

ANS Savannah River Section Neutrino 2016-17



ANS



The Neutrino

Section Officers:

Section Chairman	Karen Bobkowski
Section Vice-Chairman	Tinh Tran
Secretary	Tracy Stover
Finance (Treasurer)	Daniel Thomas

Executive Committee and Liaisons:

Program	Kevin O'Kula
Publication	Phil Cupp
Administrative Assistant	Diane Shelton
Topical	Rob Addis
Education Outreach	Bob Eble
CNTA Liaison	Jeff Brault
Retiree Liaison	Mel Buckner
Arrangements	Tim McKinsey
Plant Vogtle Liaison	Jeffrey Hausaman
Young Members / NAYGN	Mary Mewborn
Immediate Past Chair	Chuan Wu

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Chairman's Greetings:

Hello all!

I'll start this Chair's message by saying a huge thank you to all of our members for making this the outstanding section that it is! The American Nuclear Society Savannah River Section is an incredible collaboration of various nuclear industry members and is actively engaged in the local CSRA community. Our contributions to promoting nuclear, developing our members, and supporting STEM learning are important steps to aid our communities. These efforts have not gone unnoticed, either! This past fall the ANS - Savannah River Section was recognized as the Overall Best Large Local Section! This is a wonderful culmination in hard work by our executive committee, as well as strong engagement by each and every one of our members. So thank you - and let's keep up this momentum!

Over the past several years that I have been a part of this section - and had the wonderful opportunity to serve on the executive committee - I have continued to be amazed. This local section does so much towards the purpose of ANS - to promote awareness and understanding of the applications of nuclear science and technology. The Savannah River section uses its unique advantage of touching various pockets of the nuclear industry to increase member awareness of numerous topics, and spend a tremendous amount of time out in the community. Our technical meetings serve to increase the knowledge and development of our membership, and we constantly strive to find new and different topics.

Our CSRA students see a large portion of our efforts - and I can speak from experience that industry involvement in communities has the capacity to inspire and develop the local youth - it's exactly what drew me to nuclear. ANS-SR has a strong presence in various events in the community relating to STEM careers, and each time, students are genuinely interested. Sharing our passion with them is what will ensure a strong future for nuclear. And who better to encourage them than their teachers? Supporting teacher training is just another way that we can get more nuclear knowledge and understanding to the community. The Dick Benjamin Memorial Scholarship is in its 4th consecutive year and growing in both monetary contribution and in involvement. Each year our selection committee sees so many incredible applicants that the hardest part is picking just a few! The goal of the scholarship is to support local students in their pursuit of STEM careers in either Tech School or a 4 year degree, with an emphasis on careers in nuclear.

Last year culminated in hosting the Tritium 2016 Conference in Charleston, SC - bringing together international participation. Following the success of the conference, the ANS - SR and Columbia sections applied for, and will be joint hosting the 2019 Probabilistic Safety Assessment and Analysis (PSA) Conference. Our incredible membership and leadership ensured a successful event last spring, and I have every confidence that we will do the same in two years.

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As I close this year as chair, I encourage you all to get even more involved, whether it be volunteering at another event, inviting friends and colleagues to technical dinners, coming out for trivia, or joining the executive committee. Even small engagement can have a large impact on the section, community, and industry.

In the current nuclear policy and industry uncertainty throughout the country, ANS stands in a powerful position to make a difference. I am proud to have been able to serve this section the past two years - and can't wait to see it continue to see it thrive.

Thank you,

Karen Bobkowski

2016-2017 ANS-SR Chair

Outreach:

SEED 2016

Dan Thomas, Marty Macher and Bob Eble attended SEED in the morning, and Brent Bland, Sara Gibboney and Fred Pilot in the afternoon. Dan kept the fission chamber going all morning with no accidental criticalities. Just a few damaged mouse traps but we had spares. We had one event that was a first. Dan set up the array as usual but when the students dropped the balls in, no reaction occurred. The spacing may have been too large. However, as in all probabilistic events, this has some probability of occurring. Sara and Fred held down the fission chamber in the afternoon and increased its production to every 15 minutes. Great job. Again I had a few students with nuclear enlightenment. One young girl, about 5 years old, waited patiently until her older brother had completed his quick survey of all the objects on the table. He became bored and put the detector down. She looked at the detector and waited for me to show her the detector and how it worked. Then she surveyed the objects on the table. I asked her, "What is the source of the clicking she was hearing?" She says, radiation. I asked, what is the highest source of radiation on the table? She moves the detector over the fiesta ware plate. I ask, what is the source of radiation in the plate? She says, Radium. Awesome. She continues to cover the plate with aluminum. I ask, why does the signal decrease? She says, because the radiation is blocked. I award her with the nuclear scientist sticker. Her mother smiles.

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We also had fun with the chart of the nuclides. Many students and their parents came over to answer the SEED question, name 5 naturally occurring radioisotopes. So after 5 or 10 minutes of introduction to the table, I ask for them to answer their question. Tritium, uranium, thorium, carbon, and potassium are the common responses. One student went a little further. He identified cadmium-113, rubidium-87 and Osmium-186. We then talked about radio isotopic dating and neutron capture.

We had about 300 students visit our booth primarily for the fission chamber show and about 50-60 students who stayed longer for the radiation exhibit. Student were attentive and well behaved. CNTA also participated and were located next to us. They had a hand held gamma spectrometer from the 1980s. They used our Co-60 source to show how it worked. They also had a UV flashlight that showed florescence in our uranium balls. We will have to invest in one of those.



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STEM

Guinyard Butler MS Barnwell, SC on March 30, 2017

Four classes of 7th and 8th grade students attended, about 20-25 students per class. The class was divided into 3 groups and rotated them through the 3 presentations: Nuclear chemistry with Brian McElwain and Ben Karmioli; Radiation dose with Shanteka Glover and Shirley Von Beck and radiation science and nuclear fission with Bob Eble and Dan Thomas. Special thanks to Steve Smith, GBMS STEM coordinator and Melanie Corell, science teacher for setting up this event.



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Williston April 22, 2017

Dan Thomas and Bob Eble participated in the DIG STEM festival in Williston, SC representing NS/Areva and MOX. It is an open festival to promote science education in the community. Dan and Bob brought the usual fission chamber, PWR fuel assembly, radiation sources and a detector, and Areva booklets. We presented to about 60 students and parents during the day. Dan set up the fission chamber 8 or 9 times throughout the day.



Future City



On January 21, 2017 ANS and Citizens for Nuclear Technology Awareness (CNTA) co-sponsored and judged a "Best Energy System Award" at the Future City competition. The Future City Competition is a national program sponsored by DiscoverE (formally known as National Engineers Week Foundation) to promote technological literacy and engineering to middle school students. This competition is an annual South Carolina Regional Future City Competition. The goal is to help middle school students better understand the practical applications of math and scientific principles. Since the program began, it has been recognized by the education and engineering communities as an innovative learning approach.

The "Best Energy System Award" winner was St. Mary on the Hill Catholic School.

Future City name -Zoeaublaur

Teacher-John Allen

Mentor-Janet Yonesaki

Students-Zoey Koltz, Lauren Rogers, Aubrey Yonesaki

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The First Place Regional Winner was St. Mary on the Hill, Augusta, GA "Virdeca". Lisa Walker (Mentor), Jude Walker, Kaitlyn Thomson, Claire Miller, and John Allen (Educator)

Second Place was "Magdalena James Gore (Educator), Savannah Padgett, Rebeka Rahman, Noah Lindler, and Eugene White (Mentor)

Third Place "Macassemi" Mackenzie Bruce, Emily Nguyen, Cassie Peterson, and Rob McMahon (Educator)



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Boy Scouts

Dan Thomas and Bob Eble participated in the St. Mary's Boy Scout merit badge program on May 9th and 16th. Dan presented the history of nuclear science and basic radiation science on May 9th and performed two experiments, build an electroscope and a cloud chamber on May 16th. They also built a model atom using quark theory. The scouts were enthusiastic and well behaved and had good questions. One scout enquired about the makeup of a used fuel assembly. He was surprised that it contained valuable isotopes but was considered waste. We went to the chart and discussed the valuable isotopes of Cobalt-60, U-235, Pu-239, etc. We briefly discussed using "spent" fuel in advanced reactors.



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STEM 2017

On Thursday February 23rd, Dan Thomas and Bob Eble met with Aiken Middle school students and parents for their STEM program. We presented our radiation detection system and the mouse trap fission chamber and spoke about the nuclear reactor energy system. There were about 100 students involved. Special thanks to Audrey Breland and Principal Scott Floyd for giving us this opportunity.



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2017 Teachers' Workshop

The following article was published in the June 24th edition of the Augusta Chronicle. The local section was also involved with this workshop. See Mel Buckner in the pictures below.

Summer program turns teachers into nuclear students

By Thomas Gardiner

Tables turned for a dozen teachers this week as they swapped roles and sat behind desks as students during the Southeastern Summer Nuclear Institute, organized by the Citizens for Nuclear Technology Awareness. The annual professional development course wrapped up its third year after a three-day stretch of classes, tours and guest speakers.

Teachers traveled to the University of South Carolina Aiken from as far away as Atlanta and Greenville, S.C., to take part in the institute. "I got a notice about the program from our district professional development," said Dr. Laurel Sullivan, a physical science and biology teacher from Spring Hill High School in Lexington, S.C.

"I was interested because my son is in a nuclear field in the Navy and I wanted to understand more. We live very close to the V.C. Summer nuclear plant, too. Since we are a career pathways magnet school, this information will help guide students who want to work at the plant."

The nuclear institute included tours of several nuclear connected entities from the defense, energy and medical industries. The group toured Savannah River Site, Plant Vogtle and the nuclear medicine department at Augusta University.

"This year is my first year with SSNI, but we did add a few aspects to this year's tours," said Citizens for Nuclear Technology Awareness Director Jim Marra. "We did an expanded tour of Savannah River National Laboratory. That gave the teachers a chance to see the research side of SRS missions along with the operational plant side."

Marra said the institute's goal is to get accurate information about nuclear activities into the hands of educators. He said that information could help society as a whole understand its relation to nuclear work and the importance of nuclear efforts in energy, medicine and national defense.

"When we teach in class, a lot of the teens pay more attention to things with a little danger, so I think I tend to kind of ramp those things up in class," said Karis Texidor, a physical science and Advanced Placement chemistry teacher at Evans High School. "After seeing more of the occupational side, not just the chemistry side of nuclear, I think I may have done a disservice to some of those students. The biggest takeaway from this is a solid, balanced nuclear education."

Sullivan and Texidor both said they gained new perspectives on the occupational aspects of the nuclear industry.

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“There is a lot of opportunity for skilled labor at SRS,” Sullivan said. “I’m going to take back a better understanding of career opportunities for our students that you don’t need a four-year degree for. SRS was interesting because they would offer workers new positions and then train them to do that job. They really invest in their workforce.” Marra said he hopes the program can expand farther into the South in coming years. “The Southeast region is important in nuclear industry,” he said. “We had teachers here from technical institutes, from their recruiting teams.

“We want a broader range of teachers and staff to be able to take information back to better be able to help students make decisions about their futures.” Said Texidor: “From the chemistry side, I loved the national lab. “Everything in the program was great and it was really informative. I learned a lot of good, new ways to present information to the students.”

Reach Thomas Gardiner at (706) 823-3339 or thomas.gardiner@augustachronicle.com.



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Technical Meetings:

September-2016

Presenter: Mr. Mark Schmitz, Savannah River Remediation the acting Chief Operations Officer for Savannah River Remediation.

Presentation: How SRR Became a World Leader in Dispositioning High Level Waste

SRR recently celebrated the Defense Waste Processing Facility 20 years of operation, 4000th High Level Waste container filled, and over 9.8 Million safe hours of work. Initially SRR was a limited liability company on a 6 year contract. That contract ends in 2017 and the company will be replaced by a new consortium for a 10 year contract. During their tenure, SRR fully closed 8 high level waste tanks leaving only 43 remaining in service. In 2018 the Salt Waste Processing Facility will open increasing the through put of the salt waste (~93% of the waste volume but only 50% of the radioactivity) by an 8 to 10 fold. These achievements were made possible by dedicated and hardworking employees and a lean program with continuous improvements in efficiency. New waste remediation techniques have increased the efficiency of Cesium removal from the waste by several orders of magnitude. Filtrate systems have replaced longer, less efficient chemical processes. Double stacking the waste drums in storage has nearly doubled capacity and prevented the need to build 1 or 2 more storage facilities. Larger salt final storage vaults decrease cost.



Mr. Mark Schmitz

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October-2016

Presenter: Mr. TJ Corder, a Shift Support Supervisor in Training for the Southern Company/Plant Vogtle Units 3 & 4

Presentation: China, Nuclear Power Plants, and Vogtle.

Mr. Corder spoke on the collaborative relationship between Vogtle and the Sanmen plants under construction in China. The two AP1000 units at Sanmen are nearing completion and Southern Company has taken the opportunity to work closely with their Chinese counterparts to share lessons learned in construction, improve and streamline operations, and exchange work practices. Vogtle Units 3 and 4 will be where the Sanmen units are in less than two years.

Mr. Corder was part of a continuously rotating group that spent a month on site in China. He shared with the group his experiences there including adjusting to cultural differences, observations made while at the Sanmen site, and the mutually beneficial nature of the exchange program. China, he enlightened us, is investing heavily in nuclear – building many plants of various design. However even with rapid growth to well over 100 operating plants by 2040, they will still only be ~10% nuclear. Mr. Corder also shared some personal experiences including touring China, comments on local cuisine, and some discussion on culture including some of the local arts he was able to observe while on the assignment.



TJ Corder

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November-2016

Presenter: Mr. Nick Irvin, PE is the Research and Development Manager for Advanced Energy Systems in Southern Company's Research and Technology Management department. Mr. Irvin presented his dealings the Southern Company's long term R&D involvement with future nuclear development.

Presentation: Southern Company R&D and Advanced Reactor Development

The new reactor design criteria Southern Company is considering are 5 criteria: fast or thermal neutron, liquid or solid fuel, breed or burn, coolant choice, and thorium or uranium cycle. The conclusion was to pursue a fast, liquid fuel, salt coolant reactor able to burn or breed with uranium or thorium. A low pressure high temperature salt will give the best efficiency.

Mr. Irvin's search led his group to TerraPower, Inc., a Seattle based startup in 2015. Southern Company Services and TerraPower were selected by the Department of Energy to develop an advanced molten salt reactor concept.

The schedule being pursued calls for pre-conceptual design in the 2030s, scale tests in the 2020s, and fundamental physics tests now. The primary problem is corrosion. If that can be solved, most other issues are expected to fall in line. The outlook is good!



Mr. Nick Irvin

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December-2016

The Annual Holiday Celebration was held at the North Augusta Community Center for a group of about 80. It featured five food & wine pairings provided by Terry Wick, and Andrew Benjamin of Wine World



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January-2017

Presenter: Professor Travis Knight Director of the Nuclear Engineering Program Department of Mechanical Engineering University of South Carolina

Dr. Knight provided an overview of the experimental facility that has been designed and constructed to investigate vacuum drying of spent nuclear fuel for placement in dry cask storage. The facility will be used to support a study demonstrating the drying of spent nuclear fuel using industry practice and provide the experimental data for development of drying models.



Dr. Knight



Dr. Klein

February-2017

Presenter: Dr. Andrew C. Klein, President of the American Nuclear Society.

"Advancing Advanced Reactors" Nuclear energy is facing some difficult challenges as well as numerous opportunities in the years ahead. This presentation discussed the importance of nuclear energy in meeting global climate change targets, the difficulties experienced by some currently operating plants and some ideas to preserve these important national assets. It also covered recent advances in advanced reactors, including small modular reactors. It also briefly include a discussion of a new project by the American Nuclear Society to identify the Nuclear Grand Challenges that would lead to significantly improving the delivery of nuclear science and technology solutions for the betterment of humankind.

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March-2017

Presenter: H.L. Dodds, Ph.D., P.E., IBM Professor of Engineering and Department Head, Emeritus, at the University of Tennessee.

"Energy Choices and Consequences" - With the world's population increasing from six billion currently to approximately nine billion by the year 2040, achieving a healthy lifestyle for all people on earth will depend, in part, on the availability of affordable energy, especially electricity. This work considers the various choices, or options, for producing electricity and the consequences associated with each option. The options are fossil, renewables, and nuclear. The consequences associated with these three options are addressed in five different areas: economics, environmental effects, public health and safety, sustainability, and politics. All options are needed, but some options may be better than others when compared in the five areas. This presentation is a brief summary of a short course entitled "Energy Choices and Consequences", which was created by the author several years ago and is continually updated. The short course is currently being taught to Honor Students at the University of Tennessee-Knoxville. Thus, a primary goal of this work is to provide a sound basis for making informed decisions about the path forward for electricity production.



Dr. Dobbs

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April-2017

Presenter: Dr. Nolan Hertel, Professor of Nuclear and Radiological Engineering in the George W. Woodruff School at the Georgia Institute of Technology.

Dr. Hertel performs research that integrates computational radiation transport with radiation measurements. He has made contributions in computational dosimetry, radiation detection, neutron spectroscopy, radiation dosimetry, radiological assessment, radiation shielding and radiation instrument modeling. He has a joint faculty appointment in the Environmental Sciences Division of Oak Ridge National Laboratory and is currently the Acting Director of the Center for Radiation Protection Knowledge. Dr. Hertel spoke on "The Center for Radiation Protection Knowledge: The Who, What, and Why". The establishment, mission, and capabilities of the mission of the Center for Radiation Protection Knowledge at the Oak Ridge National Laboratory will be presented. An example of some of its recent work was presented namely, an I-131 patient release and doses to the member of the public study. The Center for Radiation Protection Knowledge was established by a memorandum of understanding (MOU) between Oak Ridge National Laboratory and five federal agencies and serves as a common resource to assist the participating agencies in the development and application of radiation dosimetry and risk assessment methodologies based on the best available scientific information and to maintain and preserve U.S. expertise in radiation dosimetry.



Dr. Hertel

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May-2017

There were two Technical meetings in the month. First was the site tour of Plant Vogtle. A presentation was made by Mike McCracken, Communications Coordinator at Vogtle on the Construction update of Units 3 and 4. Many in attendance had questions about the recent announcement that Westinghouse had declared bankruptcy due to its nuclear construction in Georgia and South Carolina. At that time, meetings were being held with Westinghouse's parent company, Toshiba and the plant co-owners to discuss the future of the project. Karen Fili, Site Vice President of Vogtle 3 and 4 gave her perspective on working on the project and her history in engineering that got her to Vogtle site. She is responsible for the overall operational readiness of the two new units. Karen joined Southern Nuclear from Xcel Energy, where she had most recently served as site vice-president. A bus tour was made by the Public Relations staff of the outside of Units 1 and 2 and on the Units 3 and 4 construction site. The site appears to be around 50 to 60% complete. As usual everyone enjoyed the tour and the updates on construction.



The second meeting was an Up and Atom Breakfast in Aiken at Newberry Hall. This was a joint meeting with CNTA.

Presenter: Dr. Tom Burns, provided a startup status on the Salt Waste Processing Facility (SWPF) project. Dr. Burns is the Senior Vice President/Deputy Project Manager/Director of Engineering for Parsons' Salt Waste Processing Facility (SWPF).

Dr. Burns gave a presentation on the SWPF and its status.

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June-2017

Presenter: Lawrence Salomone, P.E.

The speaker for this evening was Mr. Lawrence Salomone. Mr. Salomone has had a long and varied career. He is an Aiken-based strategic and project management consultant that is a recognized national leader able to build and maintain successful industry and government partnerships. He has a history of making strategic vision a reality while becoming a recognized technical expert and noted Project Manager in the Energy and Environmental fields. He has been instrumental in industry-government partnership to develop new earthquake source models to evaluate seismic hazards including at the Savannah River Site. He has supported DOE, NRC, EPRI, and developed a plan for U.S. energy independence for Congressional leaders in 2008

He also has worked outside of engineering, developing a strategic plan for Major League Baseball (MLB) Commissioner Bud Selig and the MLB Executive Council to resolve the baseball strike in 1995. During Commissioner Selig's term, Major League Baseball's revenues have grown to \$6.8 Billion. The strategic plan is now available in the National Baseball Hall of Fame.

Mr. Lawrence spoke to this long and varied career, encouraging tonight's recipients to take their science, technology, and engineering education and apply the problem solving skills it will develop. He related how his passions for problem solving, interaction with people, and baseball had helped him achieve his remarkable career. He highlighted the need for fresh eyes to see problems from new angles, seize opportunity, and always be thinking ahead to the next issue to overcome.

The Richard (Dick) Benjamin Scholarships for 2017 were awarded at this meeting.

This was the final technical meeting of the 2016-17 year. Enjoy the summer.



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Richard Benjamin 2017 Scholarship Winners:

During the June 8, 2017 meeting of the Savannah River Section of the American Nuclear Society (ANS) four Benjamin Memorial Scholarship awards were awarded to Central Savannah River Area student to help defray college costs for the 2017-2018 academic year of study. The awards are provided in the memory of its long-time member, Dr. Richard (Dick) Benjamin (1925-2013), to students expressing academic and career interests in science, technology, engineering, and mathematics (STEM) fields, and particularly those wishing to major in a field associated with nuclear science and technology.

For the first time in the four-year history of the Scholarship, two groups of candidates were considered, technical college and university/college. This year's \$2,000 Scholarship winners are Cassandra Jennings of Aiken Technical College, Jacob Totaro of Harlem High School, Justin Tran of Aquinas High School, and Kyle Xiao of Lakeside High School. The near-term plans of the four Scholarship winners are in keeping with the STEM core areas intended for support through the Benjamin Memorial awards, with Ms. Jennings completing study in the Radiation Protection Technology at Aiken Technical College. Mr. Totaro is beginning study in Environmental Engineering at the University of Southern California, Mr. Tran is beginning his Computer Engineering studies at Georgia Tech, and Mr. Xiao beginning study in Engineering also at Georgia Tech. Scholarship chair Kevin O'Kula said, "While this is the first year that ANS SR has recognized two categories of STEM students, those in the technical college area and those attending four-year colleges and universities, it marks our fourth year of awarding students in Dr. Benjamin's memory."

The Scholarship winners and their parents were recognized at this meeting held at Newberry Hall in Aiken. Tracy Stover, Secretary of the Savannah River Section, represented the Section officers and distributed the Scholarship certificates and checks to the students, parents and family members for the students not able to attend in person.

Following distribution of the Scholarship awards, Lawrence Salomone, PE, an Aiken-based strategic and project management consultant, gave his insights from a long and varied career in engineering in a presentation entitled, "The Role of Engineers in Society." Mr. Salomone encouraged Benjamin Scholarship recipients to take their science, technology, and engineering education training and apply their problem solving skills to key problem areas and issues not only in their individual fields but also in the broader business and technical world. He used two examples of personal involvement to develop unique solutions to problem areas with long-standing difference among various diverse stakeholders, one for Major League Baseball and the other for the Electric Power Research Institute, U.S. Department of Energy and the Nuclear Regulatory Commission. He highlighted the need for fresh eyes to see problems from new angles, seize opportunities, and always be thinking ahead to the next issue to overcome.

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In addition to the Scholarship awards, Benjamin Commendation Awards will be provided later this summer to the following students in the technical college category: Tracy Burke attending Aiken Technical College in Radiation Protection Technology, Mackenzie Martin (Midland Valley H.S.) beginning study at Aiken Technical College. For the university/college category, Commendation Awards will recognize: Sara Bowles (Westside H.S.) attending Georgia Tech, Justin McCorkle (Greenbrier H.S.) attending Georgia Southern University, and Emily Miller (Westminster Schools of Augusta) attending Georgia Tech.

The Scholarship is named for Dick Benjamin, who was a mentor to many nuclear science and technology professionals in the Aiken-Augusta area for over four decades. He received his B.A. in Engineering from Lamar University, M.S. in Nuclear Engineering from Southern Methodist University, and earned his PhD in Nuclear Physics from the University of Texas in 1965. After a three-year post-doctoral study at the Swiss Federal Institute of Technology, Dick came to the Augusta area in 1968 with the acceptance of employment at Savannah River Laboratory (now Savannah River National Laboratory). He worked in many technical areas during his Savannah River Site career, most notably being the Reactor Physics, Atmospheric Technologies, and Advanced Planning Groups, and the Accelerator Production of Tritium Project. During his long and illustrious ANS career, he was active with the Fuel Cycle and Waste Management and Environmental Sciences Divisions, and was a chair for each division. In June 1992, Dick represented ANS at the first United Nations Framework Convention on Climate Change held in Rio de Janeiro. Dr. Benjamin was co-director of the local Tasters Guild, a wine and food appreciation society. He was also an avid supporter of the Augusta Opera and the Augusta Choral Society.

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2017-2018 Benjamin Scholarship Award Winners, parents and families (left to right): Kyle Xiao (Lakeside High School), and his father, Steve Xiao; Lynh Nguyen receiving the award for her son, Justin Tran, with Justin's father Michael Tran; Cassandra Jennings and her parents, Jeff and Melinda Jennings; and Jim Park receiving the award for his grandson, Jacob Totaro, with Jacob's sister, Regan Totaro. Not present, Justin Tran and Jacob Totaro. (ANS SR photo by Chuan Wu, past chair)

Local Section Awards:

The Savannah River Section was awarded the 2016 Best Large Section award this year.

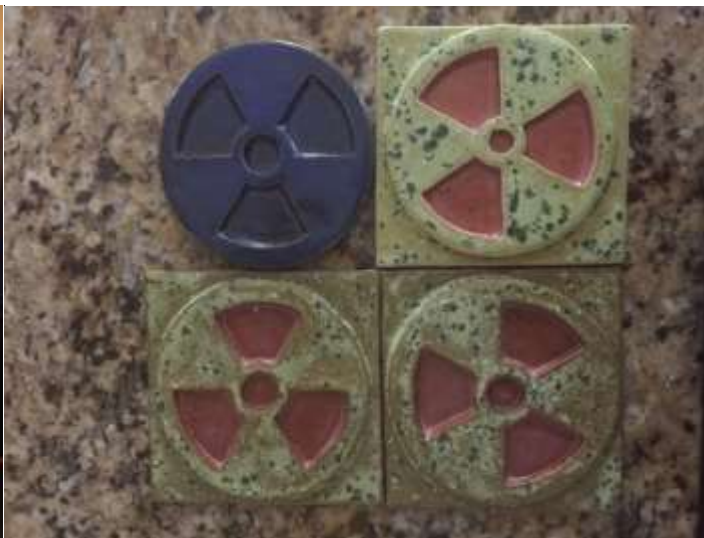
Tran, Tinh accepted the award for the section at the ANS Winter Conference.



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ANS Trivia Nights

Over the past year, ANS-SR Nuclear Trivia organizers, Amanda Bryson, Mary Mewborn, Brian Lenz, and Dan Hanson put on several events at the Aiken Brewing Company 2nd floor. The group experienced some change when Dan left the area for a new job opportunity, but continue to keep the trivia fun going. Most recently, they joined forces with LEAP (Leaders Emerging among Professionals) for nuclear trivia at the Carolina Ale House in Augusta. About 50 people were in attendance. ANS-SR trivia regulars on the “Neutrinos” team (Paul and Elaine Dickson, and Jay Bilyeu) tied for first place. The event was co-organized by LEAP members: Hope Hartman, Alex Hartsell, and Kallie Metzger. Hope, Brian, Mary, and Amanda wrote the questions and developed the slideshow, and judged the answers to 10 regular questions, one lightning round, and one “Final Jeopardy” style question that kept the standings a mystery until the very last minute. Door prizes were awarded while the final scores were tabulated. The prizes were a mix of LEAP’s donation of Carolina Ale House gift cards and SRNS-branded merchandise. ANS-SR provided radiation-symbol ceramic coasters handcrafted by Mary. Brian and Jay worked together to ensure the slideshow was visible on one of the restaurant’s television screens and that the speaker and microphone were available for announcements, all of which was key to success in the busy environment of the Ale House.



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American Nuclear Society – Savannah River Section Local Section Application

Directory Information:

Last Name: ____ First Name: ____ M.I.: ____ Suffix: ____

Mailing Address: ____

City: ____ State: ____ Zip: ____

Email Address: ____ (used only for newsletter distribution, notification of meetings, and requests for local activity support)

Phone: ____

Occupation: ____ Employer: ____

Location: ____

Job Title: ____

Education Completed:	Degree	Year Graduated	Course of Study
<input type="checkbox"/>	BS	____	____
<input type="checkbox"/>	MS	____	____
<input type="checkbox"/>	PhD	____	____

Section Information:

Are you a National ANS Member? Yes ☐ No ☐

If Yes: To what do you belong?

- | | | |
|--|---|---|
| <input type="checkbox"/> Accelerator Applications | <input type="checkbox"/> Biology & Medicine | <input type="checkbox"/> DD&R |
| <input type="checkbox"/> Education & Training | <input type="checkbox"/> Decommissioning & Environmental Sciences | |
| <input type="checkbox"/> Fuel Cycle & Waste Management | | |
| <input type="checkbox"/> Fusion Energy | <input type="checkbox"/> Human Factors | <input type="checkbox"/> Isotopes & Radiation |
| <input type="checkbox"/> Material Science & Tech | <input type="checkbox"/> Mathematics & Computation | <input type="checkbox"/> Criticality Safety |

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- | | | |
|--|--|---|
| <input type="checkbox"/> Nuclear Installation Safety | <input type="checkbox"/> Operations & Power | <input type="checkbox"/> Radiation Protection & Shielding |
| <input type="checkbox"/> Reactor Physics | <input type="checkbox"/> Robotics & Remote Systems | <input type="checkbox"/> Thermal Hydraulics |
| <input type="checkbox"/> Aerospace | <input type="checkbox"/> Young Members | <input type="checkbox"/> Comp Medical Physics |
| <input type="checkbox"/> Nuclear Nonproliferation | | |

Are you a National Committee Member? Yes ☐ No ☐

Are you interested in working on a local committee? Yes ☐ No ☐

(e.g.: Executive Committee, Membership Committee, Scholarship Committee, Topical Committee, Outreach Committee...)

Interests: ____

Comments: ____

Membership is free, and you do not have to be an ANS National member

Please forward completed application to ans.savannahriver@gmail.com