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International Youth Nuclear Congress
Charlotte, N.C.
August 5-11, 2012
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Welcome to IYNC2012 and Charlotte

Dear IYNC2012 Participant,

The young generation is the future of the nuclear industry and research and development, driving companies to continuously improve and develop new techniques, projects, communications and approaches.

On behalf of the volunteers of the different organizing committees, it is our pleasure and a privilege to welcome you to the International Youth Nuclear Congress 2012 (IYNC2012) that takes place in Charlotte, N.C. from 5 to 11 August 2012.

This conference gathers young nuclear science and technology specialists from all over the world and aims to:

• train and encourage new and future leaders
• create a platform for career development and networking among young people
• promote knowledge exchange between the older and younger generations
• promote science, engineering and communication in the field of the peaceful uses of nuclear technology.

With these aims, the IYNC2012 gathers for you high-level industry representatives, regulators, researchers, technicians, nuclear project managers and government policymakers, who will present and discuss on the most relevant aspects of nuclear energy and its technology deployment. Our technical program will consist of technical, high-level and keynote presentations, interactive workshops, and professional development sessions.

Additionally, IYNC, NAYGN and particularly IYNC2012 will seek to expand and strengthen the young generation’s networking with other professionals. It will provide opportunities for young people to exchange ideas on technology trends, new developments, best practices, and the social and political aspects of nuclear energy around the world. This conference is an extraordinary opportunity for you to meet with young professionals from different cultures, share views of the challenging aspects of the deployment of the nuclear energy in every continent, and create an opportunity for networking, collaboration, sharing of technical information and the building of trust relationships internationally.

Please enjoy your stay in Charlotte and profit from all the connections you will make in the next few days.

IYNC2012 Executive Committee
Welcome to IYNC2012 and Charlotte

Introduction to IYNC and NAYGN

Program Overview

Plenary Sessions Descriptions

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Charlotte’s Got A Lot!

Technical Track Oral Presentations

IYNC2012 Congress Organizing Committee

Conference Floor Plans

NAYGN and IYNC

North American Young Generation in Nuclear (NAYGN)

North American Young Generation in Nuclear (NAYGN) is honored to serve as the host of the 7th International Youth Nuclear Congress. Charlotte is an exciting center for nuclear science and technology, and our NAYGN members here in North Carolina are eager to introduce you to their innovative thoughts and ideas as well as the welcoming culture of the American South.

NAYGN is proud to represent more than 9,000 members and 101 local chapters across Canada, Mexico and the United States.

Our mission is to provide opportunities for a young generation of nuclear enthusiasts to develop leadership and professional skills, create life-long connections, engage and inform the public, and inspire today’s nuclear technology professionals to meet the challenges of the 21st century.

To accomplish this, we:

• provide a forum for the professional development of our members
• actively participate in public information by informing and educating the general population about nuclear science and technology
• actively participate in recruitment and retention for NAYGN and the nuclear industry
• contribute to the knowledge transfer among generations of nuclear professionals
• provide opportunities for members to network.

I hope you will all enjoy the sharing of knowledge and spirit of camaraderie that inhabits this very special event.

Thank you for joining us!

Duncan Robinson
NAYGN President

International Youth Nuclear Congress (IYNC)

First I want to thank the Executive Committee and all everyone associated with organizing IYNC2012 for the first time in the United States. I am excited to be here and cannot wait to learn from my colleagues, sample the local cuisine and make new friends. For those of you unfamiliar with the International Youth Nuclear Congress (IYNC), we are a global network of a new generation of nuclear students, scholars and professionals that work to:

• Develop new approaches to communicate benefits of nuclear power, as part of a balanced energy mix.
• Promote further peaceful use of nuclear science and technology for the welfare of mankind.
• Facilitate transfer of knowledge from the current generation of leading scientists and other experts to the next generation.
• Provide a platform and create an enabling environment to facilitate the building of professional networks that will open up future opportunities.

We comprise 42 national delegates, 20 members-at-large, 6 continental liaisons, and 6 officers all serving two year terms to help bring our mission statement alive. We run a successful grant program that helps new countries develop young generation networks. We also provide grants to established organizations that need a little financial help to promote nuclear in accordance with our mission. Lastly, we have provided $10,000 travel grants to individuals to be here in Charlotte this week. This is our seventh IYNC meeting and I am excited that it will be the best yet!

On behalf of IYNC, Welcome to Charlotte!

Miguel Millán
IYNC President
Program Overview

The program of the IYNC comprises a variety of plenary sessions, workshops and technical tracks made by and for students and young professionals from all sectors of the international scene of nuclear science and technology. Last but not least, IYNC has the tradition to offer a set of unique technical tours to its participants.

Thanks to the joint organization with the NWGN, we can offer you for this IYNC edition a unique set of professional development workshops and a public information special event. Moreover IYNC is proud to offer you 18 small interactive workshops in different domains. Participants that sent in a summary for one of our 11 technical tracks can be selected to present their full paper in the special edition of our conference Journal of Energy Conversion and Management.

Technical Tracks

Eleven tracks will allow each young professional to present a paper in his or her technical or non-technical domain of expertise. Oral presentations and a poster session are organized.

Track 1: Strategic Planning & Professional Development
Track Chair: Charles T. Spanding, Sargent & Lundy, USA
Submissions to this track may include, but are not limited to:
- strategic planning
- business development
- professional development
- project management.

Track 2: Plant Design, Construction, Operation, Maintenance & Decommissioning
Track Chair: Daniel Gregory, HSE Office of Nuclear Regulation, UK
Submissions to this track may include, but are not limited to:
- plant construction
- plant safety assessment and human factors
- codes, standards, licensing and regulatory issues
- reliability and performance
- maintenance programs and aging
- control and human machine interface technologies
- experiences and techniques in decommissioning
- environmental restoration.

Track 3: Nuclear Fuel Cycle & Waste Management
Track Chair: M. Alex Brown, Oregon State University, USA
Submissions to this track may include, but are not limited to:
- mining and milling
- conversion
- enrichment
- fuel fabrication
- burn-up optimization
- reprocessing
- low-level waste treatment
- waste disposal/storage facilities
- safety, hazard and risk evaluation.

Track 4: Nuclear Politics, Economics & Human Resources
Track Chair: Jonathan Scott, Atkins, UK
Submissions to this track may include, but are not limited to:
- energy policy
- energy demand
- economics
- societal issues
- education and training
- workforce development.

Track 5: Nuclear Safety, Radiation Protection and Shielding
Track Chair: Jan Tiao, Bruce Power, Canada
Submissions to this track may include, but are not limited to:
- severe accident analysis
- criticality safety
- risk assessment
- radiation protection
- radiation monitoring and detection
- public health and environmental effects
- nonproliferation
- global threat reduction.

Track 6: Advanced Nuclear Systems
Track Chair: Takanori Sugawara, JAERI, Japan
Submissions to this track may include, but are not limited to:
- advanced fission systems
- inertial and magnetic fusion energy systems
- hybrid reactors
- experimental campaigns in support of advanced systems
- fusion science and technology.

Track 7: Radiation Science, Medical Applications & Non-Baseload Nuclear Applications
Track Chair: Pedro Teles, ITN, Portugal
Submissions to this track may include, but are not limited to:
- radiation therapy
- nuclear medicine technology
- co-generation and non-baseload applications
- nuclear hydrogen
- space power and propulsion
- accelerators applications
- biology and medicine.

Track 8: Reactor Physics
Track Chair: TBC
Submissions to this track may include, but are not limited to:
- analysis methods and codes
- transport & Monte Carlo methods
- nuclear data
- benchmark exercises
- mathematics and computation.

Track 9: Thermal Hydraulics & Fluids
Track Chair: Elia Merzari, Argonne National Laboratory, USA
Submissions to this track may include, but are not limited to:
- heat transfer
- hydraulics
- computational fluid dynamics
- coolants
- aerosol transport.

Track 10: Materials Science & Technology
Track Chair: Tuan L. Hoang, University of California–Berkeley, USA
Submissions to this track may include, but are not limited to:
- materials science
- nuclear fuels and materials
- modeling and simulation of nuclear fuels and materials
- chemistry
- irradiation damage.

Track 11: Young Generation Unique Best Practices
Track Chair: Michael J. Hope, Nuclear Fuel Service, USA
Submissions to this track may include, but are not limited to:
- National Young Generation Projects
- Regional Young Generation Projects.
Three plenary sessions are set up within the theme of IYNC2012: Strategic Planning. An international set of high-level speakers from industry, research, academia and nongovernmental organizations will present to the audience their vision on different issues related to strategic planning. These three domains are identified. At the beginning of the conference, an international authority will provide his or her vision on the different aspects of the conference theme in the keynote session.

**Opening Plenary: Welcome to Charlotte & Parade of Flags**
Monday, 8-9:20 a.m., Providence Ballroom

**Welcome Speakers**
The Honorable Richard Burr, U.S. Senate, USA
Miguel Millán, IYNC President, Spain
Duncan Robinson, NAYGN President, USA

**Keynote Session: Strategic Planning**
Monday, 9:20-10:05 a.m., Providence Ballroom

**Keynote Chair:** Craig Albert, Fluor Corporation, USA

**Welcome Speakers**
The Honorable Richard Burr, U.S. Senate, USA
Miguel Millán, IYNC President, Spain
Duncan Robinson, NAYGN President, USA

**Keynote Session: Strategic Planning & Growth**
Monday, 10:35 a.m.-12:05 p.m., Providence Ballroom

**Panel:**
Dhiaa Jamil, Duke Energy Corporation, USA
Ricardo Perez, Westinghouse Electric Company, USA
Jean-Pol Poncelet, FORATOM, Belgium

**Plenary Session 2: Strategic Planning & Innovation**
Wednesday, 10-11:30 a.m., Providence Ballroom

**Facilitator:** Ekaterina Paramonova, Massachusetts Institute of Technology, Russia

**Panel:**
Alexander Fertman, Nuclear Cluster SkTech/Skolkovo, Russia
Eric van Walle, SCK-CEN, Belgium
Susan Landahl, Exelon Nuclear, USA

**Plenary Session 3: Strategic Planning & Opportunities**
Thursday, 10 a.m.-11:30 a.m., Providence Ballroom

**Panel:**
Milo Alanu, Westinghouse Electric Company, Sweden
Marvin Fertel, Nuclear Energy Institute, USA
Atsuyuki Suzuki, Japan Atomic Energy Agency, Japan
Anders Jackson, Studsvik, Sweden

Eleven professional development sessions have been organized by NAYGN to provide all attendees an opportunity to expand their understanding of the IYNC2012 conference theme: Strategic Planning. These sessions will all take place in the main ballroom and will feature experts and executives discussing how strategic planning is utilized in all of the different sectors of nuclear science and technology.

**PD Session 1: Strategic Planning & Growth**
Monday, 8 a.m., Providence Ballroom

**Facilitator:** Tommy Bowman, Westinghouse Electric Company, USA

**Speakers:**
Scott Carberg, Talking Points LLC, USA
Jo Anne Robinson, Augusta Technical College, USA
Clarence Fenner, STP Nuclear Operating Company, USA

**PD Session 2: Nuclear Energy – A Financial Discussion**
Monday, 3:30 p.m., Providence Ballroom

**Facilitator:**
Tom Calo, PSEG Nuclear, USA

**Speakers:**
Robert Drennan, Progress Energy, USA
Jack Spencer, The Heritage Foundation, USA
Cheryl Brakefield, Southern Company, USA
Julien Dumoulin-Smith, UBS Investment Research, USA

**PD Session 3: Nuclear Energy – International Successes and Failures**
Tuesday, 10 a.m., Providence Ballroom

**Facilitator:**
Adam Nygaard, Duke Energy Corporation, USA

**Speakers:**
Paul Murray, AREVA Inc., USA
Andrew Sowder, Electric Power Research Institute, USA
Everett Redmond, Nuclear Energy Institute, USA

**PD Session 4: Strategic Alliances: Key Benefits, Challenges and Considerations**
Tuesday, 1 p.m., Providence Ballroom

**Facilitator:** Brian Gemon, Nuclear Energy Institute, USA

**Speakers:**
Darrell Fisher, Pacific Northwest National Laboratory, USA
Jack Heyer, International Brotherhood of Electrical Workers, USA

**PD Session 5: Strategic Alliances: Key Benefits, Challenges and Considerations**
Tuesday, 8 a.m., Providence Ballroom

**Facilitator:**
Tommy Bowman, Westinghouse Electric Company, USA

**Speakers:**
Scott Carberg, Talking Points LLC, USA
Jo Anne Robinson, Augusta Technical College, USA
Clarence Fenner, STP Nuclear Operating Company, USA

**PD Session 6: Used Nuclear Fuel Management – International Successes and Failures**
Tuesday, 10 a.m., Providence Ballroom

**Facilitator:**
Adam Nygaard, Duke Energy Corporation, USA

**Speakers:**
Paul Murray, AREVA Inc., USA
Andrew Sowder, Electric Power Research Institute, USA
Everett Redmond, Nuclear Energy Institute, USA
**PD Session 6: Managing Competing Resource Requirements for a Successful Outage**

**Tuesday, 3 p.m., Providence Ballroom**

The discussion is on how utilities and vendors across the world cope with competing resource requirements. This session will address such questions as how utilities plan for simultaneous outages at various sites and how vendors plan for increased resource requirements to support multiple outages.

**Facilitator:**
José Vives, NexTera Energy, USA

**Speakers:**
Ashok Bhatnagar, NexTera Energy, USA
Kevin Walsh, GE Hitachi Nuclear Energy, USA
Brian Reilly, Bechtel Power Corporation, USA

**PD Session 7: Challenges to the Nuclear Supply Chain**

**Wednesday, 10 a.m., Providence Ballroom**

The nuclear supply chain relies on a multitude of players and vendors with specific standards designed to meet safety and reliability requirements. This session will explore the challenges associated with the supply chain and highlight potential solutions and thought processes derived by industry experts.

**Facilitator:**
Ryan McAward, The Shaw Group, USA

**Speakers:**
Edwin Terres, Shaw Power Group, USA
Glenda Thomas, Southern Nuclear Operating Company, USA
Josh Bartlett, Curtiss-Wright Flow Control, USA

**PD Session 8: Long-Term Planning for Nuclear New Builds**

**Wednesday, 1 p.m., Providence Ballroom**

We will discuss the strategic plans of utilities, vendors and countries as they relate to the challenges of nuclear new builds.

**Facilitator:**
Zack Patterson, Tennessee Valley Authority, USA

**Speakers:**
Norman Sawyer, Bruce Power, Canada
William Fox, Shaw Power Group, USA
TBD

**PD Session 9: Personal Development Toolbox**

**Wednesday, 1 p.m., Grand Ballroom (Additional Charge: $24)**

This session will provide tools for participants to develop themselves. These tools can be used to help identify their career paths and determine what steps they need to take to reach their career goal. An extra fee will be assessed for anyone registering for this session to pay for materials. Participants will be assigned an assessment they need to complete before the session and given a book at the conference.

**Facilitator:**
Natalie Wood, Entergy Operations Inc., USA

**Speakers:**
John McElhain, Entergy Operations Inc., USA
Charles Sarchione, Entergy Services Inc., USA

**Workshops**

Eighteen interactive workshops in different technical and nontechnical disciplines are organized for NYNC2012. Pre-registration is required for the workshops, based on a first-come, first-served rule.

**Workshop 1: BRICS Nuclear Energy Industry**

**Tuesday, 1 p.m., Sharon**

The purpose of this workshop is to provide an insight into the current status and the scope for expansion of the nuclear industry in the BRICS countries (Brazil, Russia, India, China and South Africa). Participants will work in groups to prepare a short write-up documenting the measures that need to be taken to overcome the barriers to growth in one of the five BRICS countries.

**Workshop Manager:**
Rahul Srinivasan, MPR Associates Inc., USA

**Speakers:**
Willem Kriel, MPR, South Africa
Jun Ding, TerraPower, China
Irina Lakovieva, JSC SPBAEP, Russia

**Workshop 2: Benchmarks: Evaluating Our Nuclear Heritage to Validate Our Nuclear Future**

**Tuesday, 1 p.m., Providence Ballroom**

This workshop will help young professionals understand how to become engaged in benchmark experiments by discussing activities of the International Criticality Safety Benchmark Evaluation Project and International Reactor Physics Experiment Evaluation Project.

**Workshop Manager:**
Michael J. Hope, Nuclear Fuel Services, USA

**Workshop 3: The Trouble With Justification**

**Tuesday, 1 p.m., Trade**

Science informs us of the technological advantages of nuclear energy technologies; however, societal opinions differ wildly on its acceptability. Given this moral pluralism, how does one justify the choices we make? What does this imply for the mandate of the nuclear scientist, engineer or manager?

**Workshop Manager:**
Gaston Meskens, SCK-CEN, Belgium

**Workshop 4: Media Training**

**Tuesday, 1 p.m., Independence**

Participants will learn what, why and how human beings perceive risks and what role the participant can play in managing these perceptions. Participants will then have the opportunity to role-play public debate stakeholders such as members of the public, regulators, investors, technical experts and the media.

**Workshop Manager:**
Abdul K. Barrie, Entergy Operations Inc., USA

**Speaker:**
Steve Kerekes, Nuclear Energy Institute, USA

**Workshop 5: Knowledge Transfer: The Power of Storytelling**

**Tuesday, 1 p.m., Harris**

Young professionals will learn how to solicit information from more experienced professionals in a manner that is non-confrontational. Participants will participate in a game that reinforces effective question-asking skills while attempting to construct a house made from Lego.

**Workshop Manager:**
Michael J. Hope, Nuclear Fuel Services, USA
Workshop 6: Small Nuclear Power Reactors

Tuesday, 1 p.m., Tryon
Participants will gain a general knowledge on small modular reactors, including existing barriers to their competitiveness, applications and licensing. Participants will work in groups to identify solutions to remove these barriers.

Workshop Manager: Denis Janin, E.ON, Germany
Speakers: Matthew Czatz, U.S. Department of Energy, USA Layla Sandell, Westinghouse Electric Company, USA Ignacio de Areniza, Comision Nacional de Energia Atomic, Argentina

Workshop 7: Working With Radiological Samples

Wednesday, 3 p.m., Morehead
Panelists will provide an overview of the challenges involved in preparing, handling and analyzing radiological samples. Best practices and techniques for working with radiological samples in a laboratory and hot cell settings will be discussed. Interaction from workshop participants is encouraged, and a summary document capturing best practices and experiences working with radiological samples will be prepared.

Workshop Manager: Melissa Teague, Idaho National Laboratory, USA
Speaker: Brian Burgo, Westinghouse Electric Company, USA
Bernadette Hammer, Paul Scherrer Institute, Switzerland

Workshop 8: Is Nuclear Energy Sustainable?

Wednesday, 3 p.m., Sharon
The future development and sustainability of nuclear energy will depend very much on the acceptance and proper use by future generations. The participants will then learn all of the different ways to generate and efficiently use nuclear and non-nuclear energy from the viewpoint of environmental conservation.

Workshop Manager: Vincent Ducros, AREVA, France
Franc Mariano Vela Mora, Instituto Peruano de Energia Nuclear, Peru
Speaker: Laura Clise, AREVA, USA

Workshop 9: Nuclear Power in a Diversified Energy Portfolio

Wednesday, 3 p.m., Independence
The place of nuclear in the global energy portfolio (wind, solar, coal, hydro) will be discussed. The participants will play a team game with fixed resources assigned to each country considering factors such as carbon, funding, demographics, politics, cultural and societal factors.

Workshop Manager: Shaun Saldana, AMEC NSS, Canada
Speakers: Robert McCurry, Duke Energy Corporation, USA Ken Langdon, Constellation Energy Nuclear Group, USA

Workshop 10: How to Finance a New Project?

Wednesday, 3 p.m., Harris
Participants will be introduced to the details of project finance and cash flows including how to analyze the specific financial considerations for the nuclear industry.

Workshop Manager: Joanna Wang, Ernst & Young, Canada
Speaker: Michael Samis, Ernst & Young, Canada

Workshop 11: Fuel-Cycle Strategy

Wednesday, 3 p.m., Tryon
A role-playing game will allow participants to learn about fuel cycle concepts and the key parameters that define the global nuclear energy industry. Each team will represent a country and engage in open dialogue with other countries to support its nuclear energy goals.

Workshop Managers: Samuel Britton, Massachusetts Institute of Technology, USA Raquel Ochoa, Universidad Politecnica de Madrid, Spain

Workshop 12: A Systems Engineering Approach to Conceptual Design

Wednesday, 3 p.m., Trade
Speakers will present how they take an idea through the design process. Each group will present its approach for taking the idea through design. Group interaction will enhance understanding of effective approach to conceptual design.

Workshop Manager: Mayank Sood, AMEC NSS, Canada
Speaker: Victor Kreft, AMEC NSS, Canada

Workshop 13: Takeaways From Fukushima

Thursday, 8 a.m., Tryon
Experts will deliver presentations about the impacts of Fukushima on their respective segment of the nuclear industry. Participants will then discuss lessons learned and present ideas for positive change in the speaker’s area of the industry.

Workshop Manager: Victor Kreft, AMEC NSS, Canada
Speakers: Kenji Tateisi, TEPCO, Japan Lauren Tosatto, Westinghouse Electric Company, USA

Workshop 14: Advanced Reactor Concepts: Highlights and Challenges

Thursday, 8 a.m., Harris
This workshop will be separated into three main sections: high-temperature reactors (HTR and ATR) with process heat applications, and current progress; fast reactor and fast breeder reactor designs and challenges; and international collaborations, including opportunities, challenges, and a look to the future. The format will allow for attendee interaction with the speakers to discuss the advanced reactor designs presented. The final section on international collaboration will encourage significant audience participation in the discussion.

Workshop Manager: Piyush Sabharwall, Idaho National Laboratory, USA
Speakers: David Pointer, Argonne National Laboratory, USA Eric Loewen, American Nuclear Society, USA

Workshop 15: Stress Tests in Nuclear Power Plants

Thursday, 8 a.m., Sharon
This workshop will help participants understand the history and ramifications of post-Fukushima Daiichi stress testing and its potential consequences for commercial power reactors.

Workshop Manager: Jaime Arenillas, Westinghouse Electric Company, Belgium
Speakers: Alvin Robertson, Westinghouse Electric Company, USA Massayoshi Nigashi, Westinghouse Electric Company, Japan Mathilde Van Lerberghe, Electrique de France, France

Workshop 16: Nuclear Medicine Technology

Thursday, 8 a.m., Morehead
The goal of this workshop is to provide an insight into the current status of radiation therapy and the latest scientific discoveries of the nuclear medicine technology. Participants will review the status of nuclear medicine in different countries.

Workshop Manager:

Workshop 17: Young Generation Strategic Planning

Thursday, 8 a.m., Independence
This workshop will focus on developing a mock strategic plan that will optimize the future of nuclear science and technology. The main topics to discuss are existing barriers that need to be removed to allow nuclear science and technology to better improve global social, environmental and economic factors and what can be done to better improve global social environmental and economic factors with nuclear science and technology within the next 10 years.

Workshop Manager: Christoph Rirschl, GNS mbH, Germany
Speakers: Miguel Millan, President, IYNC
Lisa Stiles, Former President, IYNC

Workshop 18: Women Going Critical in Nuclear

Thursday, 8 a.m., Trade
Women are steadily increasing their leadership positions and taking a critical role in the future of nuclear energy. This workshop will creatively explore female leadership and will help equip attendees with knowledge on how to better manage their careers.

Workshop Manager: Crystian Joppolo, Progress Energy, USA
Sophie Prevot, ONET Technologies, France
Speakers: Carol Barajas, Progress Energy, USA Margaret Mkhosi, Technology Innovation Agency, South Africa Coleen Siford, Ontario Power Generation, Canada Cristina Bucar, Nuclear Electrica, Romania
Rosa Yang, Electric Power Research Institute, USA Keiko Chitosi, Mitsubishi, Japan

Workshop Manager:

Workshop 19: Nuclear Power in a Diversified Energy Portfolio

Wednesday, 3 p.m., Independence
The place of nuclear in the global energy portfolio (wind, solar, coal, hydro) will be discussed. The participants will play a team game with fixed resources assigned to each country considering factors such as carbon, funding, demographics, politics, cultural and societal factors.

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Experts will deliver presentations about the impacts of Fukushima on their respective segment of the nuclear industry. Participants will then discuss lessons learned and present ideas for positive change in the speaker’s area of the industry.

Workshop Manager: Victor Kreft, AMEC NSS, Canada
Speakers: Kenji Tateisi, TEPCO, Japan Lauren Tosatto, Westinghouse Electric Company, USA

Workshop 14: Advanced Reactor Concepts: Highlights and Challenges

Thursday, 8 a.m., Harris
This workshop will be separated into three main sections: high-temperature reactors (HTR and ATR) with process heat applications, and current progress; fast reactor and fast breeder reactor designs and challenges; and international collaborations, including opportunities, challenges, and a look to the future. The format will allow for attendee interaction with the speakers to discuss the advanced reactor designs presented. The final section on international collaboration will encourage significant audience participation in the discussion.

Workshop Manager: Piyush Sabharwall, Idaho National Laboratory, USA
Speakers: David Pointer, Argonne National Laboratory, USA Eric Loewen, American Nuclear Society, USA

Workshop 15: Stress Tests in Nuclear Power Plants

Thursday, 8 a.m., Sharon
This workshop will help participants understand the history and ramifications of post-Fukushima Daiichi stress testing and its potential consequences for commercial power reactors.

Workshop Manager: Jaime Arenillas, Westinghouse Electric Company, Belgium
Speakers: Alvin Robertson, Westinghouse Electric Company, USA Massayoshi Nigashi, Westinghouse Electric Company, Japan Mathilde Van Lerberghe, Electrique de France, France

Workshop Manager:

Workshop 16: Nuclear Medicine Technology

Thursday, 8 a.m., Morehead
The goal of this workshop is to provide an insight into the current status of radiation therapy and the latest scientific discoveries of the nuclear medicine technology. Participants will review the status of nuclear medicine in different countries.

Workshop Manager:

Workshop 17: Young Generation Strategic Planning

Thursday, 8 a.m., Independence
This workshop will focus on developing a mock strategic plan that will optimize the future of nuclear science and technology. The main topics to discuss are existing barriers that need to be removed to allow nuclear science and technology to better improve global social, environmental and economic factors and what can be done to better improve global social environmental and economic factors with nuclear science and technology within the next 10 years.

Workshop Manager: Christoph Rirschl, GNS mbH, Germany
Speakers: Miguel Millan, President, IYNC
Lisa Stiles, Former President, IYNC

Workshop 18: Women Going Critical in Nuclear

Thursday, 8 a.m., Trade
Women are steadily increasing their leadership positions and taking a critical role in the future of nuclear energy. This workshop will creatively explore female leadership and will help equip attendees with knowledge on how to better manage their careers.

Workshop Manager: Crystian Joppolo, Progress Energy, USA
Sophie Prevot, ONET Technologies, France
Speakers: Carol Barajas, Progress Energy, USA Margaret Mkhosi, Technology Innovation Agency, South Africa Coleen Siford, Ontario Power Generation, Canada Cristina Bucar, Nuclear Electrica, Romania
Rosa Yang, Electric Power Research Institute, USA
Keiko Chitosi, Mitsubishi, Japan

Workshop Manager:
Technical Tours

IYNC 2012 is proud to offer six different technical tours that showcase companies and institutions in Charlotte and the surrounding region. These tours offer a unique opportunity to visit the facilities that contribute to the region’s significant nuclear presence.

Pre-registration is required for the technical tours and availability is based on a first-come, first-served rule. Be sure to bring your U.S. driver’s license or passport (a photocopy is NOT acceptable) to present to security for these tours. Participants must follow the tour dress code to attend.

Tour 1 – Electric Power Research Tour
Tour participants will visit the Electric Power Research Institute’s (EPRI) Charlotte offices and the University of North Carolina-Charlotte’s (UNCC) brand new Energy Production and Infrastructure Center (EPIC) facility. The EPRI portion of the tour includes four of its research labs featuring Ultrasonic Phased Array Technology, Steam Generator Management with Nondestructive Evaluation, and the Welding Repair Technology Center. The UNCC EPIC facility tour includes the Power Systems Education Laboratory, the Smart Grid Laboratory, and the 28-meter-tall High-Bay Structures Laboratory, which includes nuclear fuel handling equipment and 3D shaker tables for seismic simulation.

Tour 2 – Westinghouse Uranium Fuel Fabrication Tour
Participants will tour the Westinghouse fuel fabrication facility in Columbia, S.C. This facility is the headquarters for manufacturing operations in the USA and is the largest facility of its kind in the world. The tour will include the chemical, mechanical and emergency services facilities. Participants will learn about the conversion of UF6 gas into UO2 powder and then to USG7 fuel pellets. The process continues with rod loading, tube preparation, QC inspection and final assembly.

Tour 3 – Duke Energy’s Nuclear Power Plant and Siemens’ Steam Turbine Manufacturing Tour
Tour participants will tour either Duke Energy’s McGuire or Catawba nuclear station. These facilities are of a similar two-unit Westinghouse 4-loop PWR design and are both located near Charlotte. The tour includes a trip to the plant simulator and a walkthrough of the turbine building. Tour participants will also tour Siemens’ Steam Turbine and Generator manufacturing facility in Charlotte where they produce and service equipment for the nuclear and fossil power industries, including both 50 Hz and 60 Hz market. The facility offers a unique opportunity to see turbine-generators at all stages of manufacturing, assembly and testing.

Tour 4 – Palmetto Health Radiological Medicine and Surgery Tour
Participants will tour Palmetto Health’s facility in Columbia, S.C. The tour will include the Gamma Knife Department, the Radiation Oncology Department and the Nuclear Medicine Department. The tour will begin with a presentation on the use of radiation and radioactive material in a medical setting. Participants will take a walkthrough tour of the gamma knife with experts discussing the operations of the department including:

Note: This tour group will meet with the University of South Carolina (USC) Engineering tour group for lunch and will participate in the USC tour in the afternoon.

Tour 5 – University of South Carolina (USC) Engineering Research
Tour Participants will tour the engineering research laboratories at the University of South Carolina located in Columbia, S.C. In the morning, attendees will explore the Thermal Hydraulic Laboratory, the Condition-Based Maintenance Research Center and the Solid Oxide Fuel Cell Center. In the afternoon, the Palmetto Health Radiological Medicine and Surgery Tour group will join us for a short presentation on USC’s nuclear research programs and a tour of the Nuclear Materials Laboratory.

Tour 6 – SCE&G’s V.C. Summer Units 2 & 3 New Nuclear Construction Site Tour
In 2009, South Carolina Electric & Gas Company (SCE&G) began preconstruction of two 1,117-megawatt Westinghouse AP1000 reactors at V.C. Summer Nuclear Station in Fairfield County, S.C. Tour participants will see firsthand the impressive scope and scale of building a new reactor, including a massive crane with a 560-foot tall boom that will make lifts at V.C. Summer weighing nearly 2,000 tons.
A selected set of papers that are presented at IYNC2012 will be published in the conference journal Energy Conversion and Management.

Guest Editor:
Sümer Sahin, Energy Conversion and Management, Turkey

Guest Reviewers:
Antonio Lafuente, Lawrence Livermore National Laboratory, USA
Landon Kanner, ANSYS, USA
Eugene Schwageraus, Massachusetts Institute of Technology, USA, Ben-Gurion University of the Negev, Israel

Technical Program Awards
The Technical Program Committee will grant the following awards during the Awards and Closure Session of the IYNC2012 conference:
- Best Summary
- Best Oral Presentation
- Best Poster

Public Information Day
The teacher workshop will prepare attendees to teach radiation basics, radiation detection techniques, and the uses of nuclear science and technology in society. Teachers will also have the opportunity to explore career options within the nuclear realm.

Teachers will participate in hands-on activities and receive a number of supplementary resources to bring back to their classrooms.

Steve Harris, Savannah River National Laboratory, USA
Public Information Day Chairs IYNC2012

Special Events

Sunday, 5 August
The IYNC Games, 1-4 p.m. Providence Promenade
An IYNC tradition, these games are used to jump-start your networking in a relaxed and fun environment. Participation is optional, but everyone is encouraged to enjoy active games with an American twist.

Opening Reception at the Mint Museum, 6-9 p.m.
Kick off IYNC2012 in style. Participants will get the opportunity to meet with other NAVGN and IYNC members from across the world. The event will be held at the Mint Museum Uptown, located in the heart of Charlotte’s burgeoning uptown. This event’s dress code is business casual. For international attendees, this is equivalent to informal dress attire. Please no denim or suits.

Note: This event is a few blocks from the hotel. Please meet in the Westin lobby at 5:45 p.m. to walk over to the event. For security purposes, only participants with their conference badges will be allowed into the event.

Monday, 6 August
Cultural Event: A Taste of the American South, 5:30 p.m.
Treat your taste buds to a unique culinary experience that will feature both food and drinks from the area. This is a casual networking event, so casual dress is acceptable, but don’t forget your business cards!

Note: This event is located outside of the hotel. Roundtrip transportation will be provided. Buses will load at 5:30 p.m. from the hotel lobby. For security purposes, only participants with their conference badges and event tickets will be allowed onto the buses and into the event.

Wednesday, 8 August
IYNC Board of Directors Meeting, 6-9 p.m., Grand Ballroom
The International Meeting of the Board of Directors of the IYNC will be held on Wednesday, Aug. 8 in the Westin Charlotte.

NAVGN Local and Regional Leads Meeting, 6-9 p.m., Grand Ballroom
All NAVGN members involved with local chapter and regional leadership are invited to attend. In addition to covering selected topics, the Knowledge Transfer & Retention Committee will discuss their recent survey results.

Thursday, 9 August
Farewell Dinner, 6-10 p.m.
The Westin Charlotte
Conference participants will have the opportunity to formally say good-bye to their fellow IYNC and NAVGN members over a formal sit-down dinner. Participants are encouraged to dress in formal attire and wear dancing shoes for this event. For security purposes, only participants with their conference badges and event tickets will be allowed into the event.

Saturday, 11 August
Optional Saturday Cultural Event, 10 a.m.-5 p.m.
U.S. National Whitewater Center
Note this is an additional charge: $75 per person

North Carolina offers hundreds of attractions for entertainment, but there is nothing like the adventure of the U.S. National Whitewater Center. The USNWC is the best place for family and friends to play outdoors and have fun. Home to the world’s largest man-made whitewater river and with many different water and land activities, the USNWC is Charlotte’s ultimate playground. Make sure to wear clothes that you can be active in as well as get dirty or wet. Secure footwear is required for activities such as whitewater rafting. (Flip-flops are not permitted.) The additional price per participant includes an AllSport daily pass at the National Whitewater Center and round trip transportation from the Westin.

Note: This event is located outside of the hotel. Roundtrip transportation will be provided. Buses will load at 9:45 a.m. and leave promptly at 10 a.m. For security purposes, only participants with their badges who preregistered will be allowed onto the buses and into the event.
Important Conference Information

INTERNET ACCESS
Complimentary high-speed Internet access is available in the lobby, lobby bar, Starbucks, Ember Grille and other public areas of the hotel. Wireless high-speed Internet access is available for $12.95 per day in guest rooms.

DRESS CODE
Business casual attire is recommended for the daytime sessions. For international attendees, this is equivalent to informal dress attire. Formal-wear (and dancing shoes!) is suggested for the Congress Farewell Dinner. For clarity, this is suit and tie for the gentlemen and equivalent for ladies (party frock!).

During the technical tours, safety is key. Therefore the following is advised:
• Proper clothing and footwear are required to attend any of the technical tours. Participants should dress appropriately on the day of the tour or run the risk of being denied access to the facility.
• You should wear shoes or boots that have hard, flat soles and substantial uppers with both closed toes and closed heels. Comfortable walking shoes or leather sneakers are recommended. No clogs, high heels, sandals, crocs or any variation are permitted.
• Long pants are required. No skirts, capri pants, shorts, dresses or kilts are permitted.
• No sleeveless or tank-top shirts are permitted.

Please note the tour will take place come rain or shine. It can be windy, hot and/or raining on the day of the tour.

NAME BADGES
As a participant, you must wear your conference badge through all the events (daytime and evening). In some cases, it will act as your entrance ticket to the evening events.

YOUR INDIVIDUAL IYNC2012 ITINERARY
At the time of registering for IYNC2012, you will have had the opportunity to customize your conference schedule. This customized schedule will be given to you when you pick up your registration materials. Additional guest tickets for the evening special events and Saturday cultural tours may still be available. Check with the registration desk if you would like to purchase a ticket for these activities.

EMERGENCIES & ENQUIRIES
The registration desk is open to answer any questions regarding the practical organization of the conference. Registration will be open at noon on Aug. 5, 2012, and at 7 a.m. each day thereafter.

Emergency Phone Numbers
• In the hotel, dial 0 to be connected to the hotel operator. They will assist you with your emergency.
• Outside the hotel, dial 911 to be connected to policy, fire or ambulance services.

PARKING
The Westin Charlotte has a large parking structure attached to the main building. Self-parking is available for $18 per day and valet is available for $25 per day.

TRANSPORT
Taxi cabs are readily available at the Charlotte-Douglas International Airport. The 7.3-mile ride should cost $30 and take 13 minutes to arrive at The Westin Charlotte. The hotel concierge can help make return trip reservations.

Transport to the evening cultural event on Monday, Aug. 6, the technical tours and the Saturday optional event will be available for participants who have indicated participation on their registration. All buses will depart from the Stonewall Street exit in the lobby of The Westin Charlotte.

TIME DIFFERENCE
Charlotte is in Eastern Standard Time, USA (-4hrs Greenwich Mean Time)

CURRENCY
The currency of the United States is the dollar and cent.

WI-FI
Many coffee shops and locations offer free Wi-Fi service in Charlotte.

SMOKING
Smoking is not permitted anywhere inside the Westin, including the guest rooms. Smoking is not permitted inside any public areas in the city. Please look for designated smoking sections.

AGE RESTRICTIONS
The drinking age in the U.S. is 21. The age to buy tobacco products is 18.

TIPPING
Tipping is customary in the U.S. for cab rides and meals. Ten to 15 percent is expected and 20 percent is for exceptional service. Gratuity may be automatically added onto meals with large parties, so be sure to check your bill first.

LOCAL TRANSPORT
Please note that participants will need to arrange their own airport transfers from their hotels. Contact the front desk for your travel needs.

MEDICAL SERVICES
CVS Pharmacy – Located in the Epicenter at 210 East Trade Street – 3 blocks from the Westin Charlotte
Hospital – Carolinas Medical Center – 1100 Blythe Blvd. – 2 miles from the Westin Charlotte

BANKING
The Westin Charlotte will exchange currency for U.S. dollars in their executive office on the third floor.

PHONE
Long-distance calls can be direct dialed by using the appropriate country code (91 for the U.S.) AT&T, Verizon and Sprint all make calling long distance relatively easy, but you may find the local access number blocked in many hotel rooms. A way around this problem is to ask the hotel operator to connect you to the access number.
Charlotte’s Got A Lot!

Charlotte, N.C., has recently been recognized as the energy capital of the United States. Several nuclear companies have opened offices in the Queen City, and more than 240 companies directly related to the energy sector reside here. Charlotte has two nuclear power plants within 30 miles, Catawba and McGuire Nuclear Stations, owned by Duke Energy Corporation.

Charlotte has long been known as the second-largest financial center (only behind New York City) in the U.S., hosting Bank of America, Wells Fargo, and Ally among other banking institutions.

The Carolina Panthers of the NFL and the Charlotte Bobcats of the NBA are professional American sports teams that play in Uptown Charlotte. Minor league baseball and hockey teams also call the Queen City home.

Charlotte has grown rapidly the past two decades and is similar in size to Valencia, Spain; Athens, Greece; and Amsterdam, Netherlands.

Charlotte (and Surrounding) Activities:
- Bechtler Museum of Modern Art
- Carowinds (amusement park)
- Charlotte Motor Speedway
- Crowder’s Mountain
- South Park Shopping Mall
- U.S. National Whitewater Center
- Vineyards

For those with extended holidays, consider traveling to:
- Atlanta (four hours away) – Atlanta Zoo, Atlanta Braves (professional baseball team), shopping
- Charleston (three hours away) – beaches, golf, Naval ships, shopping
- Asheville (two hours away) – Biltmore Estate, Blue Ridge Parkway (scenic drive), hiking, Grove Park Inn

MAP OF CHARLOTTE
This self-guided walking tour of Uptown Charlotte includes sites of historical, artistic, architectural and entertainment interests.

A schematic layout of the venue is presented on the last page of this booklet for your benefit.
Technical Track Oral Presentations

Track 1: Strategic Planning & Professional Development
Track Chair:
Steve Ward, Center of Nuclear Infrastructure Development, USA

1.1 Wednesday 8-9:30 a.m.
• It Takes A Village
  Amy Buu Keller, Westinghouse Electric Company, USA

• Communicating in a Global Industry: An International Network for Nuclear Professionals
  Jamie William Townes, World Nuclear Association, UK

• Fast-Tracking Your Career Through Networking
  Steven Lee Ward, Center for Nuclear Infrastructure Development, USA

• Selecting and Developing Effective First-Line Supervisors in the Nuclear Power Industry
  Ben Fearing, Brian Juncker, Mary Jo Rogers, Strategic Talent Solutions, USA

1.2 Wednesday 1-2:30 p.m.
• Challenges in Developing New Nuclear Projects - Cernavoda NPP Units 3&4 Project
  Ionut Zaharow, Andrei Goicea, Emil Macovei, S.N. Nuclearclectrica, Romania

• Understanding Guardianship
  Nathan Robert Romine, Siemens, USA

• EDF’s construction of new Nuclear Power Plants in the UK
  Juan Alberto Gonzalez, ITN Consulting Group, France; 2EDF, France

Track 2: Plant Design, Construction, Operation, Maintenance & Decommissioning
Track Chair:
Daniel Gregory, Health and Safety Executive, Office of Nuclear Regulation, UK

2.1 Monday 1:30-3 p.m.
• Total Refurbishment of the Colfrentes NPP Cooling Towers
  Rafael Rubio Montaña, Ángel Peinado Pérez, Jesús Prieto Urbano, 1Iberdrola, Spain; 2Iberdrola Ingeniería y Construcción, Spain

• Solution for inspection of spent fuel storage tanks
  Jean Alinat, Comex Nucléaire/ONET Technologies, France

• Digital Instrumentation and Control Upgrades at Koeberg Nuclear Power Station
  Darren Bissell, Eskom, South Africa

• MRB-227 License Renewal Activities at R.E. Ginna Nuclear Power Plant
  Robert Marcello, Jy Wells, CENG LLC, USA

2.2 Monday 3:30-5 p.m.
• Oil Removal from OPAL’s Heavy Water Circuit
  Simon David Brezlin, Australian Nuclear Science and Technology Organisation, Australia

• Analysis of Human-Related Events for Domestic Nuclear Power Plants using a Root Cause Analysis Method
  Ji-Tae Kim, Korea Institute of Nuclear Safety, Republic of Korea (South Korea)

• Analysis of an Operator’s Action to Enhance the Safety of an Advanced Nuclear Plant
  Sang Hee Kang, Ho Rim Moon, Dae Hun Kim, Korea Hydraulic Nuclear Power Co., Ltd., Republic of Korea (South Korea)

• Chernobyl Nuclear Power Plant New Safe Confinement
  Petro Brytan, SIP PMU ChinPP, Ukraine

2.3 Tuesday 8-9:30 a.m.
• Euryhaline Hydroid’s (Cordylophora Caspia) Influence in TVO’s Nuclear Power Plant Function
  Saku Näyrä, Teollisuuden Voima Oyj, Finland

• A Survey of Boiling Water Reactor Jet Pump Operating and Degradation Data
  Matthew O’Connor, Electric Power Research Institute, USA

• Corrosion Effect on Belleville Washers on Main Steam Safety Valves at Koeberg Nuclear Power Station
  Astrid Kim Gordon, Eskom, South Africa

• FME Zone Fortification Through the Coaction of Process Controls and RFID Tagging
  Sfarzaf M. Taj, Exelon Generation, USA

2.4 Tuesday 10-11:30 a.m.
• Hidden Failures in Float Switches
  Timothy Rownes, Janet Baird, Australian Nuclear Science and Technology Organisation, Australia

• Solving the Need for Internal Inspection Through NDE
  David Bryan Scott, Electric Power Research Institute, USA

• Analysis of Weld Overlay for Non-Axisymmetric Pressurizer Safety and Relief Valve Nozzle
  Dubo Hong, Jongie Kim, Hakung Lee, Doosan Heavy Industries and Construction, Republic of Korea (South Korea)

• Reflections on a Digital Upgrade
  Ryan Patrick Nash, AREVA Inc., USA

2.5 Wednesday 8-9:30 a.m.
• Structural Evaluation of Reactor Operated in Elevated Temperature Condition
  Seung-bum Ryu, Jung-hun Lee, Gyeong-hoi Koo2, 1Doosan Heavy Industries and Construction Co. Ltd., Republic of Korea (South Korea); 2Korea Atomic Energy Research Institute, Republic of Korea (South Korea)

• Nuclear Construction: Challenges of Design and Safe Build-Out to Maintain Construct and Operating License
  Aric Randolph Cowne, URENCO Inc., USA

• E.ON’s Involvement in the Completion of the Basic Design and the Reprocessing of Spent Nuclear Fuel
  Marc Weidenfeld, Holger Tietze-Jaensch, Stefan Seyber, 1Research Center Jülich GmbH, Germany; 2Federal Office for Radiation Protection, Germany

• Experimental Tests Using a Sequential Separation Procedure for Actinide Determination in Liquid Samples
  Ruxandra Cristina Toma1, Cristian Dumală2, Ilie Prisecanu1, 1University Politehnica Bucharest, Romania; 2Institute for Nuclear Research, Romania

3.1 Monday 1:30-3 p.m.
• Chemical Analysis of Fission Products Issued From Reprocessing of a Uranium Molybdenum Alloy Nuclear Fuel
  Khalil Abbas Ghashei, Alain Vian, AREVA, France

• Burn Up Measurement in La Hague Facility
  Benjamin Drapez, Philippe Doumerc, AREVA, France

• Sphere-pac Fuels for the Transmutation of Actinide Waste in Fast Reactors
  Pieter Ralph Hambil, Elio d’Agata, 1Nuclear Research and Consultancy Group, Netherlands; 2European Joint Research Center-Institute of Energy and Transport, Netherlands

• MOX Fuel Fabrication Facility: Construction of a Proven Design for the Safe Disposition of Surplus Nuclear Weapons
  Peter James Henry, Shaw AREVA MOX Services, LLC, USA

3.2 Wednesday 8-9:30 a.m.
• Investigation and Management of the Integrity of Intermediate Level Waste Packages During Long-Term Interim Surface Storage
  Alexandra Charlotte McHugh, Sellafield Ltd, UK

• Needs for Extending Dry Storage of Spent Nuclear Fuel
  Keith Waldrop, John Kessler, Electric Power Research Institute, USA

• Product Quality Control of Intermediate Level Vitrified Nuclear Waste from Radioactive Rinseings From the Reprocessing of Spent Nuclear Fuel
  Marc Weidenfeld, Holger Tietze-Jaensch, Stefan Seyber, 1Research Center Jülich GmbH, Germany; 2Federal Office for Radiation Protection, Germany

• Sphere-pac Fuels for the Transmutation of Actinide Waste in Fast Reactors
  Pieter Ralph Hambil, Elio d’Agata, 1Nuclear Research and Consultancy Group, Netherlands; 2European Joint Research Center-Institute of Energy and Transport, Netherlands

• MOX Fuel Fabrication Facility: Construction of a Proven Design for the Safe Disposition of Surplus Nuclear Weapons
  Peter James Henry, Shaw AREVA MOX Services, LLC, USA

3.3 Wednesday 1-2:30 p.m.
• Seismic Monitoring of the Planned Repository Site for Spent Nuclear Fuel at Olkiluoto, Finland
  Marianne Malm, Jouni Sari, 1ÅF-Consult Oy, Finland

• Exposure Evaluation for the Clean-up Activities of the Technological Spaces at the Romanian VVR-S Research Reactor
  Alexandru Octavian Pavelescu, Horia Hulubei National Institute of Physics and Nuclear Engineering (IFIN-HH), Romania

• New Detector, Based on Boron 10 Coated Proportional Counters
  Fatima M’Rabet, Onextra, France

• Priorities to Support Decision-Making for the Pursuit of Advanced Fuel Cycle Technology Development
  Andrew C. Sowder, Albert I. Machiels, John H. Kessler, Electric Power Research Institute, USA
4.1 Monday 1:30-3 p.m.
- Political Activism: Let Our Voices Be Heard
  Brittney Vegso, AREVA, USA

- Public Opinion in Europe after Fukushima
  Daphné Charleston, Mark O’Donovan, Tellervo Taipale, FORATOM, Belgium

- The International Non-Proliferation Regime: The Dual-Use Problem and Nuclear Trade
  Tom Coppen, Utrecht University, Netherlands

- Megatrends to Development Program
  Enrico Mainardi, AmaddeoNucleare S.p.A., Italy

4.2 Monday 3:30-5 p.m.
- General Fundamentals Online Study Application
  Allen John Murrow, Exelon Nuclear - Peach Bottom Atomic Power Station, USA

  Rizwan Ahmed, Jeongtae Cho, Mhyoung-Suk Kang, Gyunyoung Heo, Kyung Hee University, Republic of Korea

4.3 Tuesday 8-9:30 a.m.
- Economic Assessment of Fuel Management Strategies for Koeberg Nuclear Power Plant
  Ruan Steyn, Eskom, South Africa

- Used Nuclear Fuel Storage Location System Modeling for Economic Policy Analysis
  Samuel Brinton, Mujid Kazimi, Massachusetts Institute of Technology, USA

5.1 Monday 1:30-3 p.m.
- Nuclear Workforce Development: A Case Study of Certified Nuclear Engineering Professional (CNEP)
  Pushya Mitra Singamaneni, Ramesh Vuttukur, SCAES DIMENSIONS, India

- Qualification and Certification Concept for Maintenance Personnel in Reactor Services
  Nina Müller, Thomas Kumpf, AREVA, Germany

5.2 Monday 3:30-5 p.m.
- The Post-Fukushima Accident Lessons Learned in Terms of Risk Communication
  Matthew Cromwell, Dan Anders, Donna Baek, Jason Colpetzer, Ryan Bezzant, Ryan Fruth, Toni Gutknecht, Anne McCarty, Paul Nardone, Brain Noury, University of Idaho, USA

- Radiological Environmental Monitoring at South African Nuclear Energy Corporation
  Nonkululeko Fionah Khathi, South African Nuclear Energy Corporation (Necsa), South Africa

- What is Behind the EU Stress Test – How Safe Are German Nuclear Power Plants?
  Thorsten Kues, RWI Power AG, Germany

- Post-Fukushima Focus on Fire Protection
  Shobhit Shanker, Malcolm Rawlingson, AMEC NSS, Canada

5.3 Tuesday 8-9:30 a.m.
- Application of a High-Sensitivity Neutron Detector Using a Wave-length Shifting Fiber to Subcriticality Measurements
  Takahiro Yagi, Cheol Ho Pyeon, Tuyoshi Misawa, Kyoto University Research Reactor Institute, Japan

- Transportation Safety Assessment for the Shipment of U.S.-Origin Spent Fuel from Necsa Site to Richards Bay Harbour
  Dipuo Olga Mphahlele, Harry Swart, South African Nuclear Energy Corporation (Necsa), South Africa

6.1 Wednesday 8-9:30 a.m.
- Development of a Core Management Tool for MYRRHA
  Rafael Rubio Montaña, Javier Fernández Cortés, Baltasar Inclined Fuel Transfer System

- New Shielding Doors to Access to the Blind Flange of the Inclined Fuel Transfer System
  Vanesa Valleti, Bernard Gastaldi, Alain Santamarina, Monika Chhor, AREVA, France

- Lead with High Content of 208Pb-isotope: Upgrade of Fast Reactor Safety
  Evgeny Gennadevich Kulikov, Vladimir Aleksandrovich Aps, Anton Aleksandrovich Chekin, Gennady Genrihovich Kulikov, Russian Nuclear Research University MEPhI, Russia

- Evaluation of Atmosphere Dispersion Model for PSA Level-3
  Monika Chhor, 1CEA, France; 2AREVA, France

- Techno Economic Analysis of the 100MWth (35MWe) Thorium Nuclear Power Plant
  Yvette Brits, STI, South Africa

- Revenue Management through Alternate Operation Strategy at Nine Mile Point Unit 2
  Teo Wook Ahn, CENG LLC, USA

- Development of the Inclined Fuel Transfer System
  Shobhit Shanker, Malcolm Rawlingson, AMEC NSS, Canada

- Estimation of Thermal Characteristics of a Fusion Reactor
  Following an Accident
  Rizwan Ahmed, Jeongtae Cho, Mhyoung-Suk Kang, Gyunyoung Heo, Kyung Hee University, Republic of Korea (South Korea)

- Evaluation of the Shielding Ability of a Special Concrete Mixture for Slow, Epithermal and Fast Neutrons
  Mabuti Jacob Radebe, Frikkie De Beer, Tankiso Modise, Mokgobi Ramushu, South African Nuclear Energy Corporation (Necsa), South Africa

- Criticality Safety Assessment for Uranium Residue in a Facility
  Mohammad Ridwanulqadri Akbar, South African Nuclear Energy Corporation (Necsa), South Africa

- What is Behind the EU Stress Test – How Safe Are German Nuclear Power Plants?
  Thorsten Kues, RWI Power AG, Germany

- Post-Fukushima Focus on Fire Protection
  Shobhit Shanker, Malcolm Rawlingson, AMEC NSS, Canada

- Nuclear Technology in Nigeria: Profitable Today
  Stephen O. Ariyo Dahunsi, Nigeria Atomic Energy Commission, Nigeria

- Problems and Prospects of Nuclear Energy in India
  Akansh Choudhary, Indian School of Mines, India

- Problems and Prospects of Nuclear Energy in India
  Akansh Choudhary, Indian School of Mines, India

- Assessment of the Influence of Thermo-Chemical Phenomena on the Heat Fluxes into the RPV during In-Vessel Melt Retention
  Patrick Levi, Manfred Fischer, AREVA, Germany

- Transportation Safety Assessment for the Shipment of U.S.-Origin Spent Fuel from Necsa Site to Richards Bay Harbour
  Dipuo Olga Mphahlele, Harry Swart, South African Nuclear Energy Corporation (Necsa), South Africa

- Vertical and Spatial Distribution of Radionuclides in Inter-Tidal Environments: Sellafield Discharge Since 1952
  Jamie Steel, Ian Croudace, Mark Wenman, Imperial College London, UK; 2University of Southampton, UK

- Political Activism: Let Our Voices Be Heard
  Brittney Vegso, AREVA, USA
Executive Committee
General Co-Chair & IYNC Network President:
Miguel Millan, Westinghouse Electric Company, Spain
General Co-Chair:
Craig Albers, Fluor Corporation, USA
Local Co-Chair:
Landon Kanner, ANSYS, USA
Finance Chair:
Melissa Crawford, Siemens, USA
International Corporate Sponsorship Chair:
Igor Vukovic, University of Zagreb, Croatia
North American Corporate Sponsorship Chair:
Christine Csizmadia, Nuclear Energy Institute, USA
Professional Development Program Chair:
Jimmy Hennen, Westinghouse Electric Company, USA
Public Relations Chair:
Lavinia Rizea, SN NUCLEARELECTRICA, Romania
Publications Chair:
Amy Bird, Sellafield Ltd, UK
Registration Chair:
Elizabeth McAndrew-Benavides, Nuclear Energy Institute, USA
Technical Program Chair:
Wim Uyttenhove, SCK-CEN, Belgium
Technical Tours Chairs:
Ryan Boyle, Duke Energy Corporation, USA

Other Organizing Committee roles:
Special Events Chair:
Misha Swanson, CENG LLC, USA
Ex-Com Coordinator:
Robert Ashworth, MPR Associates, USA
Promotional Items Chairs:
Kristine Madden, NextEra Energy, USA
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