Conference on Nuclear Training & Education 2013

CONTE

American Nuclear Society: Topical Meeting
Co-sponsored by the: European Nuclear Society

"An International Forum for the Discussion of Issues Facing Nuclear Energy Training and Education"

February 3-6, 2013
Jacksonville, Florida

Hyatt Regency Jacksonville Riverfront

Official Program
CONTRIBUTING ORGANIZATIONS

The organizations listed below have made an outstanding contribution to the success of the 2013 CONTE Conference on Nuclear Training & Education and to the enjoyment of the attendees and their guests through their generous sponsorship.

**PLATINUM SPONSORSHIP**
- Entergy Nuclear
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- Exelon Nuclear
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- NextEra Energy
- Southern Nuclear Operating Company
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- Linn State Technical College Nuclear Technology
- NWI Consulting, LLC
- Teletrix
- TriLink Systems
- University of Missouri Research Reactor (MURR)

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**SUNDAY, FEBRUARY 3, 2013:**
- Excelsior College (Opening Reception)

**MONDAY, FEBRUARY 4, 2013:**
- Thomas Edison State College (Monday Breakfast)
- Entergy Nuclear (Monday Lunch)
- Exelon Nuclear (Monday Reception)

**TUESDAY, FEBRUARY 5, 2013:**
- TVA (Tuesday Breakfast)
- Westinghouse (Tuesday Lunch)
- L-3 MAPPS (Tuesday Reception)

**WEDNESDAY, FEBRUARY 6, 2013:**
- NextEra Energy (Wednesday Breakfast)
- Southern Nuclear Operating Company (Wednesday Lunch)

**THANK YOU!**
Conference on Nuclear Training and Education

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February 3-6, 2013
Hyatt Regency Jacksonville Riverfront
Jacksonville, Florida, USA

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- Find important information about hotel accommodations, meeting registration, the conference proceedings and social events that are scheduled.
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GENERAL CHAIR:
Dr. Audeen Fentiman
Associate Dean of Engineering
Purdue University

TECHNICAL PROGRAM COMMITTEE

Dr. Philip Beeley
Khalifa University

Patrick Berry
Entergy

Joel Bohlmann
Institute of Nuclear Power Operations

Dr. Gilbert Brown
University of Massachusetts – Lowell

Dr. Richard Coe
Thomas Edison State College

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David Helling
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Idaho National Lab

Dr. Jane LeClair
Excelsior College

Gregg Ludlam
Exelon

Elizabeth McAndrew-Benavides
Nuclear Energy Institute

Renee Milner
TVA

Brian Molloy
IAEA

Jeff Place
Institute of Nuclear Power Operations

Julie Sickle
Constellation Energy

Adrian Skinner
Excelsior College

TECHNICAL PROGRAM CO-CHAIR:
Jane LeClair
Excelsior College

TECHNICAL PROGRAM CO-CHAIR:
Patrick Berry
Entergy
LEARN ABOUT
• Current Nuclear Energy Issues and Challenges
• The Status of Nuclear Energy in Newcomer Countries
• New Education & Training Techniques
• Establishing the Training Conscience
• Developing the Future Workforce
• Leadership Development
• Innovations in Education and Training Delivery
• Education and Industry Partnering
• Emerging Industry Trends in Training

CONFERENCE REGISTRATION
Registration is required for all attendees and presenters. Badges are required for admission to all events.

The Full Conference Registration Fee includes admission to all technical sessions, Opening Reception, Monday Luncheon, Tuesday Luncheon, Wednesday Luncheon and the conference proceedings.

The Student Registration Fee includes admission to all technical sessions and the conference proceedings. A full time student i.d. is required. Note: Additional tickets can be purchased at the ANS registration desk for the Opening Reception, Monday Luncheon and the Tuesday Luncheon.

REGISTRATION HOURS
The ANS registration desk and message desk will be located in the Grand Ballroom Foyer, second level of the Hyatt Regency Jacksonville Riverfront Hotel. You may register, purchase tickets for events, or pick up your registration packet during the following hours:

Sunday, FEBRUARY 3, 2013  3:00 PM - 8:00 PM
Monday, FEBRUARY 4, 2013  7:30 AM - 6:00 PM
Tuesday, FEBRUARY 5, 2013  7:30 AM - 6:00 PM
Wednesday, FEBRUARY 6, 2013  7:30 AM - 12:00 PM

HOTEL ACCOMMODATIONS
The Hyatt Regency Jacksonville Riverfront Hotel, located at 225 CoastLine Drive East, Jacksonville, Florida, 32202, will be the location for 2013 CONTE, where all meeting activities and technical sessions will take place.

CONFERENCE PROCEEDINGS
Each conference registrant will receive a copy of the proceedings with their registration material. Additional copies may be purchased at the conference registration desk for $95.00. To purchase copies following the conference, you may contact the ANS Accounting Department at 708-579-8210 (phone); 708-579-8314 (fax); accounting@ans.org (email); or submit your request in writing to: American Nuclear Society, 97781 Eagle Way, Chicago, IL 60678-9770. Payment information must accompany all orders.

Please note: When sending something to ANS with express mail or with an overnight service provider such as FedEx, UPS, DHL, etc., please use the following address only: American Nuclear Society, 555 North Kensington Avenue, La Grange Park, IL 60526, U.S.A. Do not use the Eagle Way address in Chicago for express and overnight mail as it will be returned to sender and this will result in a processing delay.

SOCIAL FUNCTIONS
OPENING RECEPTION & SUPER BOWL XLVII PARTY
(Sponsored by Excelsior College)
SUNDAY, FEBRUARY 3, 2013 • 6:30 PM – 9:00 PM
LOCATION: GRAND BALLROOM FOYER 5–8
Each full conference registrant will receive a ticket for the reception. Additional tickets may be purchased on-site at the ANS registration desk for $85.00.

CONTE Super Bowl Party – Don’t miss a moment of game play!
Join us for the CONTE Opening Reception on Sunday, February 3, 2013, 6:30 – 9:00 pm in the Grand Ballroom Foyer of the Hyatt Regency Jacksonville Riverfront Hotel. There will be large screen TVs, great food and drink, gifts, prizes and chances to win with our fabulous football pool. See you there!

CONFERENCE LUNCHEON
(Sponsored by Entergy Nuclear)
MONDAY, FEBRUARY 4, 2013 • 11:30 AM – 1:00 PM
LOCATION: GRAND BALLROOM 5
Speaker:
• Audeen Fentiman, (Purdue Univ)
Each full conference registrant will receive a ticket for the luncheon. Additional tickets may be purchased on-site at the ANS registration desk for $55.00.

CASH BAR RECEPTION IN THE EXPO
(Sponsored by Exelon Nuclear)
MONDAY, FEBRUARY 4, 2013 • 6:00 PM – 7:30 PM
LOCATION: GRAND BALLROOM FOYER 5–8

CONFERENCE LUNCHEON
(Sponsored by Westinghouse)
TUESDAY, FEBRUARY 5, 2013 • 11:45 AM – 1:00 PM
LOCATION: GRAND BALLROOM 5
Speaker:
Donald R. Hoffman, (EXCEL)
Each full conference registrant will receive a ticket for the luncheon. Additional tickets may be purchased on-site at the ANS registration desk for $55.00.

CASH BAR RECEPTION IN THE EXPO
(Sponsored by L-3 MAPPS)
TUESDAY, FEBRUARY 5, 2013 • 6:00 PM – 7:30 PM
LOCATION: GRAND BALLROOM FOYER 5–8

CLOSING CONFERENCE LUNCHEON
WEDNESDAY, FEBRUARY 6, 2013 • 11:45 AM – 1:00 PM
LOCATION: GRAND BALLROOM 5
(Sponsored by Southern Nuclear Operating Company)
Speakers:
• David Igyarto, Vice President, Industry Training and Accreditation (INPO)
• Dr. Jane LeClair, Technical Program Co-Chair
• Patrick Berry, Technical Program Co-Chair (Director of Training, Entergy Nuclear)
Each full conference registrant will receive a ticket for the luncheon. Additional tickets may be purchased on-site at the ANS registration desk for $55.00.
SUNDAY, FEBRUARY 3, 2013

6:30 P.M. – 9:00 P.M. Opening Reception / SUPER BOWL XLVII (Sponsored by Excelsior College)

MONDAY, FEBRUARY 4, 2013

7:00 A.M. – 8:00 A.M. CONFERENCE BREAKFAST (Sponsored by Thomas Edison State College)
8:00 A.M. – 9:00 A.M. OPENING PLENARY SESSION
9:00 A.M. – 9:30 A.M. BREAK
9:30 A.M. – 11:30 A.M. TECHNICAL SESSION: Impact of Fukushima
TECHNICAL SESSION: IAEA/Developing Workforce/Newcomer Countries
TECHNICAL SESSION: Personnel Training/Qualification/Education—I
11:30 A.M. – 1:00 P.M. CONFERENCE LUNCHEON (Sponsored by Entergy Nuclear)
1:00 P.M. – 2:45 P.M. TECHNICAL SESSION: Nuclear Security and Safeguards Training and Education
TECHNICAL SESSION: Personnel Training/Qualification/Education—II
TECHNICAL SESSION: Engineering Education—I
2:45 P.M. – 3:00 P.M. BREAK
3:00 P.M. – 4:45 P.M. TECHNICAL SESSION: Leadership Development—I
TECHNICAL SESSION: Personnel Training/Qualification/Education—III
6:00 P.M. – 7:30 P.M. RECEPTION (Sponsored by Exelon Nuclear)

TUESDAY, FEBRUARY 5, 2013

7:00 A.M. – 8:00 A.M. CONFERENCE BREAKFAST (Sponsored by TVA)
8:00 A.M. – 9:45 A.M. TECHNICAL SESSION: Engineering Education—II
TECHNICAL SESSION: Personnel Training/Qualification/Education—IV
TECHNICAL SESSION: Nuclear Uniform Curriculum Program/Partnerships—I
9:45 A.M. – 10:00 A.M. BREAK
10:00 A.M. – 11:45 A.M. TECHNICAL SESSION: Leadership Development—II
TECHNICAL SESSION: Nuclear Uniform Curriculum Program/Partnerships—II
11:45 A.M. – 1:00 P.M. CONFERENCE LUNCHEON (Sponsored by Westinghouse)
1:00 P.M. – 2:45 P.M. TECHNICAL SESSION: Training for New Nuclear Plants
TECHNICAL SESSION: Nuclear Uniform Curriculum Program/Partnerships—III
TECHNICAL SESSION: Holding the Line on SAT—I
2:45 P.M. – 3:00 P.M. BREAK
3:00 P.M. – 4:45 P.M. TECHNICAL SESSION: Engineering Education—III
TECHNICAL SESSION: Simulator Changes in the Industry
TECHNICAL SESSION: Personnel Training/Qualification/Education—V
6:00 P.M. – 7:30 P.M. RECEPTION (Sponsored by L-3 MAPPS)

WEDNESDAY, FEBRUARY 6, 2013

7:00 A.M. – 8:00 A.M. CONFERENCE BREAKFAST (Sponsored by NextEra Energy)
8:00 A.M. – 9:45 A.M. TECHNICAL SESSION: Reactor Operator Licensing Focus Group—Challenges to Licensed Operator Training and Licensing—Panel
TECHNICAL SESSION: Engineering Education—IV
TECHNICAL SESSION: Nuclear Uniform Curriculum Program/Partnerships—IV
9:45 A.M. – 10:00 A.M. BREAK
10:00 A.M. – 11:45 A.M. TECHNICAL SESSION: Leadership Development—III
TECHNICAL SESSION: Personnel Training/Qualification/Education—VI
TECHNICAL SESSION: Holding the Line on SAT—II
11:45 A.M. – 1:00 P.M. CLOSING CONFERENCE LUNCHEON (Sponsored by Southern Nuclear Operating Company)
MONDAY, FEBRUARY 4, 2013, 7:00 A.M.–8:00 A.M.
Conference Breakfast
Grand Ballroom 5
(Sponsored by Thomas Edison State College)

MONDAY, FEBRUARY 4, 2013, 8:00 A.M.–9:00 A.M.
Opening Plenary Session
Grand Ballroom 4

WELCOME:
• Jane LeClair, Technical Program Co-Chair (Dean, School of Business and Technology, Excelsior College)
• Patrick Berry, Technical Program Co-Chair (Director of Training, Entergy Nuclear)

SPeakers:
• Audeen Fentiman, Program General Chair (Purdue Univ)
• Robert F. Willard (President and CEO of INPO)

MONDAY, FEBRUARY 4, 2013, 9:00 A.M.–9:30 A.M.
Refreshment Break
Grand Ballroom Foyer 5-8

MONDAY, FEBRUARY 4, 2013, 9:30 A.M.–11:30 A.M.
Impact of Fukushima
Grand Ballroom 8

Chair: Joel Bohlmann (INPO)

9:30 a.m.
Recommended Approach for Emergency Response Organization Training and Qualification, Post Fukushima, Jim Maddox (INPO)

9:50 a.m.
Fukushima: Operator Training for Accidents in Excess of Design Basis, Rob Brixey (Rob Brixey, Inc.)

10:10 a.m.
Fukushima’s Impact—Beyond the SAMGs and New Equipment Training, R. Steven White (GSE Systems Inc.)

10:30 a.m.
Lessons Learned from Emergency Preparedness Review Visits, Jim Maddox (INPO)

10:50 a.m.
Browns Ferry Operators Respond to Significant Natural Disaster—A Personal Perspective, Christopher L. Vaughn (TVA–Browns Ferry Nuclear Plant)

9:30 a.m.
Building University Nuclear Programs to Support the UAE Nuclear Energy Program, Philip A. Beeley (Khalifa Univ)

9:50 a.m.
Developing a Nuclear E&T Program—Cooperation between Newcomers and Experienced Nuclear Energy Countries a Success Story?, Petre Ghitescu, Gabriel Lazaro Pavel, (Unit “Politehnica” of Bucharest)

10:10 a.m.
INEC—International Nuclear Energy Certificate Program, Katovsky Karel (Bruno Univ of Technology), Paulo Barretto (Texas A&M Univ), Jiri Martinec (Bruno Univ of Technology), Radek Skoda (Czech Technical Univ in Prague)

10:30 a.m.
New Nuclear Energy Curriculum Development in Thailand, V. Bhanthumnavin (Shinawatra Univ), D. Bhanthumnavin (NIDA)

10:50 a.m.
Education, Workforce Planning and Nuclear Knowledge Management for Newcomer Countries, Zoltan Pasztory, Brian R. Molloy (IAEA)

11:10 a.m.
The Gulf Nuclear Energy Infrastructure Institute (GNEII): Two Years On, Philip A. Beeley (Khalifa Univ of Science, Technology and Research), Robert J. Finch (SNL), Abdelaziz M. Al-Madhoun (Khalifa Univ of Science, Technology and Research), Michael Schuller, David R. Boyle (Texas A&M), Amir H. Mohagheghi, Faraj Ghanbari, Adam D. Williams (SNL), Byung Koo Kim (Khalifa Univ of Science, Technology and Research)

Personnel Training/Qualification/Education—I
Grand Ballroom 7

Chair: Richard Holman (INL)

9:30 a.m.
Evaluating Alternate Paths During Task Performance, Marios Kafantaris (PSEG Nuclear)

9:50 a.m.
Advances in the Delivery of Nuclear Power Plant Simulation Based Learning, John R. Smith (Western Services Corp)

10:10 a.m.
Fully Interactive Virtual Labs for Training and Education, Imran Haddish, Rizwan uddin, Ye Li (Univ of Illinois)

10:30 a.m.
Improving Industrial Safety Performance, Frank Inzirillo (Indian Point Energy Center)

10:50 a.m.
Training Courses on Safety and Security of Radioactive Material Packages, Yung Liu, Ralph Fabian, Vik Shah, Ronald Pope (ANL), James Shuler (DOE)
MONDAY, FEBRUARY 4, 2013, 11:30 A.M.–1:00 P.M.
Conference Luncheon
Grand Ballroom 5
(Sponsored by Entergy Nuclear)

Speaker:
• Audeen Fentiman, (Purdue Univ)

MONDAY, FEBRUARY 4, 2013, 1:00 P.M.–2:45 P.M.
Nuclear Security and Safeguards Training and Education
Grand Ballroom 6
Chair: Jason Harris (Idaho State Univ)

1:00 p.m.
Preparing the Next Generation Nuclear Security Personnel, Patrick Lynch (Univ of Tennessee)

1:20 p.m.
Developing Next Generation Nuclear Security Personnel in Jordan, Dala’a Amawi (JAEC)

1:40 p.m.
International Nuclear Security Education Network (INSEN): Past Accomplishments and Future Plans, Jason T. Harris (Idaho State Univ), Christopher Hobbs (King’s College London), Dmitriy Nikonov (Univ of Georgia), Andrea Braunegger-Guelich (IAEA)

2:00 p.m.
Developing Nuclear Security Curriculum in Morocco, El Hassan Sayoury (Hassan 2nd Univ)

2:20 p.m.
The Development of Nuclear Security Education in South Africa, James Larkin (Univ of the Witwatersrand)

Personnel Training/Qualification/Education—II
Grand Ballroom 7
Chair: Jeff Place (INPO)

1:00 p.m.
Best Practices in Initial License Operator Candidate Preparation, Kostas Dovas (Exelon Generation)

1:20 p.m.
Managing the Masses with Quality, Robert Byford (Entergy)

1:40 p.m.
A Study on the Automation of Humans by Procedure and Effective Context Management, Kara A. Schmitt (Florida Institute of Technology), Thomas Waicosky (Catawba Nuclear Station)

2:00 p.m.
Improving Operator Fundamentals, Tammy S. Love (INPO)

2:20 p.m.
Advanced Learning Methods for the Nuclear Power Industry, Phil Polefrone (GSE Systems Inc.)

Engineering Education—I
Grand Ballroom 8
Chair: David Helling (Westinghouse)

1:00 p.m.
Future Risk Management Training, Nate Porter, Gary Sherwood (Xcel Energy Monticello Nuclear Plant)

1:20 p.m.
Building a Comprehensive Nuclear Education in Sweden, Anders Nordlund, Teodora Retegan, Christophe Demazère, Stefan Allard, Paolo Vinai, Christan Ekberg (Chalmers Univ of Technology)

1:40 p.m.
Nuclear Engineering Education at National Tsing Hua University in Taiwan, Ge-Ping Yu, Shiang-Huei Jiang (Tsing Hua Univ)

2:00 p.m.
CORONA Project as a European Cooperation Network, Hanna Tauru (Fortum)

2:20 p.m.
Education and Training in SARNET Network on Severe Accidents, Sandro Paci (Pisa Univ), Jean-Pierre Van Dorsselaere (IRSN)

MONDAY, FEBRUARY 4, 2013, 2:45 P.M.–3:00 P.M.
Refreshment Break
Grand Ballroom Foyer 5-8

MONDAY, FEBRUARY 4, 2013, 3:00 P.M.–4:45 P.M.
Leadership Development—I
Grand Ballroom 8
Chair: Russ Coon (Exelon)

3:00 p.m.
What it Means to be a Nuclear Training Leader, Julie Sickle (CENG)

3:20 p.m.
The Redesign/Refresh of INPO’s Leadership Seminars, William A. Russell (INPO)

3:40 p.m.
Shift Manager Professional Development, Thomas F. McElhinney (Entergy Nuclear-Pilgrim Station)

4:00 p.m.
Improving Leadership Skills Through Immersive Simulation, Cathy Brown (INPO), Kathy Larson (The Regis Company)

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Personnel Training/Qualification/Education—III
Grand Ballroom 7

Chair: Gregg Ludlam (Exelon)

3:00 p.m.
Perspectives on Improving Human Performance, Cathy Brown (INPO), Richard Holman (INL)

3:20 p.m.
Alleviating Redundancy Using EPRI’s Standardized Task Evaluations, Don Cullers (EPRI), Burl McCosh (INPO)

3:40 p.m.
Accelerating Comprehension and Improving Retention with 3D Interactive Visualization, Hal D. Paris, Chuck Kelly, Joe Ambrosino (TriLink Systems)

4:00 p.m.
Maximizing Your Dynamic Flow Loop, Kevin Stupak, Ken Milligan (Entergy)

MONDAY, FEBRUARY 4, 2013, 6:00 P.M.–7:30 P.M.
Cash Bar Reception in the Expo
Grand Ballroom Foyer 5-8
(Sponsored by Exelon Nuclear)

TUESDAY, FEBRUARY 5, 2013, 7:00 A.M.–8:00 A.M.
Conference Breakfast
Grand Ballroom Foyer 5
(Sponsored by TVA)

TUESDAY, FEBRUARY 5, 2013, 8:00 A.M.–9:45 A.M.
Engineering Education—II
Grand Ballroom 8

Chair: Jason Harris (Idaho State Univ)

8:00 a.m.
Development and Team-Teaching of “Computers and Nuclear Energy” Course for Non-Nuclear Engineering Students, Charles Kim (Howard Univ), Deborah Jackson (NRC), Peter Keiller (Howard Univ)

8:20 a.m.
Development of New EPRI Training Courses on Probabilistic Risk Assessment, Doug Hance, Stuart Lewis, Doug E. True (EPRI)

8:40 a.m.
Educational Activity of Kinki University Teaching and Research Reactor, Sin-ya Hohara, Kengo Hashimoto, Tetsuo Itoh (Kinki Univ Atomic Energy Research Institute)

9:00 a.m.
Fostering and Networking Nuclear Education: IAEA Activities, Zoltan Pasztor, M. Monica Shaffoni (IAEA)

Personnel Training/Qualification/Education—IV
Grand Ballroom 7

Chair: Patrick Berry (Entergy)

8:00 a.m.
Operator Generic Fundamentals, Kathryn T. Davis (INPO)

8:20 a.m.
Improving Marginal Performing Operators with Full-Circumference Assessments, Heather Davis (Nine Mile Point Nuclear Station), Cynthia DeVita-Cochrane (The Westwind Group, Inc.)

8:40 a.m.
The MISSISSIPPI Index, Dale Jennings (Hyerspring)

9:00 a.m.
Improving Licensed Nuclear Operator Medical Certification Requirements, George B. Rombold III (Scientech), Hironori Peterson (NRC)

9:20 a.m.
Applications of Simulation 3D Visualization, Raymond Dimitri-Hakim (L-3 Mapps)

Nuclear Uniform Curriculum Program/Partnerships—I
Grand Ballroom 6

Chair: Michael Desilets (Entergy)

8:00 a.m.
Are We There Yet? An NUCP Partnership Update, Robert M. Collins (Southern Nuclear Company/Plant Vogtle Units 3 & 4)

8:20 a.m.
Unique Collaborative NUCP Partnership Ensures Online Degree Remains Leading-Edge, Christine Carpenter (EPCE), Steven Gackstetter (Exelon Generation)

8:40 a.m.
Outreach to Stimulate Interest in STEM Education, J. W. Poston, V. G. Segovia, J. H. Haines, K. L. Peddicord (Texas A&M Univ)

TUESDAY, FEBRUARY 5, 2013, 9:45 A.M.–10:00 A.M.
Refreshment Break
Grand Ballroom Foyer 5-8

TUESDAY, FEBRUARY 5, 2013, 10:00 A.M.–11:45 A.M.
Leadership Development—II
Grand Ballroom 8

Chair: Julie Sickle (Constellation Energy)

10:00 a.m.
Training Manager Succession Planning at Entergy Nuclear, Patrick J. Berry (Entergy Nuclear)
Technical Sessions

10:20 a.m.
Developing Leaders for Superior Performance in Nuclear Power, Joseph Carella (Eckerd College Leadership Development Institute), Christopher J. Schwarz (Entergy Arkansas Nuclear One)

10:40 a.m.
Helping Individuals and Professional Societies Develop the Next Generation of Nuclear Leaders, Debra Hager (Duke Energy)

Nuclear Uniform Curriculum Program/Partnerships—II
Grand Ballroom 6
Chair: Richard Coe (Thomas Edison State College)

10:00 a.m.
RCNET Efforts to Enhance College Training Programs by Introducing 21st Century Learning Styles and Tools into the College Classroom, Kevin Cooper (RCNET)

10:20 a.m.
Tennessee Valley Authority Internship Program, Susan Stout, Shunyale Griffin (TVA)

10:40 a.m.
Training and Education Activities Within the Frame of EURATOM, A. Bucalossi (European Commission)

11:00 a.m.
Fueling the Local Industry Through the Summer Nuclear Science Institutes at South Carolina State University, April Hutton-Moorer, Kenneth Okafor, Zheng Chang, Musa Danjaji (South Carolina State Univ)

TUESDAY, FEBRUARY 5, 2013, 11:45 A.M.–1:00 P.M.
Conference Luncheon
Grand Ballroom 5
(Sponsored by Westinghouse)

Speaker:
• Donald R. Hoffman, (EXCEL)

TUESDAY, FEBRUARY 5, 2013, 1:00 P.M.–2:45 P.M.
Training for New Nuclear Plants
Grand Ballroom 7
Chair: William Hendy (INPO)

1:00 p.m.
New Nuclear Plant Training Challenges, Charlie D. Nesbitt (Vogtle Units 3&4)

1:20 p.m.

1:40 p.m.
Initial Accreditation—Industry Update, Michael Llewellyn (INPO)

Nuclear Uniform Curriculum Program/Partnerships—III
Grand Ballroom 6
Chair: Renee Milner (TVA)

1:00 p.m.
Regional Center for Nuclear Education and Training Support of the Nuclear Uniform Curriculum Program, Natalia Chekhovskaya Kearney (Regional Center for Nuclear Education and Training)

1:20 p.m.
Training the Next Generation of Environmental Restoration and Nuclear Industry Workforce, Leonel E. Lagos (Florida International Univ)

1:40 p.m.
Maturing 18-25 Year Olds to Work in the Nuclear Industry, Bruce A. Meffert (Linn State Technical Coll)

2:00 p.m.
College Credit for Qualified Training and Testing: A Winning Partnership, Thomas Devine (Thomas Edison State Coll)

Holding the Line on SAT—I
Grand Ballroom 8
Chair: Adrian Skinner (Excelsior College)

1:00 p.m.
Sustainability of Nuclear Training Programs—Focused Leadership Actions, Bryce Shriver (Three Seven Research, Inc)

1:20 p.m.
Leadership Lessons Learned from Back-to-Back Probations, Stephanie P. Banker (Callaway Energy Center)

1:40 p.m.
Community of Practice, Dea Holman (INPO)

2:00 p.m.
Holding the Line on the Systematic Approach to Training, Robert L. Sandstrom (Focus Forward Performance Solutions LLC)

TUESDAY, FEBRUARY 5, 2013, 2:45 P.M.–3:00 P.M.
Refreshment Break
Grand Ballroom Foyer 5-8

TUESDAY, FEBRUARY 5, 2013, 3:00 P.M.–4:45 P.M.
Engineering Education—III
Grand Ballroom 8
Chair: Gilbert Brown (Univ of Massachusetts–Lowell)
3:00 p.m.  The Advanced Test Reactor National Scientific User Facility Education Program, J. B. Benson, T. R. Allen, F. M. Marshall (INL)

3:20 p.m.  The Engineering Expertise Matrix: Identification and Quantification of Knowledge Gaps, Matthew Hiatt, Robert McNiel (STP Nucl Operating Co)

3:40 p.m.  Nuclear Energy Globalization: Ways to Meet Non-Proliferation Challenges Through University Education, A. Vorobieva (IATE Obninsk), E. F. Kryuchkov (MEPHI, Moscow)

4:00 p.m.  Cooperation Between European Union and Russian Universities in Nuclear Education and Training, Petre Ghitescu (Univ Politehnica Bucharest)

4:20 p.m.  Web-Based Heat-Transfer Modules for Nuclear Engineering Undergraduate Education, Ratan Kumar, Thiagarajan Raman, Nikhil Dhiman (Univ of Texas at Arlington)

Simulator Changes in the Industry  
Grand Ballroom 6  
Chair: William Hendy (INPO)

3:00 p.m.  Expanding the Use of Glass Panel Simulators, Jeff Mercer (Southern Nuclear)

3:20 p.m.  Nuclear Power Plant Replica Simulator Scenario Based Testing Implementation, Shawn Quick (Exelon Generation)

3:40 p.m.  Severe Accident Training in Real-Time, Gregory T. Hayes (Corys Thunder Inc)

4:00 p.m.  Dynamic Presentations of TRACE/PARCS Analysis for Plant Transients, Jung-Hua Yang (Natl Tsing Hua Univ), Jong-Rong Wang, Hao-Tzu Lin (INER), ChiaYing Chang, ChunKuan Shih (Natl Tsing Hua Univ)

4:20 p.m.  Coupling of MELCOR Severe Accident Code to a Full Scope Training Simulator, Bernard Panfil (CORYS Thunder Inc), Robert Sanders (AREVA NP)

Personnel Training/Qualification/Education—V  
Grand Ballroom 7  
Chair: Robert Fletcher (Entergy)

3:00 p.m.  Entergy Nuclear Material Handling Training Program, Michael K. Jessen (Entergy Nuclear)

3:20 p.m.  SOER 10-2: Ontario Power Generation’s Blended Approach to SOER 10-2 Training, Alan Shiever, Louise Hastie (OPG)

3:40 p.m.  Incorporating Cognitive Training in Simulation Based Learning for Performance Optimization, Melanie Hill (Interactive Visualization Center Greenville)

TUESDAY, FEBRUARY 5, 2013, 6:00 P.M.—7:30 P.M.  
Cash Bar Reception in the Expo  
Grand Ballroom Foyer 5-8  
(Sponsored by L-3 MAPPS)

WEDNESDAY, FEBRUARY 6, 2013, 7:00 A.M.—8:00 A.M.  
Conference Breakfast  
Grand Ballroom Foyer 5  
(Sponsored by NextEra Energy)

WEDNESDAY, FEBRUARY 6, 2013, 8:00 A.M.—9:45 A.M.  
Reactor Operator Licensing Focus Group—Challenges to Licensed Operator Training and Licensing—Panel  
Grand Ballroom 6  
Chair: Richard Pelton (NRC)

In this session, the panelists will discuss challenges to training and licensing operators including control room interfaces, control room conduct of operations, training program accreditation, simulator availability and certification, licensed operator training and requalification, licensed operator examiner training; licensed operator instructor training and certification; and international training and licensing experiences. Each participant will make a short presentation followed by a question and answer period.

Panelists:
• Richard Pelton (NRC)
• Michael Junge (NRC)
• Jack McHale (NRC)
• Andy Barbee (V. C. Summer)
• Mike Llewellyn (INPO)

Engineering Education—IV  
Grand Ballroom 8  
Chair: Sherrie Cotton (Entergy Nuclear)

8:00 a.m.  Distance-Enabled Graduate Nuclear Engineering at the University of Pittsburgh, Larry R. Foulke, Janet L. Littrell (Univ of Pittsburgh)
8:20 a.m.
Engaging First Year Students: North Carolina State’s Nuclear Engineering Undergraduate Outreach, Lisa Marshall, Mohamed Bourham (NCSU)

8:40 a.m.
The Systems Engineering Initiative—An Innovative Approach to Experiential Learning, Cable Kurwitz, John Poston, Kenneth Peddicord (Texas A&M Univ)

9:00 a.m.
A Generational Influence, Shawn C. Howry, David Wheeler (SNL)

Nuclear Uniform Curriculum Program/Partnerships—IV
Grand Ballroom 7
Chair: Elizabeth McAndrews-Benavides (NEI)

8:00 a.m.
U.S. Nuclear Workforce Development: An Update on the Nuclear Uniform Curriculum Program, Elizabeth McAndrew-Benavides (NEI), Audrey Cate (INPO)

8:20 a.m.
Filling the Critical Nuclear Quality Systems Workforce Gap, Susan A. Winsor (Aiken Technical College), Furman Millett (V. C. Summer Nuclear Station)

8:40 a.m.
Educating the Nuclear Workforce of the Future in Texas, J. W. Poston, R. C. Kurwitz, G. Tsvetkova, K. L. Peddicord (Texas A&M Univ)

9:00 a.m.
Prior Learning Assessment — Getting College Credit for Learning Outside the Traditional Academic Environment, Richard P. Coe (Thomas Edison State Coll)

WEDNESDAY, FEBRUARY 6, 2013, 9:45 A.M.–10:00 A.M.
Refreshment Break
Grand Ballroom Foyer 5-8

WEDNESDAY, FEBRUARY 6, 2013, 10:00 A.M.–11:45 A.M.
Leadership Development—III
Grand Ballroom 8
Chair: Michael Desilets (Entergy)

10:00 a.m.
Developing Training Leaders at Entergy, Mike Desilets, Sherri Cotton (Entergy Nuclear)

10:20 a.m.
Advanced Operations Overview for Managers Training Program, George Bereznai (Univ of Ontario Inst of Tech), Greg Cornett, Hassan Nivi (OPG)

10:40 a.m.
Developing Station Leaders, Peter A. McSparran (APS)

Personnel Training/Qualification/Education—VI
Grand Ballroom 7
Chair: Jane LeClair (Excelsior College)

10:00 a.m.
Innovative Design and Implementation of Process Flow Trainer, Marvin L. Chase (Entergy)

10:20 a.m.
From Fundamentals to New Nuclear Plants—Interactive-3D is the Most Effective Path to Mastery, Michael Lerg (GSE Systems Inc.)

10:40 a.m.
NANTeL Human Performance Re-Design, Maureen Kunapareddy (INPO)

11:00 a.m.
Educational Path from an Operator to a Manager for the Non-Traditional Student, Jane LeClair, Andrew Wheeler, Adrian Skinner (Excelsior Coll)

Holding the Line on SAT—II
Grand Ballroom 6
Chair: Julie Sickle (CENG)

10:00 a.m.
Instructional Technologist Job Familiarization Guide, Julie Sickle (CENG)

10:20 a.m.
Measuring Training Effectiveness: Depth is More Important than Breadth, Jacob H. Kluch (Exelon Generation)

10:40 a.m.
Maintaining Accountability in a Non-Traditional Nuclear Engineering Technology Program Through Outcomes Assessment Plan, Jane LeClair, Li-Fang Shih, Adrian Skinner (Excelsior Coll)

11:00 a.m.
The Affective Learning Domain: The Next Frontier in Nuclear Training, Audrey C. Cate (INPO), Bryce L. Shriver (Three Seven Research, Inc)

WEDNESDAY, FEBRUARY 6, 2013, 11:45 A.M.–1:00 P.M.
Closing Conference Luncheon
Grand Ballroom 5
(Sponsored by Southern Nuclear Operating Company)

Speakers:
• David Igyarto, Vice President, Industry Training and Accreditation (INPO)
• Dr. Jane LeClair, Technical Program Co-Chair
• Patrick Berry, Technical Program Co-Chair (Director of Training, Entergy Nuclear)
American Society of Mechanical Engineers  
New York, NY (Booth 21)
ASME is a not-for-profit membership organization that enables collaboration, knowledge sharing, career enrichment, and skills development across all engineering disciplines, toward a goal of helping the global engineering community develop solutions to benefit lives and livelihoods. Founded in 1880 by a small group of leading industrialists, ASME has grown through the decades to include more than 120,000 members in over 150 countries worldwide.

Bismarck State College National Energy Center of Excellence  
Bismarck, ND (Booth 31)
Bismarck State College’s National Energy Center of Excellence offers online training for the nuclear energy industry. An associate degree in Nuclear Power Technology with an option to transfer into the Bachelor of Applied Science degree in Energy Management is available entirely online. Visit our website at bismarckstate.edu/energy for more information.

CORYS Thunder, Inc.  
St. Marys, GA (Booths 1 & 2)
CORYS Thunder, Inc. offers the most sophisticated products and technology in the simulation industry. CTI engineers pioneered Windows and PC based simulation technology as well as the THOR advanced thermal hydraulics and neutronics models. Most of the nuclear plant training simulators in the U.S., as well as several in Europe, rely on CORYS Thunder technology to meet critical training simulator fidelity, reliability, and training requirements.

The Eckerd College/Leadership Development Institute  
St. Petersburg, FL (Booth 41)
The Eckerd College Leadership Development Institute (LDI), an associate of the Center for Creative Leadership (CCL®) since 1981, offers high-quality, assessment-based leadership programs and services to many of the nation’s largest companies. LDI has worked with a variety of nuclear power stations to improve overall performance and has designed and implemented consultations and training programs in the areas of leadership development, refueling outage performance and team integration.

Excelsior College  
Albany, NY (Booth 30)
Excelsior College’s ABET accredited online Bachelor of Science in Nuclear Engineering Technology allows transfer of up to 52 credits from Nuclear Utility Accredited Programs, maximizing students’ training. Excelsior also boasts a 2 year online Associate in Science in Nuclear Technology program which prepares students to move into the utility work force. Accredited by the Middle Association of Colleges and Schools, Excelsior is host to the first virtual student chapter of the American Nuclear Society.

Focus Learning Corporation  
San Luis Obispo, CA (Booth 10)
FOCUS Learning Corporation is the producer of the VISION Training and Performance Support System. VISION is a highly evolved suite of software modules used by training organizations since 1985 to design, develop, deploy and maintain enterprise training systems in high consequence industries where human performance is the critical ingredient to safe and cost-effective operations.

GSE Systems  
Sykesville, MD (Booths 28 & 29)
We are a next-generation virtual simulation, simulation training, and engineering consulting services provider applying a world of experience to help you achieve the performance you imagine. GSE is a world leader in real-time, high-fidelity simulation, providing a wide range of simulation, training and engineering solutions to the energy industry. Our comprehensive and modular solutions help customers achieve performance excellence in design, training and operations. GSE’s products and services are tailored to meet specific client requirements such as scope, budget and timeline.
Hyperspring Training & Development
Madison, AL (Booth 27)
Hyperspring Training & Development, LLC is a comprehensive training delivery and material development company. Our workforce of experienced nuclear industry professionals strives to both support and advance the ever evolving energy industry through the innovative use of technology. We focus on improving the existing safety, performance, and efficiency of both nuclear and non-nuclear generating facilities worldwide while preparing for the next generation of plant technology.

Hyperspring, can ensure that training organizations have access to modern and cutting-edge training materials, highly qualified and adept personnel, and the most current and capable technologies. Training material development, staff augmentation services, and operations support are the core of Hyperspring’s business and success. Hyperspring personnel are industry experts using the SAT-ADDIE processes and site specific knowledge to correctly identify areas for improvement to produce individualized solutions.

Hyperspring, LLC is proud to announce being awarded multiple contracts to conduct Generic Fundamentals Examination training courses as well as Senior Reactor Operator Certification courses to several large fleet training organizations. These industry leading cost effective courses are offered as 16 week ANSI 3.1 Management SRO Certification courses or 36 week SRO Certification courses. Additionally, beginning in 2013 Hyperspring will offer an innovative one week candidate selection course to improve ILT throughput nationwide.

Hyperspring Corporate Office is located in Madison, Alabama with offices in New Jersey, Tennessee and Mississippi.

International Programs, Argonne National Laboratory
Argonne, IL (Booth 22)
The International Programs at Argonne National Laboratory administers a U.S. support program to the International Atomic Energy Agency (IAEA), focusing on its work promoting peaceful uses of nuclear technology. The International Programs is divided into four primary parts: Training Courses, Fellowships, Meeting Nominations, and Careers.

L3-MAPPS
Montreal, Quebec, Canada (Booths 33 & 34)
When you’re looking for increased reliability in your power plant’s performance, you can count on L-3 MAPPS’ simulation experience to get you there. Our dedication to true-to-life power plant simulators ensures that your personnel have the knowledge required to safely and efficiently operate your power plant. Providing more than just training devices, our simulator solutions - powered by L-3 MAPPS’ unparalleled OrchidTM suite of simulation products - will elevate your engineering team to new heights in addressing plant design issues, procedural deficiencies and reliability improvements.

Linn State Technical College Nuclear Technology
Mexico, MO (Booth 24)
The Linn State Technical College Nuclear Technology program offers the student a unique, challenging opportunity to obtain technical training towards an Associate of Applied Science degree in Nuclear Technology with an emphasis in Instrumentation & Controls, Radiation Protection, or Reactor Operations.

NWI Consulting, LLC
Knoxville, TN (Booth 9)
NWI Consulting, LLC is a professional consulting firm specializing in power generation performance improvement services, specialized learning interventions, computer-based training, organizational development, accreditation renewal/recovery, and professional staff augmentation. NWI has a broad portfolio of U.S. and international clients in the electric generation industry and is headquartered in Knoxville, TN. NWI's power plant services includes supporting such areas as Operations, Training, Outage Management, Nuclear Oversight, Performance Improvement, Engineering, Maintenance, Radiation Protection, Chemistry and Emergency Preparedness. NWI has assisted clients in other more specialized efforts including Leadership/Management Development, Executive Coaching, Conflict Resolution, Multi-Discipline Assessments (including Organizational Effectiveness and Safety Culture), Root Cause Analyses, NRC 95-002 & 3 Preparations and specialized Safety Analyses (50.59).

Regional Center for Nuclear Education and Training
Fort Pierce, FL (Booth 35)
NextEra Energy and Florida Power & Light are pleased to sponsor the Regional Center for Nuclear Education and Training booth.

The Regional Center for Nuclear Education and Training (RCNET) is a National Science Foundation (NSF) Advanced Technology Education (ATE) Center focused on making sure the demand for skilled nuclear technicians is met in a standardized and systematic way. RCNET, headquartered at Indian River State College (IRSC), is a consortium of 40 colleges and universities, 27 industry partners, American Nuclear Society (ANS), Center for Energy Workforce Development (CEWD), Nuclear Energy Advisory Committee (NEAC), Nuclear Regulatory Commission (NRC), Nuclear Energy Institute (NEI), Institute of Nuclear Power Operations (INPO), Department of Energy (DOE), Oak Ridge National Laboratory (ORNL), and the U.S. Navy. This booth features products, materials, and information on services offered by RCNET to the nuclear community.

TELETRIX
Pittsburgh, PA (Booth 36)
At Teletrix, we proudly endeavor to create innovative solutions in radiation detection training simulators that educate, prepare and protect the world.

Teletrix simulators deliver superior realism in radiation training. This realism effectively educates and prepares people to perform skillfully, enhancing job safety, plant safety and ultimately protecting the public and environment.
Thomas Edison State College
Trenton, NJ (Booth 32)
Thomas Edison State College is one of New Jersey’s 12 senior public institutions of higher education and one of the oldest institutions in the country designed specifically for self-directed adults. The College provides flexible, high quality, collegiate learning opportunities for working adults and offers degree programs and certificates in more than 100 areas of study. The College has pioneered the use of the latest technology in its degree programs and is recognized by Forbes magazine as one of the top 20 schools in the nation in the use of technology to create learning opportunities for adult learners. Thomas Edison State College is accredited by Middle States Association of Colleges and Schools and its entire academic program is geared to the unique needs of self-directed adults who must juggle family and career responsibilities.

TriLink Systems
Virginia Beach, VA (Booth 23)
TriLink Systems offers 3D Interactive Animations utilizing its patented 3D visualization technology, Bridgeworks®, to enhance Nuclear Training Programs. TriLink employs experienced nuclear trainers and engineers in the design process to ensure our most important design objective of integrating our 3D technology into your existing current training curriculum verses attempting to redesign your curriculum to fit into our technology. Bridgeworks® focuses on how a complicated component or systems operates visually to accomplish your existing learning objectives in the most efficient manner. “Visualize Your World”

University of Missouri Research Reactor (MURR)
Columbia, MO (Booth 7)
MU/MURR is closely involved in INPO ACAD 08-006, ACAD 10-002, and other criteria compliant curricula development for energy industry and workforce training. Partnering with the Center for Energy Workforce Development, a web-based, instructor-led ANSI-approved Energy Industry Fundamentals class – which includes an Energy Industry Math Skills refresher – has been is being deployed for energy industry workforce development needs – including pathways to nuclear technical education (DOL SESP GJ-19902-010-60-A-29).

Western Services Corporation
Frederick, MD (Booths 42 & 43)
WSC, headquartered in Frederick, Maryland, is a global simulation and services company. WSC’s primary focus is the development and deployment of advanced 3KEYSOFTWARE® Simulation Technology, which consists of the 3KEYMASTERTM simulation platform and a suite of unified graphical modeling tools for operator training simulators for all type of power and process plants.

Increasingly WSC 3KEYMASTERTM software is being deployed for Simulation Assisted Engineering (SAE). Leading companies are now embedding WSC’s technology in their engineering processes to address the challenges of improving quality up-front, and reducing complex engineering development and commissioning cycles.

To support the increasing deployment of e-learning, WSC has developed 3KEYSTUDENTTM, which makes state-of-the-art simulator training available to a student’s PC anywhere in the world via the Internet. WSC recently added the ability to embed Severe Accident Analysis modeling in 3KEYMASTER by coupling MELCOR, a product of Sandia National Laboratories, or EPRI’s MAAP5, with 3KEYRELAP5-RT.

WSC is committed to continually improving the capabilities of its technology and widening the applicability of its simulation technology to complex systems. To further this goal, WSC has a vigorous market-focused R&D program and a strong commitment to customer service.

Western Technical Services, Inc.
Goodyear, AZ (Booth 26)
Western Technical Services, Inc. offers a wide range of consulting services, including Operations and Training Management mentoring, plant operations training, operator professional development, training material development, examination and exam bank development, SRO Certification training, ISFSI training program development, and turn-key GFES program administration. Western Technical also designs and implements site specific Simulator Instructor training. As the industry’s leading developer of NRC license and facility audit examinations, we maintain SRO expertise in both PWR and BWR design. Our Nu-SECTM exam generation software provides the ability to efficiently generate initial license, operator requalification, and generic fundamentals examinations using the industry’s largest and most comprehensive NRC exam bank.

Westinghouse Electric Company
Pittsburgh, PA (Booth 5)
Westinghouse Electric Company is a leading worldwide supplier of commercial nuclear electric generation services and technology. Our more than 14,000 employees provide a wide range of nuclear products and services including training and learning services, nuclear fuel, plant service and maintenance, instrumentation and control, and advanced nuclear plant designs. Our world headquarters is located in Cranberry Township, Butler County, Pennsylvania, United States. With the world’s largest base of installed nuclear power plants, Westinghouse nuclear technology will help provide future generations with safe, clean and reliable electricity.

The Westwind Group, Inc.
Wilmington, NC (Booth 20)
The Westwind Group, Inc. is a multifaceted consulting firm specializing in training and performance support solutions, technical and information technology services, and industrial/organizational psychology and management support.

Our mission is to equip our clients with solutions that measurably contribute to productivity in the work place by: Building Collaborative Value; Evaluating, Supplementing, or Developing Processes & Procedures that Ensure Quality; Incorporate Best Practices, & Emphasize Management Standards & Expectations; Applying a Systematic Approach; Developing Client In-House Skills to Maintain & Extend the Solution.

The Westwind Group seeks to provide clients with services that innovate and adapt to develop new solutions. Our staff is focused on working efficiently, managing costs and building relationships. We have extensive experience and can provide services that result in turn-key solutions or be engaged on a staff augmentation basis.
Hyatt Regency Jacksonville
Riverfront

DIRECTIONS
From Jacksonville International Airport, take I-95 south to exit 117, go east (left) on Union Street, then south (right) on Newnan and east (left) on Coastline.

From I-95 northbound, take exit 107 (Main Street/Prudential Drive) and follow signs to Main Street; go over the bridge onto Newnan Street, then left on Coastline.