All You Can Eat at Bottoms Up Pizza (Joint
-	Meeting with ASME in Richmond)

\* 1 PDH credit will be awarded for each technical presentation

#### **Chapter Officers:**

Chairman: Jeff Wiese wiese@NLEng.com

Secretary: Kurt Thompson kurtthomps@aol.com

Web Master: Jim Hurst bricks59@cox.net Vice Chairman: Open Position

Treasurer: Don Geisler drgeisler@verizon.net

Program Chair: Steve Gentz steven.j.gentz@nasa.gov

# Nonlinear Engineering



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