Conference on Nuclear Training and Education



An International Forum for the Discussion of Advances, Challenges and Learning in Nuclear Energy Training and Education

Official Program



February 1-4, 2015 Hyatt Regency-Riverfront Jacksonville, FL



CONTE Conference on Nuclear Training and Education

Our most sincere thanks to the following contributors for their support of the 2015 CONTE Conference on Nuclear Training and Education

Platinum Sponsorship



ANS Education, Training and Workforce Development Division



Schedule at a Glance

SUNDAY SCHEDULE A	t a Glance	LOCATION
3:00 - 8:00 p.m.	Registration	Grand Ballroom Foyer
6:30 - 9:00 p.m.	Opening Reception, Super Bowl XLIX and Expo Sponsored by Excelsior College and Exelon Generation	Grand Ballroom Foyer
Monday Schedule	at a Glance	Location
7:00 - 8:00 a.m. 7:00 a.m 7:00 p.m. 7:30 a.m 6:00 p.m. 8:00 - 9:00 a.m. 9:00 - 9:30 a.m. 9:30 - 11:30 a.m.	Breakfast Sponsored by Entergy Nuclear Expo Registration Opening Plenary Session Break Technical Sessions • Operator Training—I	Grand Ballroom Foyer Grand Ballroom Foyer Grand Ballroom Foyer Grand Ballroom 4 Grand Ballroom Foyer Grand Ballroom 6
11:30 a.m 1:00 p.m. 1:00 - 2:45 p.m.	 Nuclear Uniform Curriculum Program Overview–Panel IAEA/Developing Workforce/Newcomer Countries—I 	Grand Ballroom 7 Grand Ballroom 8 Grand Ballroom 4 Grand Ballroom 6 Grand Ballroom 7

www.ans.org

Schedule at a Glance

MONDAY SCHEDULE A	at a Glance (Cont'd)	LOCATION
	Personnel Training/Qualification/Education—I	Grand Ballroom 8
2:45 - 3:00 p.m.	Break	Grand Ballroom Foyer
3:00 - 4:45 p.m.	Technical Sessions	,
1	• Leadership Development—I	Grand Ballroom 6
	• Use of Technology in Training—I	Grand Ballroom 8
3:00 - 8:00 p.m.	Technical Sessions	
	Professional Development for Nuclear Uniform Curriculum Program	
	Members–Panel	Grand Ballroom 7
6:00 - 7:30 p.m.	Reception Sponsored by Florida Power and Light Co.	Grand Ballroom Foyer
TUESDAY SCHEDULE A	t a Glance	LOCATION
7:00 - 8:00 a.m.	Breakfast Sponsored by Duke Energy	Grand Ballroom Foyer
7:00 a.m 7:00 p.m.	Expo	Grand Ballroom Foyer
7:30 a.m 6:00 p.m.	Registration	Grand Ballroom Foyer
8:00 - 9:45 a.m.	Technical Sessions	
	Personnel Training/Qualification/Education—II	Grand Ballroom 6
	Operator Licensing and Training–Panel	Grand Ballroom 7
	Nuclear Security Training	Grand Ballroom 8
9:45 - 10:00 a.m.	Break	Giuna Duniooni o
10:00 - 11:45 a.m.	Technical Sessions	
	• Leadership Development—II	Grand Ballroom 6
	• Affective Domain (Best of CONTE 2013)–Panel	Grand Ballroom 7
	• Use of Technology in Training—II	Grand Ballroom 8
11:45 a.m 1:00 p.m.	Lunch ANS Robert L. Long Training Excellence Award	
	Presented to Charlie Nesbitt	
	Sponsored by Thomas Edison State College	Grand Ballroom 5
1:00 - 2:45 p.m.	Technical Sessions	
-	• INPO Accreditation Topics	Grand Ballroom 6
	• Cyber Nuclear Research Opportunities–Panel	Grand Ballroom 7
	• Engineering Training and Education—II	Grand Ballroom 8
2:45 - 3:00 p.m.	Break	
3:00 - 4:45 p.m.	Technical Sessions	
-	• IAEA/Developing Workforce/Newcomer Countries—II	Grand Ballroom 6
	Academic Diversity Enrollments–Panel	Grand Ballroom 7
	Personnel Training/Qualification/Education—III	Grand Ballroom 8
6:00 - 7:30 p.m.	Reception Sponsored by L3-MAPPS	Grand Ballroom Foyer
WEDNESDAY SCHEDU	le at a Glance	LOCATION
7:00 - 8:00 a.m.	Breakfast Sponsored by Westinghouse Electric Co.	Grand Ballroom Foyer
7:00 a.m 1:30 p.m.	Expo	Grand Ballroom Foyer
7:30 a.m 12:00 p.m.	Registration	Grand Ballroom Foyer
8:00 - 9:45 a.m.	Technical Sessions	Grand Daniooni Foyer
	• Operator Training—II	Grand Ballroom 6
	• Who Really Owns Training?–Panel	Grand Ballroom 7
	Personnel Training/Qualification/Education—IV	Grand Ballroom 8
9:45 - 10:00 a.m.	Break	
10:00 - 11:45 a.m.	Technical Sessions	
	• Systematic Approach to Training	Grand Ballroom 6
	• Gulf Nuclear Energy Infrastructure Institute–Panel	Grand Ballroom 7
	• Use of Technology in Training—III	Grand Ballroom 8
11:45 a.m 1:00 p.m.	Closing Luncheon Sponsored by Southern Nuclear Operating Company	Grand Ballroom 5

NOTICE FOR SPEAKERS:

All Speakers and Session Chairs must check in at the ANS Registration Desk located in the Grand Ballroom Foyer, second level of the Hyatt Regency Jacksonville Riverfront Hotel, during registration hours.

MEETING REGISTRATION

Meeting and Speaker Registration will be located at the ANS Registration Desk 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 hours listed below.

The Full Conference Registration fee includes admission to all technical sessions, Opening Reception, Breakfast and Lunches Monday through Wednesday, Receptions Monday and Tuesday and the conference proceedings.

The Student Registration fee requires a full time student I.D.

Meeting registration is required for all attendees, and speakers. Badges are required for admission to all plenaries, technical sessions and events.

REGISTRATION HOURS

Sunday, February 1 • 3:00 – 8:00 p.m. Monday, February 2 • 7:30 a.m. – 6:00 p.m. Tuesday, February 3 • 7:30 a.m. – 6:00 p.m. Wednesday, February 4 • 7:30 a.m. – 12:00 p.m.

SPECIAL EVENTS

Opening Reception, Super Bowl XLIX • Sunday, February 1, 2015 • 6:30 - 9:00 p.m

Sponsored by Excelsior College and Exelon Generation

One ticket to the Opening Reception is included in the full meeting registration fee. Additional tickets can be purchased in advance or on-site at the ANS Registration desk for \$85.00.

The reception is located in the Grand Ballroom Foyer of the Hyatt Regency Jacksonville Riverfront Hotel. There will be large screen TVs, football pool, great food and drink. See you there!



EXHIBITORS

Applied Technical Systems, Inc.	Booth 23	L-3 MAPPS	Booths 33 & 34
Bismarck State College	Booth 35	National Cybersecurity Institute at Excelsior College	D 1 44
Corys Thunder Inc.	Booths 1 & 2	Ũ	Booth 30
Excelsior College	Booth 19	Nuclear Training Institute	Booth 43
Florida Power & Light Company/Regional		Ontario Power Generation	Booth 26
Center for Nuclear Education and Training	Booth 38	TECNATOM	Booth 31
Focus Learning Corporation	Booth 25	TELETRIX	Booth 29
GSE Systems, Inc.	Booth 2 8	The Westwind Group, Inc	Booth 8 & 9
Hyperspring, LLC	Booth 27	Thomas Edison State College	Booth 32
Intelliqlik	Booth 36	Western Services Corporation	Booth 42
Kiewit Power Nuclear Co.	Booth 37	Westinghouse Electric Company	Booth 11

www.ans.org

CONTE 2015

CONFERENCE ON NUCLEAR TRAINING AND EDUCATION "An International Forum for the Discussion of Advances, Challenges and Learning in Nuclear Energy Training and Education"



<u>General Chair:</u> Michael Balduzzi

TVA

Technical Program Co-Chair:

Jane LeClair National Cybersecurity Institute at Excelsior College **Technical Program Co-Chair:**

Gregg Ludlam Exelon

Technical Program Committee
Dr. Sukesh Aghara, University of Massachusetts – Lowell
Dr. Philip Beeley, Khalifa University
Patrick Berry, Entergy
Dr. Gilbert Brown, University of Massachusetts – Lowell
Dr. Richard Coe, Thomas Edison State College
Russell Coon, Exelon
Michael Desilets, INPO
Dr. Allen L. Garner, Purdue University
Dr. Jason Harris, Idaho State University
David Helling, Westinghouse
Shawn Howry, Sandia National Laboratories
Dr. Michael Johnson, Excelsior College
Dr. Jane LeClair, National Cybersecurity Institute at Excelsior College
Tammy Love, INPO
Gregg Ludlam, Exelon
Michael Marler, Independent Consultant
Elizabeth McAndrew-Benavides, Nuclear Energy Institute
Brian Molloy, IAEA
Brian C. O'Donnell, INPO

Learn about: Establishing the

Current Nuclear Energy Issues and Challenges

The Status of Nuclear Energy in Newcomer Countries New Education & Training Techniques Training Conscience

Developing the Future Workforce

Leadership Development

Innovations in Education and Training Delivery

Education and Industry Partnering

Emerging Industry Trends in Training

CONTE 2015 Conference on Nuclear Training and Education: Official Program

Technical Sessions: Monday, February 2

Conference Breakfact 7, 9 and Conf B II and F		
Conference Breakfast 7 - 8 a.m. – Grand Ballroom Foyer	Nuclear Uniform Curriculum Program Overview–Panel	
Opening Plenary 8:00 - 9:00 a.m.	Chair: Audrey Cate (INPO)	
Opening Plenary Session	Grand Ballroom 7	
Grand Ballroom 4	9:30 a.m.	
8:00 a.m. Welcome:	Representatives from the Nuclear Energy Institute, the Regional Center for Nuclear Education and Training	
Jane LeClair (Technical Program Cochair–Excelsior College), Gregg Ludlam (Technical Program Cochair–Exelon Nuclear)	(RCNET) and Institute of Nuclear Power Operations will discuss the current state and future plans of the Nuclear Uniform Curriculum Program.	
 Speakers: Introduction: Michael Balduzzi (General Chair–TVA) Brian Molloy (Technical Head–Human Resources IAEA) 	 Panelists Elizabeth McAndrew-Benavides (NEI) Other panelists to be announced. 	
Refreshment Break 9 - 9:30 a.m. – Grand Ballroom Foyer		
Technical Sessions 9:30 - 11:30 a.m.	IAEA/Developing Workforce/Newcomer Countries—I	
Operator Training—I	Chair: Brian Molloy (IAEA)	
Chair: Patrick Berry (Entergy)	Grand Ballroom 8	
Grand Ballroom 6	9:30 a.m.	
9:30 a.m. Initial License Program Management and Oversight, Kostas	Social Innovation in Training, Learning and Development, Elizabeth Smith (<i>EDF Energy</i>), Neil Carhart (<i>Bristol Univ</i>)	
Dovas, Ralph J. Frederes (Exelon Generation)	9:50 a.m.	
9:50 a.m. Operator Training in the AP1000 [®] Nuclear Power Plant: Challenges and New Perspectives, Elisa Sajardo Jimenez,	Training for Next Generation Through International Internship: Review of KONICOF Global Internship Program, Mincheol Park, Youngjune Kim, Sejong Yoo (KONICOF)	
Alberto Fuentes Solana (Tecnatom)	10:10 a.m.	
10:10 a.m. New Vision Related to Conduct of Operator Simulator Evaluations and Critiques, Roger Jones (<i>Entergy Services</i>)	The European Programme—CINCH-II 'Cooperation in Education in Nuclear CHemistry', J. D. Holt, S. E. Taylor, N. D. M. Evans (Loughborough Univ)	
10:30 a.m.	10:30 a.m.	
Training Strategies for FLEX Guidelines, Robyn Brixey (Rob Brixey, Inc.)	Ten Years of the Asian Network for Education in Nuclear Technology (ANENT), Supitcha Chanyotha, Phongphaeth	
10:50 a.m.	Pengvanich (Chulalongkorn Univ), Hendriyanto Haditjahyono (Batan), Ryoko Kusumi (IAEA), Philip Beeley (Khalifa Univ)	
Byron Station FLEX Training Implementation, Stanley Kerr, Michael McCue, Bill Ward (Exelon Generation)	10:50 a.m.	
11:10 a.m.	Lessons to be Learned Regarding SAT from New Nuclear Power Programs, Thomas Mazour (Consultant), Brian Molloy	
Decision-Making Under Stress Training—Accelerated Learning for Emergency Responders, Sarah Glenn, Marios Kafantaris (INPO)	(IAEA)	

Technical Sessions: Monday, February 2

Conference Luncheon, 11:30 a.m 1 p.m. – Grand Ballroom 4	Personnel Training/Qualification/Education—I
Technical Sessions 1:00 - 2:45 p.m.	<i>Chair:</i> Michael Marler (Consultant)
Engineering Training and Education—I	Grand Ballroom 8
Chair: Jose Luis Delgado Criado (Tecnatom)	1:00 p.m.
Grand Ballroom 6	Achieving Portable Task Qualification in the Nuclear Power
1:00 p.m.	Industry, Patricia Wade <i>(EPRI)</i> , Don Cullers <i>(Polestar Technical Services)</i> , Burl McCosh <i>(INPO)</i>
A New Role for Universities in Training the Nuclear Workforce, Janet L. Littrell, Daniel G. Cole (Univ of Pittsburgh)	1:20 p.m.
1:20 p.m.	Standardized Task Evaluations (STE) Use in Accredited Training Program Standardization, James Caery (<i>Entergy Nuclear</i>)
Graduate Diploma Program in Nuclear Engineering Design, George Bereznai, John Froats, Glenn Harvel (Univ of Ontario Inst	1:40 p.m.
of Tech)	Supplemental Employee Qualification Determination and
1:40 p.m.	Tracking, James E. Surette (Kiewit Power Nuclear)
IAEA/Tecnatom Workshop on "Physics and Technology of	2:00 p.m.
WCRs Through the use of PC-Based Simulators", Javier Nieto Mora, Jose Galindo Rodriguez (<i>Tecnatom S.A.</i>)	Improving Operator Performance by Transitioning to Web- Based Technology, Heath Sanders, Kenneth Smith (ATS)
2:00 p.m.	2:20 p.m.
NEET: Nuclear Energy Education and Training at UMass Lowell, S. K. Aghara, J. R. White, G. Brown (Univ of Massachusetts	Simulation Training Post Fukushima, Scott Zepplin (GSE Systems, Inc.), Jeff Mercer, Dennis Spielman (Southern Nuclear)
Lowell), R. Kuhr (CB&I)	Refreshment Break, 2:45 - 3 p.m. Grand Ballroom Foyer
2:20 p.m.	Technical Sessions 3:00 - 4:45 p.m.
Application of Macro-Micro Simulator for High School	Leadership Development—I
Student Training, Minyong Park, Chidong Kong, Sooyoung Choi, Deokjung Lee (UNIST), Ho Cheol Shin (KHNP)	Chair: Shawn Howry (SNL)
	Grand Ballroom 6
	3:00 p.m.
Nuclear Uniform Curriculum Program Best Practices– Panel	The Role of Higher Education in Developing Nuclear Leaders, Michael Johnson (<i>Excelsior Coll</i>)
Chair: Elizabeth McAndrew-Benavides (NEI)	3:20 p.m.
Grand Ballroom 7	Knowledge Management Integration into Strategic Human
1:00 p.m.	Capital Management Systems, David Heler (Workforce Capital
Panelists will discuss best practices from both NUCP	Advisors), Tony Marco (Palo Verde Nuclear Generating Station)
partnerships and other, technology-based, two-year academic programs. Topics will include building inclusive industry	3:40 p.m.
partnerships, transitioning primary utility partners, aligning utility initial training to use the new ACAD standard and take	Safety Leadership and Followership Training Based on Safety Cultural Competency Modeling, Sa Kil Kim, Yeon Ju Oh, Tong Il Jang (<i>KAERI</i>)
credit for NUCP certificates, and recruiting and retaining women into these programs.	4:00 p.m.
Panelists:	A Case for Emotional Intelligence Assessment and Training
Tricia Joyner (Exelon)	for the Nuclear Industry, Kelly Robinson (Entergy)
• Stacey Presnell (Energy Northwest)	4:20 p.m.

• Bruce Peterson (St Cloud Technical and Community College)

• Chuck Sizemore (NextEra Energy)

Edison State Coll)

Corporate Succession Planning and Higher Education

Partnerships: A Winning Partnership, Thomas Devine (Thomas

Technical Sessions: Monday, February 2

Use of Technology in Training—I

Chair: Mike Desilets (Entergy)

Grand Ballroom 8

3:00 p.m.

Training Partnerships and Innovative Learning, Lorne Poindexter (Callaway Nuclear Plant)

3:20 p.m.

Development of the Thinking Engaged Behavior Improvement System (TEBIS) Training Simulator, David Molteni (Exelon Corp)

3:40 p.m.

Transforming Training Simulators into "Learning Simulators", Raymond Dimitri-Hakim (L-3 MAPPS)

4:00 p.m.

Unique Nuclear Uniform Curriculum Partnership Ensures Online Degree with Cutting-Edge Online Simulations, Steven Gackstetter (*Exelon Generation*), Kyren Miller, Gregory Lugar (*Bismarck State College*)

4:20 p.m.

Simulators and Specialized Equipment in Nuclear Technology Programs in Texas, Rudolph Henry, Bruce Kieler (*Wharton County Junior College*), Rebecca Shawver (*Brazosport College*)

Technical Sessions 3:00 - 8:00 p.m.

Professional Development for Nuclear Uniform Curriculum Program Members–Panel

Chair: Brian O'Donnell (INPO)

Grand Ballroom 7

3:00 p.m.

Regional Center for Nuclear Education and Training (RCNET) will Provide Professional Development ideas to attendees with emphasis on embedding unique systems into NUCP programs creating a Nuclear Culture and program expansion.

Panelists:

- James Capers (Regional Center for Nuclear Education and Training)
- Kevin Cooper (Regional Center for Nuclear Education and Training)

Cash Bar Reception in the Expo, 6 - 7:30 p.m. – Grand Ballroom Foyer



ANS Conference 2015 Annual Meeting



Nuclear Technology: An Essential Part of the Solution



Mark your calendar!

June 7-11, 2015 Grand Hyatt San Antonio San Antonio, TX

Technical Sessions: Tuesday, February 3

Conference Breakfast, 7 - 8 a.m. – Grand Ballroom Foyer Technical Sessions 8:00 - 9:45 a.m. Personnel Training/Qualification/Education—II <i>Chair:</i> Shawn Howry (SNL) Grand Ballroom 6 8:00 a.m. The Power of Positive Deviance, Cathy Brown (INPO) 8:20 a.m. Peach Bottom Extended Power Uprate (EPU) Training Approach and Results, Robert J. Reiner, Jr. (Exelon), Gregory A. Maisel (The Westwind Group) 8:40 a.m.	 Nuclear Security Training Chair: Jason Harris (Idaho State Univ) Grand Ballroom 8 8:00 a.m. Canadian Nuclear Security—Implementation of SAT for Training Excellence, Jeff Ross (OPG) 8:20 a.m. Security of Nuclear and Other Radioactive Materials during Transport, Y. Y. Liu, R. B. Pope (ANL), J. M. Shuler (DOE) 8:40 a.m. The WINS Academy Nuclear Security Certification Programme, Daniel Johnson, Roger Howsley (World Inst for
Lead Instructor Certification, Paul DiGiovanna (Dresden Nuclear Station) 9:00 a.m. Are Your Employees Playing Games?, Gill Grady (GSE Systems, Inc.)	Nuclear Security) 9:00 a.m. INSSL: Integrated Nuclear Security and Safeguards Laboratory, S. K. Aghara, M. Marzo (Univ of Massachusetts) 9:20 a.m.
Operator Licensing and Training–Panel <i>Chair:</i> Russell Coon <i>(Exelon)</i>	Perception of Students on Use of Problem Based Learning in Nuclear Security Education Course, Mostafa Kofi, Lamiaa Fiala <i>(Suez Canal Univ)</i> Refreshment Break, 9:45 - 10 a.m. – Grand Ballroom Foyer Technical Sessions 10:00 - 11:45 a.m.
 Grand Ballroom 7 8:00 a.m. The Operator Licensing and Training Panel for CONTE 2015 will include key members of the NRC, INPO and Industry who will participate in a discussion fueled by a question and answer format. Participants will have open-forum access to the panel to address issues, questions, concerns and challenges related to the topical area. <i>Panelists:</i> Gregg Ludlam (<i>Exelon</i>) Scott Sloan (<i>NRC</i>) Tim Kolb (<i>NRC</i>) Andy Barbee (<i>SCANNA</i>) Chuck Sizemore (<i>NextEra Energy</i>) 	 Leadership Development—II Chair: Alan Garner (Purdue Univ) Grand Ballroom 6 10:00 a.m. Leader vs Manager, Debbie Williams (INPO) 10:20 a.m. Influential Frontline Employees and Leadership Training, Brian S. Carpenter (APS) 10:40 a.m. Leadership Development—International Senior Nuclear Plant Manager Program, Victoria Wodzak (OPG) 11:00 a.m. Personality and Performance: Leadership Emergence Versus Leadership Effectiveness, Cynthia DeVita-Cochrane (The Westwind Group, Inc.)

Technical Sessions: Tuesday, February 3

Affective Domain–Panel

Chair: Richard Coe (TESC)

Grand Ballroom 7

10:00 a.m.

Panelists:

- Audrey Cleo Cate (INPO)
- Bryce L. Shriver (Three-Seven Research)
- Louise Hastie (OPG)

Use of Technology in Training—II

Chair: Gilbert Brown (Umass Lowell)

Grand Ballroom 8

10:00 a.m.

Performance Improvement and Training Benefits of High Fidelity Simulator Training, Tom Shortell (Xcel Energy)

10:20 a.m.

Integrated Analyzing and Training Simulator for Spent Nuclear Fuel Pool, CAREPOOL, Yongdeog Kim (KHNP CRI), Heeseok Choi (ENU-TECH), Hocheol Shin (KHNP-CRI)

10:40 a.m.

Full Control Room Glass Top Application to DCS Upgrade Project, Robert Felker (*WSC*)

11:00 a.m.

Core Simulator for Reactor Physics Test of PWRs, Ho Cheol Shin, Soon Gwan Hong, Yong Bae Kim (KHNP-CRI)

11:20 a.m.

VIZRADTM Evolving Simulation in Radiation Training, Michael Podobnik, Carlos Contreras (*Teletrix*), Jamie Camp (GSE Solutions)

Award Luncheon, 11:45 a.m. - 1 p.m. – Grand Ballroom 5 Robert L. Long Training Excellence Award Presented to Charlie Nesbitt

Technical Sessions 1:00 - 2:45 p.m.

INPO Accreditation Topics

Chair: Tammy Love (INPO)

Grand Ballroom 6

1:00 p.m. Accreditation: A Case for Change, Steve Johnson *(INPO)*

1:20 p.m.

Elevating Performance by Advancing Workforce Proficiency, Charles R. Brooks (INPO)

1:40 p.m.

NUCP Recruiting, Stabilization and Diversification, Charlie Nesbitt, Bob Collins (Augusta Technical College)

Cyber Nuclear Research Opportunities-Panel

Chair: Jane LeClair (Excelsior College)

Grand Ballroom 7

1:00 p.m.

This panel will look at top research ideas to identify where investment should be in relation to commercial nuclear power. Various aspects of cyber nuclear research such as risk management technology, digital systems and architecture more resilient to nuclear issues will be explored. A look at where the industry and government believe future research opportunities are located will be explored.

Panelists:

- Nathan Faith (Exelon)
- Mitch McCrory (SNL)
- Trevor Cook (DOE)
- Brad Yeates (Southern Company Nuclear)

Engineering Training and Education—II

Chair: Dave Helling (Westinghouse)

Grand Ballroom 8

1:00 p.m.

Nuclear Engineering Training at Ontario Power Generation, Mary Duarte (OPG)

1:20 p.m.

Proposal for a Nuclear Reactor Operations Course at Purdue University, Allen L. Garner, Robert S. Bean (*Purdue Univ*), George McCullough, Sr. (*GSE Systems*), Amanda M. Loveless (*Purdue Univ*)

1:40 p.m.

Practical Education Programs in Kyung Hee University for Globalized Nuclear Engineers, Myung Hyun Kim, Yoon-Suk Chang, Kwang Pyo Kim (*Kyung Hee Univ*)

www.ans.org

Refreshment Break, 2:45 - 3 p.m. – Grand Ballroom Foyer	Personnel Training/Qualification/Education—III
Technical Sessions 3:00 - 4:45 p.m.	Chair: Michael Johnson (Excelsior College)
IAEA/Developing Workforce/Newcomer Countries—II Chair: Philip Beeley (Khalifa Univ)	Grand Ballroom 8
Creard Pallacer 6	3:00 p.m.
Grand Ballroom 6 3:00 p.m. Capacity Building and Workforce Development for	Protecting the Critical Infrastructures—Preparing Cyber Warriors in Nuclear Industries, Lifang Shih, Jane LeClair (Excelsior Coll)
Newcomer Countries, Brian R. Molloy (IAEA)	3:20 p.m.
3:20 p.m. Education to Employment—Inspiring the Next Generation,	Does Safety Training Have an Impact on Safety Culture?, Sharon Bowden (Duke Energy)
Securing our Future, Lynne Matthews (EDF Energy)	3:40 p.m.
 3:40 p.m. Developing the Gulf Nuclear Energy Infrastructure Institute for Regional Expansion, Alexander Solodov, Philip A. Beeley (<i>KUSTAR</i>), Adam D. Williams, Amir H. Mohagheghi, Robert J. Finch (<i>SNL</i>), David R. Boyle (<i>Texas A&M Univ</i>) 4:00 p.m. Implementation of Training for Nuclear New Build in the UK, Simon Earp (<i>EDF Energy</i>) 	 Personnel Training for Nuclear Facilities: Challenges in Developing and Implementing an Overarching Regulatory Document, Thomas Manning, Martin Vesely, Lucie Désaulniers (<i>Canadian Nuclear Safety Commission</i>) 4:00 p.m. "This is Nuclear": Gamification of the Learning Experience, E. Corniani, M. Barboni, U. von Estorff (<i>EC JRC</i>) 4:20 p.m.
	Prior Learning Assessment—Getting College Credit for Learning Outside the Traditional Academic Environment, Richard P. Coe (Thomas Edison State Coll)
Academic Diversity Enrollments–Panel	
Chair: Elizabeth McAndrew-Benavides (NEI)	
Grand Ballroom 7	Cash Bar Reception in the Expo, 6 - 7:30 p.m. – Grand Ballroom Foyer
3:00 p.m.	Grand Daniooni Toyer
This panel brings together practitioners from community colleges, universities, non-profits and the government to discuss how industry-government-academic partnerships can increase enrollment and retention of minorities and women in nuclear academic programs. <i>Panelists</i>	

- Karen Greig (Exelon)
- Lisa Marshall (Univ of North Carolina)
- Kevin Edwards (Bechtel)
- Donna Milgram (National Institute for Women in Trades, Technology & Science)

Technical Sessions: Wednesday, February 4

Conference Breakfast, 7 - 8 a.m. – Grand Ballroom Foyer Technical Sessions 8:00 - 9:45 a.m. Operator Training—II	8:20 a.m. A Problem Solving Workshop For Nuclear Professionals, Frederik D. Lake (WD Assoc), Lynn E. Walter (Light Water Solutions LLC)
Chair: Michael Marler (Consultant)	
Grand Ballroom 6 8:00 a.m.	8:40 a.m. WWER Multimedia Tool for On-line Training and the CORONA Example, E. Corniani, M. Barboni, U. von Estorff <i>(EC JRC)</i> , T. Karseka <i>(IAEA)</i>
Industry Simulator Instructor Certification Course (SICP), Gregg W. Ludlam (Exelon)	9:00 a.m.
8:20 a.m. ILT Certification and NRC Examination Development, Bill Ward (<i>Exelon</i>)	Using a Generic PWR Simulator in a NET Degree Program, John R. Smith (Western Services Corp), James Sherrard (Three Rivers Com College)
8:40 a.m. Entergy Crew Performance Evaluations, Roger Jones (Entergy Services Inc.)	9:20 a.m. Involvement Approach Through Education, Outreach Methods, and Public Perception, Fareed Yasin, Joseph Stainback IV, Howard Hall (<i>Univ of Tennessee</i>)
9:00 a.m. Blended Learning in Senior Reactor Operator Certification Program, Nathan Hall, David Helling (<i>Westinghouse</i>)	
9:20 a.m. How to Dramatically Improve Operator Training Throughput Utilizing Screening and Selection, Jim Eberle <i>(GSE Systems Inc.)</i>	Refreshment Break, 9:45 - 10 a.m. – Grand Ballroom Foyer
	Technical Sessions 10:00 - 11:45 a.m.
Who Really Owns Training?–Panel <i>Chair:</i> Jill Hegland (TVA)	Systematic Approach to Training Chair: Tammy Love (INPO)
Grand Ballroom 7	Grand Ballroom 6
8:00 a.m. <i>Panelists:</i> • Michael Balduzzi (TVA)	10:00 a.m. The Systematic Approach to Training—A Graded Perspective, Stacey Hatch, Mike Hogben <i>(EDF Energy)</i>
 Marios Kafantaris (PSEG Nuclear) Coleen Ware (TVA) Patrick Berry (Entergy) 	10:20 a.m. Diagnostic SAT Survey Tool Used to Improve Knowledge in Training and Line Personnel, Jennifer Lawless <i>(Exelon Corp.)</i>
	10:40 a.m.
Personnel Training/Qualification/Education—IV Chair: Michael Johnson (Excelsior College)	A System Development of Individual Characteristic for Training Need Analysis, Yeon-ju Oh, Sa-kil Kim, Tong-il Jang (KAERI)
Grand Ballroom 8	
8:00 a.m. Cybersecurity Concentration in Nuclear Technology Degrees, Jane LeClair, Michael Johnson <i>(Excelsior Coll)</i>	

Technical Sessions: Wednesday, February 4

Gulf Nuclear Energy Infrastructure Institute–Panel

Chair: Sukesh Aghara (UMass Lowell)

Grand Ballroom 7

10:00 a.m.

Panelists:

- Philip Beeley (Khalifa Univ)
- David Boyle (Texas A&M Univ)
- Adam Williams (SNL)

Use of Technology in Training—III

Chair: Mike Desilets (Entergy)

Grand Ballroom 8

10:00 a.m.

Innovative Use of iPads in Training, Bonny J. Carrier, Robert Avelis (*TVA*)

10:20 a.m.

3D Virtual Education Laboratories with Interactive Instructions and Instruments, Yoshinori Satoh (Univ of Illinois/ Toshiba), Nabeel Y. Rizwan, Rizwan Uddin (Univ of Illinois)

10:40 a.m.

Introduction to Power Plant Operation 3D Computer-Based Training, Jeffrey M. Stevens (*Exelon Generation*)

11:00 a.m.

An Innovative Approach to Distance Learning in Nuclear Training, David A. Pearson (Dominion)

11:20 a.m.

Major Nuclear Power Accidents Multi Media Tool for Nuclear Knowledge Preservation, E. Corniani, U. von Estorff (*EC JRC*), T. Karseka (*IAEA*), Y. Yanev (*Nuclear Knowledge Management Inst*)

Closing Luncheon, 11:45 a.m. - 1 p.m. - Grand Ballroom 5



ANS Conference 2015 Winter Meeting



Mark your calendar!

November 8-12, 2015 Marriott Wardman Park Washington, DC



CONTE 2015 Exhibitor Technology Expo



Grand Ballroom Foyer Hyatt Regency-Riverfront Jacksonville, FL



Hours: Sunday, Feb. 1, 6:30 - 9:00 p.m. Monday, Feb. 2, 7:00 a.m. - 7:00 p.m. Tuesday, Feb. 3, 7:00 a.m. - 7:00 p.m. Wednesday, Feb. 4, 7:00 a.m. - 1:30 p.m.

Applied Technical Systems, Inc.

Silverdale, WA

(Booth 23)

Applied Technical Systems (ATS) designs and develops custom software solutions that help organizations integrate, analyze and visualize the data they need to power optimal performance, operational readiness and intelligent decisions. Crew Atlas is ATS's fully functional electronic crew notebook that helps plants monitor, measure, manage, and improve crew performance.

Bismarck State College

Bismarck, ND

(Booth 35)

Bismarck State College is proud to include the fully-accredited Nuclear Power Technology program along with other oncampus and online course offerings. BSC has been teaching customized programs for the energy industry for over 40 years and was selected by EPCE to custom develop the Nuclear Power Technology program for the nuclear industry.

Corys Thunder Inc.

Jacksonville, FL

(Booths 1 & 2)

CORYS Thunder 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.

Excelsior College

Albany, N	JY
-----------	----

(Booth 19)

Excelsior's ABET accredited online BS in Nuclear Engineering Technology degree allows up to 52 credits transfer from industry training programs, and will soon open two new 15 credit concentrations: Nuclear Leadership and Nuclear Cybersecurity. Accredited by the Middle Association of Colleges and Schools, Excelsior is host to the first virtual student chapter of the American Nuclear Society.

Florida Power & Light Company/ Regional Center for Nuclear Education and Training

Juno Beach, FL

(Booth 38)

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), Nulcear Regulatory Commision (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.

Focus Learning Corporation

San Luis Obispo, CA

(Booth 25)

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, Inc.

Sykesville, MD

(Booth 28)

GSE Systems, Inc. along with newly acquired Hyperspring LLC and the formation of IntelliQlik LLC, provides performance improvement solutions to the energy industry. We improve human performance though turnkey training, unique visualization and simulation applications, and our staff of instructors, as well as plant improvement through our engineering expertise and use of technology to improve plant design, commissioning and operations.

Hyperspring, LLC

Huntsville, AL

(Booth 27)

The acquisition of Hyperspring by GSE Systems, Inc. has allowed GSE to significantly increase our services to clients. GSE now provides qualified industry professionals for staff augmentation, material development, exam support and accreditation assistance.

GSE offers full service training courses that have a proven record of success, Senior Reactor Operation (SRO) Certification, Generic Fundamentals (GFES) and other specifically designed courses for both BWR & PWR Units.

Technology Exhibits

Intelliqlik

Sykesville,	MD
-------------	----

(Booth	36)
(Doom	50)

IntelliQlik (IQ) provides training products, services, and software to the utility industry. Our innovation studio (IQ Labs) has created an advanced talent acquisition model to streamline the hiring process while reducing recruiting costs. In addition, our online GFES training system (www. nuclearuniversity.com) is quickly becoming the industry standard for blended learning.

Kiewit Power Nuclear Co.

Lenexa,	KS

(Booth 37)

Kiewit is one of the Top 3 Contractors in North America and recognized as one of the "Top 100 Companies to Work For." Kiewit Power Nuclear (KPN) is defined by that spirit of excellence and positioned as a premier provider of nuclear services – including full EPC services, maintenance/ modifications and decommissioning.

L-3 MAPPS

Quebec, Canada

(Booths 33 & 34)

Whether nuclear, fossil or natural gas fired, count on L-3 MAPPS to effectively deliver a simulator solution that best suits your training or engineering needs. We offer simulators ranging from classroom trainers and system trainers to full scale simulators – all designed and aimed at unlocking value for your organization.

National Cybersecurity Institute at Excelsior College Washington, DC (Booth 30)

National Cybersecurity Institute at Excelsior College is an academic and research center dedicated to assisting government, industry, military and academic sectors to meet our cyber security challenges.

NCI operates at the intersection of theory and practices, targeting the development of effective cyber security practices and increasing knowledge of cyber security to help meet workforce demands.

Nuclear Training Institute

Norcross, (GA
-------------	----

(Booth 43)

Our strategy is simple – to provide relevant courses for development of nuclear industry professionals. Primarily, we focus on working with auditors, engineers, project managers and other key staffing positions to ensure they have the tools necessary for driving compliance and organizational success.

Ontario Power Generation

Ontario Canada

(Booth 26)

Ontario Power Generation has a strong reputation in the international nuclear community as a champion in leadership development. Since 1996 OPG has been delivering the International Senior Nuclear Plant Manager program for the world-wide nuclear community. This intensive five-week program further prepares high potential managers in nuclear organizations to effectively perform in senior plant leadership positions. This program and other OPG leadership programs are featured at the Vendor Expo.

TECNATOM

Madrid, Spain

(Booth 31)

Tecnatom is an engineering company providing comprehensive training services for the global nuclear industry, with more than 35 years of experience of applying the most advanced training methodologies. Through in-house technological development, we provide to clients the best resources, ensuring improvements in safety, availability and efficiency of their facilities.

TELETRIX

Pittsburgh, PA

(Booth 29)

Teletrix is the leading maker of RADIATION TRAINING SIMULATORS in the USA. Teletrix simulators extend the practical, hands-on learning activities of radiation safety training programs allowing those that are challenged with adding realism to do so without adding exposure.

Safe, Practical, Realistic, Impactful...Exactly what training requires for heightened performance of its workforce.

The Westwind Group, Inc.

Wilmington, NC

(Booth 8 & 9)

Delivering excellence to exceed client expectations has been Westwind Group's Hallmark for over 20 years. As the premier full-service provider in Training and related services, we assist clients in:

- Accreditation Support.
- Training & Procedure Development supporting Power Uprates & other Projects.
- SAT Reconstruction, License, Supervisory, & Management Candidate Selection.
- Specialty Operations & Technical Training Development & Delivery.
- Customized Program Development using VISION®.
- Staff Augmentation.
- We Live Training for Performance Improvement.

Technology Exhibits

Thomas Edison State College

Trenton, NJ

(Booth 32)

Thomas Edison State College provides flexible, high-quality, collegiate learning opportunities for self-directed adults. Its programs meet the needs of nuclear professionals and include BSAST degrees in Nuclear Energy Engineering Technology (ABET accredited), Nuclear Engineering Technology, Electronics Systems Engineering Technology and Radiation Protection, and a MSAST degree in Nuclear Energy Technology Management.

Western Services Corporation

Frederick, MD

(Booth 42)

WSC is a global simulation technology company that deploys its proprietary 3KEYSOFTWARE® Simulation Technology for nuclear training simulators and to support engineering design and commissioning of new plants in the US, Korea, China and the UAE. WSC has a vigorous market-focused R&D program and a strong commitment to customer service.

Westinghouse Electric Company

Madison, PA

(Booth11)

Westinghouse Electric Company, a group company of Toshiba Corporation, provides the technology that is the basis for more than 40 percent of the world's operating nuclear plants, including 60 percent of those in the United States. Westinghouse adult educational specialists and subject matter experts provide training in fuel, services, engineering, plant design, equipment, and operation to utility and industrial customers in the worldwide commercial nuclear electric power industry.

Special Recognition and Thanks to Our Colleagues at the European Nuclear Society





	A CAN ACCANA	ANS 2015 Conferences
February		
Sunday 22 Feb	When: Where:	NPIC & HMIT 2015, 9th International Topical Meeting on Nuclear Plant Instrumentation, Control, and Human Machine Interface Technologies February 22-26, 2015 The Westin Charlotte, Charlotte, NC
April		
Thursday 9 Apr	When: Where:	ANS Student Conference April 9-11, 2015 Texas A&M University, College Station, TX
Sunday 12 Apr	When: Where:	IHLRWM 2015, International High-Level Radioactive Waste Management April 12-16, 2015 Charleston Marriott, Charleston, SC
		June
Sunday 7 June	When: Where:	2015 ANS Annual Meeting June 7-11, 2015 Grand Hyatt San Antonio, San Antonio, TX
		August
Sunday 9 Aug	When: Where:	UWC 2015, Utility Working Conference and Vendor Technology Expo August 9-12, 2015 Omni Amelia Island Plantation, Amelia Island, FL
		September
Sunday 13 Sept	When: Where:	ICNC 2015, International Conference on Nuclear Criticality Safety September 13-17, 2015 Omni Charlotte Hotel, Charlotte, NC
November		
Sunday 8 Nov	When: Where:	2015 ANS Winter Meeting and Nuclear Technology Expo November 8-12, 2015 Marriott Wardman Park, Washington, DC



Hyatt Regency Jacksonville Riverfront 225 Coastline Drive East

Jacksonville, Florida 32202 Phone: 904-588-1234

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.

2ND FLOOR



3RD FLOOR



