



AMERICAN NUCLEAR SOCIETY EDUCATION, TRAINING AND WORKFORCE DEVELOPMENT DIVISION

MESSAGE FROM THE CHAIR

*Dr. Mike Robinson
ETWD Division Chair*

Let me be the first to welcome you to the Education, Training, **and Workforce Development** Division (ETWDD). Yes, the change in the name of our division has been approved. Granted the acronym is longer and a bit more difficult to master, but our name now more completely reflects the areas of emphasis in the division with the addition of Workforce Development.

Workforce development has not only been an emphasis in our division, but is also one of the greatest challenges facing the nuclear power industry. A large increase in the number of new nuclear workers will soon be required to support the resurgence in nuclear power industry and to replace retiring Baby Boomers. However, numbers are not the only challenge. The quality of new nuclear workers is an issue that is as important as the quantity of new workers. Those of us who lived through the period following the Three Mile Island accident know that we are only one accident from a return to the nuclear stone ages. The production of high quality graduates to supply our growing industry is one of our best defenses against another accident like TMI.

Workforce development has been an area of emphasis of our division for a number of years. Our division continues to sponsor the Nuclear Workforce Working Group which meets at 12 pm on each Sunday before the ANS summer and winter meetings. This group provides a forum for communications on the issues that are at the forefront of national efforts for nuclear workforce development. (Any ANS member should feel free to join us at this meeting or at any of the other ETWDD

technical sessions or governance meetings during the upcoming ANS Winter meeting.) Workforce development was an outstanding area of emphasis at the 2009 Conference on Nuclear Training and Education (CONTE) held in Jacksonville in February, as it was at CONTE 2007. Two sessions entitled Workforce Development; two sessions entitled Leveraging Resources through Partnerships, two sessions entitled University Programs for Nuclear Growth, and a Nuclear Energy Technology Workforce workshop were among the sessions that highlighted different aspects of nuclear workforce issues at CONTE 2009. The conference was an outstanding success, providing some evidence of the international interest in this area. Our technical program at the upcoming ANS Winter meeting also reflects the emphasis on workforce development in several sessions.

Although workforce development is a vitally important issue in our division, this is not to say that workforce development is the sole focus of the ETWDD. Our division will continue to feature sessions related to our other traditional interests in education and training as well as in workforce development. This diversity of topics is well

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represented in the technical program at the winter meeting. Interests in all three areas will be covered in both the Cutting Edge Techniques in Education Training, and Distance Learning session on Tuesday, and in the Best of CONTE 2009 session on Wednesday. These sessions will be supplemented by special interest sessions, including the Student Design Competition, a panel on educational program accreditation, and two panels on communicating with the Media and with Policymakers. Even though our division is thriving, we still need to determine how we can better serve your needs. The ETWDD is planning to sponsor a survey of the division membership to determine how we can improve. Your participation in that survey will be appreciated.

Please contact me if you have any questions or comments. I look forward to seeing you in Washington.

**NUCLEAR ENGINEERING
DISTANCE EDUCATION
UNIVERSITY OF TENNESSEE, KNOXVILLE**

H. L. Dodds

Professor, Nuclear Engineering, UTK

The University of Tennessee, Knoxville (UTK) has a long history of Distance Education (DE) programs in a variety of disciplines. Currently, there are fifteen MS programs and four MBA programs serving approximately 1000 students located all over the U.S. and abroad. The UTK Nuclear Engineering Department offers seven DE programs: MS in Nuclear Engineering (NE); MS in Reliability and Maintainability Engineering, which is an interdepartmental program involving NE, ME, IE, and ChE; Graduate Certificate in Nuclear Criticality Safety; Graduate Certificate in Reliability and Maintainability Engineering; One week short course on Nuclear Criticality

Safety; One week short course on Neutron Transport Theory; and a Colloquium Program

that is free and open to public. The first six programs are delivered interactively in real time over the Internet (i.e., live online) using CENTRA technology (see <http://anywhere.tennessee.edu/de/tech/default2.html>) and the Colloquium program is a real time web cast that is also interactive (see <http://www.engr.utk.edu/nuclear/colloquia/Archive> for approximately ten years of our archived colloquia). CENTRA technology also permits simultaneous delivery of courses to both local and distance students; that is, local students are in the classroom with the professor and distance students in cyber space are “logged in” to the class and participate interactively in class in the same manner as the local students.

An interesting “DE twist” occurred recently in that one of our professors delivered two live online courses from Portsmouth, OH, which is about 300 miles from the Knoxville campus, to both local students on campus and distance students located anywhere. In other words, the technology is such that instructors can be located anywhere and students can be located anywhere. Thus, universities and other organizations such as national laboratories can collaborate on educational programs whereby instructors at each participating institution can deliver live online courses to students at all of the participating institutions. This concept should be particularly useful for large countries (e.g., China or countries in Western Europe) whereby different institutions share their experts in order to enhance the overall quality of their education and training programs.

Finally, approximately 25% of our graduate students are distance students, most of whom are working professionals who usually have a BS degree in engineering and seek to increase their knowledge of nuclear engineering by obtaining a Graduate Certificate or an MS degree (or both). Our DE programs have provided us with considerable visibility and recognition and, most importantly, genuine appreciation from our distance students.

OTHER SOURCES OF INFORMATION

The following websites provide additional information about the American Nuclear Society and the Education, Training and Workforce Development Division:

- <http://www.ans.org>
- <http://etd.ans.org>

At these two web sites you will find information including, meeting and learning opportunities, newsletters, meeting minutes, and links to other nuclear industry resources.

**2009 ANS WINTER MEETING
Washington, D.C.
November 15-19, 2009**

Below are some of the 2009 Annual Meeting committee meetings and technical sessions of potential interest to ETWDD members:

Sunday, November 15

9:30-10:30	ETD University /Industry/Government Relations Committee	Parlor #303
10:30-12:00	ETD Program Committee	Parlor #303
11:00-12:00	Membership Committee	Parlor #302
12:00-1:30	ETD Nuclear Workforce Working Group	Parlor #309
1:00-2:00	Alpha Nu Sigma	Governor's Boardroom
1:30-4:00	ETD Executive / Membership / Honors & Awards	Parlor #303
4:00-6:00	Public Information Committee	Palladian Ballroom
7:30-9:00	NEED Committee	Chairman's Boardroom

Monday, November 16

11:30-1:00	Professional Women in ANS Committee	Parlor #302
2:30-4:00	Student Design Competiton	Ambassador Ballroom
4:30-6:00	NEDHO Committee	Capitol Room

Tuesday, November 17

8:30-11:30	Cutting Edge Techniques in Education, Training and Distance Learning	Ambassador Ballroom
1:00-4:00	Focus on Communications: Meet the Media Panel	Ambassador Ballroom
1:00-4:00	Focus on Communications: Communications with Policymakers	Ambassador Ballroom

Wednesday, November 18

8:30-11:30	Workforce Development and Outreach	Ambassador Ballroom
1:00-4:00	Best of CONTE 2009	

Thursday, November 19

8:30-11:30	Changes in Accreditation	Ambassador Ballroom
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**ANS 2010 ANNUAL MEETING
June 13-17, 2010 in San Diego, CA**

As always, the Education and Training Division needs your active participation. Please plan ahead to support the 2010 Annual Meeting by submitting a paper, participating as a panelist, serving on a committee, or getting engaged in your Division in some other manner. Paper submission deadlines for the 2010 ANS Annual Meeting:

- Submission of summaries: 01/08/2010
- Author notification of acceptance:02/23/2010
- Revised summaries due: 03/09/2010

ETD is sponsoring the following sessions at the 2010 ANS Annual meeting:

- Education and Training: General
- Training, Human Performance, and Work Force Development
- Research by U.S. Department of Energy Sponsored Students
- Innovations in Nuclear Engineering Education, Training, and Distance Learning
- The Need for Nuclear Engineers with a Professional Engineering License
- The Bettis Reactor Engineering School

ALPHA NU SIGMA NEWS

Dr. William Burchill, Past President of the American Nuclear Society, presented the Alpha Nu Sigma honor society charter to Dr. Jane A. LeClair, Associate Dean, Excelsior College School of Business and Technology on July 9, 2009. Excelsior is one of only 18 institutions of higher education to have received the Alpha Nu Sigma charter.

The Alpha Nu Sigma Society recognizes high scholarship, integrity, and potential achievement in applied nuclear science and nuclear engineering among outstanding students by means of membership in the Society. Thirty-one Excelsior College students were inducted into the honor society.

The ANS Student Section at Excelsior College, chartered in Spring 2008, is flourishing. More than one hundred students have joined the group, which holds quarterly virtual meetings. The three meetings held in 2009 to date have each featured presentations by Past Presidents of ANS. Dr. Robert Long led a lively discussion on “Lessons Learned from Three Mile Island” at the March meeting. Dr. William Burchill, Immediately-Past President, presented remarks on “The U.S. Nuclear Renaissance and the Challenges it Presents” to the group in June.

Finally, in September, Dr. Larry Foulke discussed the SL1 nuclear accident. All three sessions were very well-received by the student section members, who report that being able to interact with and learn from such industry leaders as Drs. Long, Burchill, and Foulke is a wonderful benefit of belonging to ANS and the Excelsior Student Section.

CONTE 2011 ASSISTANCE NEEDED

As CONTE continues to benefit the nuclear training and education community as well as the ETWD division, please consider a leadership or support position for the next CONTE in February 2011 in Jacksonville, FL.

FUTURE ANS MEETINGS

The following future ANS meetings should be of interest to ETWDD members:

- 2010 Annual Meeting, June 13-17, 2010, San Diego, CA
- 2010 Winter Meeting, November 7-11, 2010, Las Vegas, NV (NOTE new location)
- CONTE 2011 – Conference on Nuclear Training and Education, February 2011, Hyatt Regency Riverfront, Jacksonville, FL

COMMITTEES & POINTS OF CONTACT

Please go to the ANS ETWDD website contacts page for detailed contact information:

<http://etd.ans.org/contacts.html>

The Education, Training and Workforce Development Division has the following committees and points of contact:

Committee	Primary Point of Contact
Executive Committee	Michael Robinson
Staff Liaison	Sharon S. Kerrick
Board Liaison	Eric P. Loewen
Finance Committee	Travis Knight
Program Committee	Peter F. Caracappa
Univ/Industry/Gov Relations Committee	H. Lee Dodds
Honors & Awards Committee	Kent W. Hamlin
Nominating Committee	Richard P. Coe
Nuclear Workforce Working Group	Ann D. Winters
CONTE 2011 Technical Program Committee Chair	To be Determined
ETD Webmaster	John Wheeler
Ex Officio	Donald Hoffman & Richard P. Coe