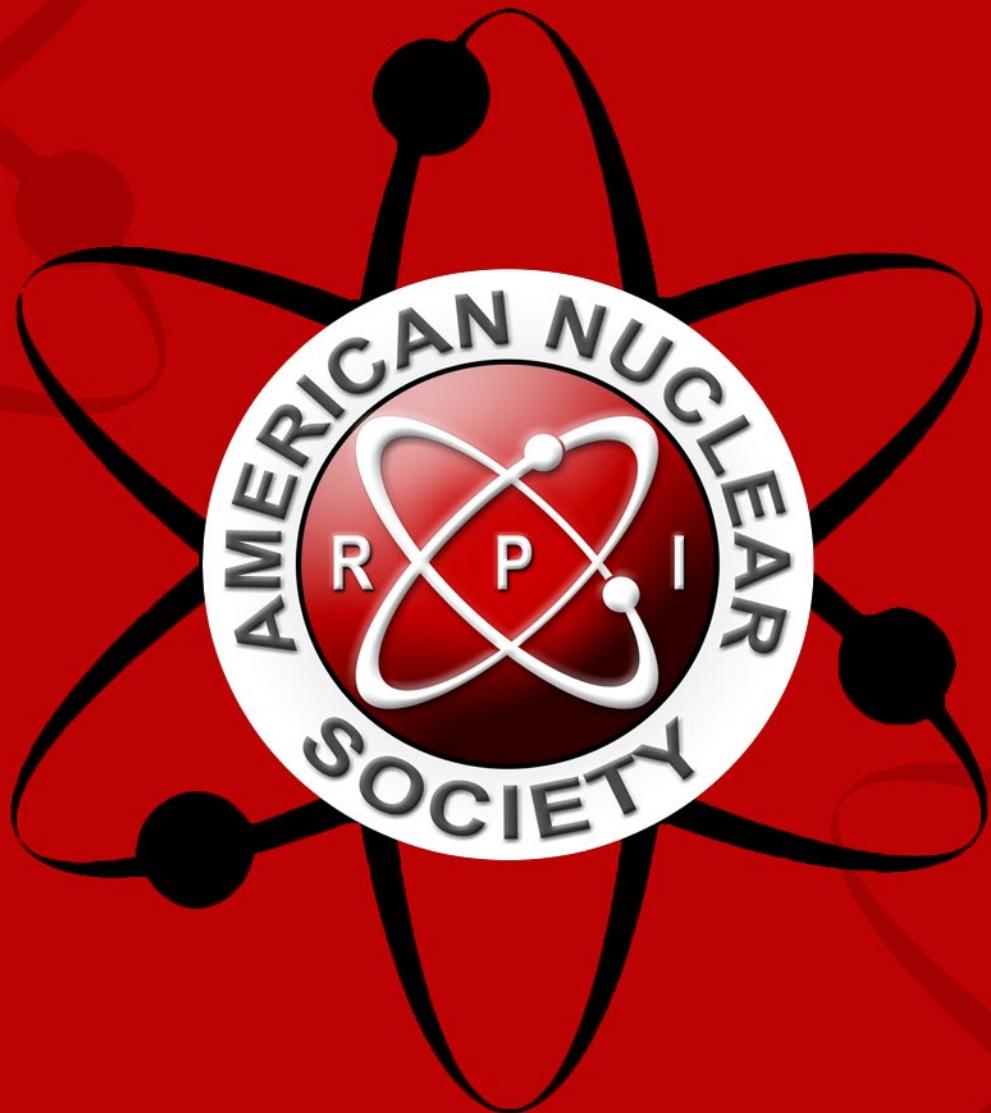


2010-2011

Glasstone Report



2010-2011 Board of Governors

Jessica Hunter '11 President

Lindsay O'Brien '11, Vice President

Matthew Riblett '12, Secretary

Michelle Okoniewski '11, Treasurer

Faculty Advisor: Dr. Peter Caracappa



Table of Contents

Introduction	3
Administrative Updates.....	4
General Body Meetings.....	7
Professional Relations Committee	9
Institute Relations Committee.....	11
Outreach Committee	15
Social Committee	16
Conference Committee.....	20
Section Trip	21
Section Accomplishments.....	22
Conferences.....	25
Conclusion	26



Introduction

The Rensselaer Polytechnic Institute Section of the American Nuclear Society, founded in 1964, has become a fixture in the RPI community, growing in numbers, activities, and influence. The objectives of the Section are to 1) continually support the nuclear community through increased awareness by public education, 2) to support the Section by providing opportunities of employment, research, and furthering knowledge in the nuclear field, 3) to increase communication between the Section, faculty, and department, and 4) create an atmosphere of a true community through networking and social activity. By working closely with the Mechanical, Aerospace, and Nuclear Engineering (MANE) Department, the RPI community, industry, the local community, and the national American Nuclear Society, the Section has been able to accomplish these objectives for the 2010 to 2011 academic year.

This year has marked a new dedication to Section development. Membership drop off due to a shrinking incoming class size has encouraged the Section to focus on retaining its members through an increase of social activity, a major effort towards strengthening the Section and the bonds between upper and lower classmen. This was done while maintaining the growth of events directed at providing the Section with employment and research opportunities, and expanding students' knowledge of the field while educating the public. The recent events in Japan have given the members of the Section an opportunity to educate their friends, families, and fellow students about the field, promoting safe nuclear energy through a supply of accurate information.

The goals of the Section continue to be achieved through the use of four standing committees: Professional Relations, Institute Relations, Outreach, and Social. The recent eligibility of RPI to host another national ANS student conference has caused the creation of a new committee dedicated to begin preparations for a proposal: the Conference committee. These five committees, made up of dedicated Section members, have achieved the goals of the Section through their events and programs.



Administrative Updates

Recruitment and Membership

After 2007, the number of incoming freshmen in the nuclear program at RPI has annually decreased. Despite the corresponding decrease in active members, the Section has maintained and even grown its number of events from previous years. For the 2010-2011 academic year, the Section had a total of 32 active members, down from last year's 49 active members. The number of unique individuals attending meetings, though, was 79, just down 1 from 80 unique individuals last year. The Section has 2 active graduate students, with 5 unique graduate students attending meetings.

This decrease in active members has sparked the Section into increasing social activities. The active members are mostly comprised of upper classmen for several reasons. Coursework specification in the field occurs in junior year, and so students want to become more involved in their field of study as well as receive tutoring in their major-specific classes. As the date of graduation looms closer, the pursuit of internships and employment increases the membership as well. Upperclassmen join for these benefits, but underclassmen do not have such motivations. They key benefit to joining the Section as a freshman is the community and support that it provides. Underclassmen can get advice, friendship, and guidance on future academic choices and connections with future alumni. The few underclassmen who are very active expressed their regret at not joining earlier, as they realize what they have missed.

Increasing the number of social events promotes the level of community within the Section, and with this the Section hopes to attract new freshmen and sophomores in the coming years. Recruitment and retainment of underclassmen is also supported by the mentoring program, in which underclassmen are paired with upperclassmen. Younger members of the Section are recruited through short presentations by upperclassmen in the class Introduction to Nuclear Engineering, as well as class announcements of meetings by professors and fellow students.

Section Bylaws and Rules Update

The latest changes to the Section bylaws and rules occurred in Spring 2010, in which the Section voted to reword the requirements to active membership status. At the same time, it was voted to create the Conference committee. Both changes were voted in to be sent to the Society's Bylaws and Rules Committee.



Board of Governors

The 2010-2011 Board of Governors met every Monday at 8:30 pm to handle the activities and management of the Section. For the last two years each officer has joined a committee in order to increase the communications between the committees and the officers. This practice also encouraged the Section to become more involved in the committees. It was observed and discussed at the very first meeting of the Board of Governors that this method was not enough. Committee heads were only in communication with the Board through emails or committee meetings, whose frequency was determined by the committee head. This was observed to be ineffective in helping the committees to complete their objectives in the previous years.

It was decided that in order to accomplish the lengthy list of activity goals set out in the Plan of Action presented by the Board of Governors, the appointed committee heads would join in on the first half of the weekly executive meetings. This, in addition to each officer's participation in a committee, had wonderful success. Every week the committee heads would discuss their progress with the officers, trading ideas on how to do things, who to talk to, and what would work best. The officers would use the time to inform committee heads of new opportunities, remind them of short term goals, and to urge the continual planning of long term goals. This setup worked well for both parties; the committee heads were held accountable every week and as such had weekly meetings with their committees. At the same time, the officers also had a bigger audience to test ideas for new events.

The 2010-2011 Board of Governors included President Jessica Hunter '11, Vice President Lindsay O'Brien '11, Secretary Matthew Riblett '12, and Treasurer Michelle Okoniewski '11. The recently elected Board of Governors for the 2011-2012 academic year includes President Matthew Riblett '12, Vice President Briana Bollinger '12, Secretary Melissa Urquhart '13 and Treasurer Ryan Norval '13.

Member of the Month

In continuing RPI ANS tradition, the Board of Governors, after conferring with the committee heads, selects one student a month to be awarded a trophy and the esteemed title of Member of the Month. This title is awarded to a member of the general body, a committee member, or committee head that has done outstanding work for the Section in the month awarded. The benefits of winning this highly desired title are gifts that include a \$10 gift card to Price Chopper, an Entergy gift set, including an Entergy laundry bag, flash drive, pen, and pencil, and custody of the trophy until the next member is awarded.



Steve Alvarado '13 and Melissa Urquhart '13 receive their gifts as Members of the Month

This year's Members of the Month include Joe Baca '13 for his outstanding work for the Conference Committee (October), Ryan Norval '12 for his work in the Institute Relations Committee (November), Melissa Urquhart '13 and Steven Alvarado '13 for their work in contacting companies in the Professional Relations Committee (December/January), Sean Knapp '12 for his volunteering in events for the Institute Relations Committee (February), and Laura Goulet '11 and Allyce Bolger '11 for their amazing efforts in the Social Committee (March).



General Body Meetings

One of the main goals set out by the 2010-2011 Board of Governors was to increase the knowledge of the Section during general body meetings. This included knowledge of the nuclear field, what research is conducted at RPI, opportunities for internships and employment, as well as opportunities to participate in other types of programs. Described below are some of the events that helped in accomplishing those goals. The events here do not include those listed elsewhere in the report.

Graduate Student Presentation: “DNS-RNS Coupled Simulations of Fission Gas Release”

On October 6th Dillon Shaver '08, a graduate student in thermal hydraulics under Professor Michael Podowsky, presented his latest research to the Section. Although it was an advanced concept for some younger members of the Section, Dillon was able to present his research in a clear and concise manner, demonstrating his skill in presenting. It was these skills that would land him first place in his division the following spring at the 2011 Student Conference.

Undergraduate Student Presentations: “Summer 2010 at UNLV”

During a general body meeting on Oct 20th, several students who had attended a summer research program at the University of Las Vegas presented their research to the Section. Adam Weltz '11, Brian Jennings '11, and Sean Piela '11 were among the students presenting. The program was fully funded for the students attending, making the program doubly appealing to the Section. Several members expressed interest in applying for the following summer.

SL-1 Documentary

On the night of October 20th, after the general body meeting, a documentary was shown on one of the most well-known nuclear accidents, SL-1. This was shown after members held discussions about nuclear accidents over dinner at the NENY Membership Drive. The SL-1 accident was not only a gruesome accident, but a history lesson on the improvements of reactor designs as well as safety analysis.

Faculty Presentation: “Nuclear: Past, Present, and Future”

After hearing about very specific nuclear subjects in the fall semester, it was expressed by the Section that an overall presentation on the history and current status of the nuclear field was desired, especially as the sophomore class began their first nuclear-specific course. On March 24th, Professor Sastry Sreepada, one of the Section's favorite professors, volunteered to



come in and present to the Section. His presentation, which captivated the Section, focused on nuclear power from the very beginning to the future concepts. He covered not only commercial power, but also such areas as NASA's use of nuclear reactors. Professor Sreepada gave a full account of the status of nuclear power today, in addition to where it is headed. He provided his opinions on what was holding the industry back, as well as where the new research in the field should be directed. No one was quite sure how long the presentation lasted, and afterwards, no one cared. It was suggested to ask Professor Sreepada to present at least once to the Section every semester for the rest of his career.

Undergraduate Student Presentation: "Nuclear Energy Crisis"

After seeing a presentation on nuclear energy, and the state of the energy profile of the world and the US, Nuclear Engineering Student Steven Holdcroft '11 decided to present on the same topic to the general body on April 7th. With the permission and approval of the original presenter, Steven modified the presentation for time constraints as well as for his own spin on the presentation. The presentation was received well, and many of the students requested the presentation.



Professional Relations Committee

The role of the Professional Relations committee is to provide the Section with opportunities for internships, employment, and participation in other nuclear programs. This year the committee, headed by Selena Willoughby '11, achieved their goals through multiple information sessions, organization of employer information, and advice for career seekers. They were also thrown a curveball after the tragedy in Japan, and the events that followed.

Employer Information Organization

One difficulty the Section sees in the nuclear engineering curriculum at RPI is the lack of exposure to what companies are involved in industry. Only a hand-full of students attend the career fair at the ANS Student conference, and only a select few nuclear companies attend the career fair at RPI. To remedy this, RPI's student Section created an informational drawer in the MANE Department's Student Services office that contains fact-sheets and promotional information for a variety of companies and graduate schools that want nuclear engineers. It is updated by the Section with any extra information that students pick up at career fairs or from information sessions.

Do's and Don'ts of Career Fairs

RPI's ANS student Section membership is heavily dominated by undergraduate students and many are looking for jobs or internships. Upperclassmen had an informal roundtable session to discuss what to and to not do when attending a career fair. Attendees asked questions about what to wear, strategies for who to talk to, and what to bring while upperclassmen answered with personal experiences and observations.

Westinghouse Interviews

After the fall career fair, Westinghouse held on-campus interviews that were organized through RPI's student Section. Interviews ran from 9am to 4pm. Fourteen graduate and undergraduate nuclear engineers were interviewed for both internships and full-time positions. Five students were then invited to Westinghouse's second round interviews on site in Pittsburgh, PA.

Entergy Information Session

On March 10th, Entergy representatives from both Louisiana and New York came to speak to RPI's student Section. They spoke about Entergy from both a corporate perspective and also from a plant perspective. Activities were held with students during the information session, including a raffle for a video camera.



Constellation Information Session

On November 17th, representatives from Constellation spoke with RPI's student Section about the company and the plants they operate. The next day they held onsite interviews with a hand full of students for internships and full time positions.

Knolls Atomic Power Laboratory Information Session

On Oct 6th, one of the major local employers of nuclear engineering undergraduates, KAPL, made the 30-40 minute trip to RPI to host an information session. Two representatives from their Advanced Reactor Program came to speak about what KAPL had to offer, discussing both Navy laboratories, KAPL and Bettis. Afterwards, both representatives looked at resumes and spoke with students about internships and employment.

Donation of Chart of Nuclides

Before the retirement of a faculty member with connections to KAPL, nuclear engineering students had the privilege of receiving the wall Chart of the Nuclides (produced by KAPL) after completing some of their initial nuclear courses at RPI. Since then no student has since received a chart. This year, connections between the Section and KAPL were re-established, resulting in not only an information session, but a donation of both wall charts and the accompanying booklets to the entire Section. Members were thrilled to receive the latest edition of the Chart of Nuclides, especially because they were autographed by the authors and designers of the chart!

Fukushima Public Forum

On April 5th, RPI's ANS student Section hosted a public forum discussing the events that occurred at Fukushima Daiichi in March. It was open to the general RPI community. Three faculty members (Professor Sastry Sreepada, Professor Peter F. Caracappa, and Professor Wei Ji) spoke about the timeline of events, radiation implications, and the advancements in reactor technology since the 1970s to a crowd of 80 individuals. After the presentations, a brief Q&A session was held. Members of the audience included nuclear engineering students, students from different majors around the campus, as well as faculty members from different departments who were interested in finding accurate sources of information. This public forum was in addition to RPI ANS members' statements given to the school newspaper, The Polytechnic, as well as many interviews conducted with RPI nuclear faculty. RPI ANS made sure to keep the Section up to date by providing links to accurate sources of information about the event, and will continue to do so.

Fukushima: What Happened?
A COMMUNITY-WIDE PUBLIC FORUM EVENT
Hosted By: RPI ANS, GRF, and the MANE Student Advisory Council

- WHAT HAPPENED IN JAPAN?
- WHAT DOES IT ALL MEAN?
- DISCUSS EVENTS WITH THE EXPERTS
- GET THE FACTS - NOT THE FICTION
- FOOD AND DRINKS TO FOLLOW

Mother's in the Union
APRIL 5th from 6:00 - 7:00 PM



Advertisement for Fukushima Public Forum



Institute Relations Committee

The role of the Institute Relations committee is to handle all events on campus, working with the MANE department, the School of Engineering, and other student groups on campus. The committee, headed by Ryan Norval '13 and Mike Pinkert '13, not only works with other groups but hosts its own ANS events on campus, increasing the visibility and presence of RPI ANS on campus. In addition, the committee is charged with maintaining all of the materials needed for these tasks.

Maintenance of Materials

One of the first tasks the Institute Relations committee performed this year was making improvements to the poster boards that the Section displays at on-campus recruiting events as well as accepted student events. Ryan Norval '13 and Mike Pinkert '13 created new boards that improved both the physical appearance of the board and the content. The new boards feature images of all RPI's nuclear facilities and sample research that occurs at each. Some points from the old boards that were carried over include reasons to be a nuclear engineer, reasons to join ANS, and various job opportunities in nuclear engineering. These new boards were utilized at many of the on campus events that the Section participated in.



Lindsay O'Brien '11 at an Open House event with one of the boards

RPI Activities Fair

The first event to use those materials was the activities fair, a campus-wide event aimed at underclassmen at which all organizations within RPI can hold a booth. With the new updated



board and a bowl full of candy, RPI ANS signed up at least 13 people on the email list. In attendance to speak to underclassmen about RPI was the entire Board of Governors as well as a group of at least 3 from the general body of the Section.

RPI ANS Display Boards

On campus RPI ANS owns a display board in the Jonsson Engineering Center which over the years has fallen badly out of date. So out of date, in fact, that the Section was unaware that it owned the board until it was mentioned by the MANE department. This board typically displayed information about job opportunities or graduate opportunities in Nuclear Engineering. Ryan Norval '13, Mike Pinkert '13, and Laura Goulet '11 were in charge of updating the board. Much of the information on the board was years out of date. This information was removed, and new information from the company or university was requested to replace it. A Section of the board was also dedicated to display undergraduate and graduate research; currently on display are a poster of a pyro-electric fusion experiment and a poster on multiphase flow. Photos taken of Section members at conferences along with announcements of awards won at the 2011 Student Conference were added later in the year. The Section will continue to use these boards as a means of increasing visibility, as well as a way to motivate students to do research that may be featured on the board.

Program in Review Document

The Section maintains a Program in Review Document (PIRD), a summary of all courses offered by the MANE department, research performed the faculty, and the research of graduate students. In past years this document was kept as a hard copy, but after the revision of the document it will be posted on the Section website at the end of the academic term.

Exploring Engineering Day

On February 19th the RPI School of Engineering hosted Exploring Engineering Day (EED). EED is an event that brings about 300 4-8th graders to campus to engage them in engineering activities. Section members Ryan Norval '13, Jessica Hunter '11, Michelle Okoniewski '11, Lindsey Obrien '11, Sean Knapp '12, and Mike Pinkert '13 staffed the event. During the day six groups of about 25 students each, spent 45 minutes in the workshop. Students were shown a mousetrap chain reaction, an animated video on a fission chain reaction of uranium atoms, and an informational slide show giving an overview of atomic structures. Following a discussion of nuclear structure, students then made models of lithium isotopes out Styrofoam balls, which were painted to distinguish between protons and neutrons. Section volunteers answered questions from the students as they constructed their models. The students seemed most interested in the chain reaction videos. This was the first time RPI ANS has participated in EED and the Section plans to participate in the exciting day again in the future.



Sean Knapp '12 working with students creating Lithium atoms at Exploring Engineering Day

Bernard Harris Summer Science Exxon Mobile Camp Reunion

Also on February 19th, RPI hosted a reunion of the 2010 Summer Science Camp that is held on campus for 5th, 6th, and 7th graders. RPI ANS volunteered to host an activity for the children. A very basic presentation on atoms, isotopes, radioactivity, and time, distance, and shielding was presented. Presenters included Kevin Higgins '11, Jessica Hunter '11, and Lindsay O'Brien '11. Using different sources and a Geiger-Mueller counter, students learned the difference between types of radiation, and how to protect themselves. There were 2 sessions of about 15 students each. As each student learned how to use the counter, ANS Section members answered any question that the kids had. During that session the ANS members were able to clear up many of the misconceptions about radiation, nuclear waste, and glowing in the dark.



Kevin Higgins '11 supervising students using Geiger counters at the Summer Science Camp Reunion



Accepted Students Day

On April 9th RPI held its annual Accepted Students Day. Ryan Norval '13, Laura Goulet '11, Allyce Bolger '11 and Michelle Okoniewski '11 staffed a four hour event where potential RPI students had the opportunity to ask questions about nuclear engineering and student life in general. Approximately one hundred students had discussions with Section members. The events of Fukushima were also discussed by members of the Section, making the event another opportunity to educate the public.

Design Your Future Day

April 16th marked Design Your Future Day (DYFD), a campus event hosted by RPI SWE and the School of Engineering that the Section participated in. The event was designed to encourage high school girls to get involved Science, Technology, Engineering, and Math (STEM) fields. Ryan Norval '13 and Melissa Urquhart '13 staffed the event. About 20 high school girls discussed a potential future in nuclear engineering with one of the two Section members. Questions about careers, graduate school, and student life were also answered.

Nuclear Awareness Day

Nuclear Awareness Day is a tradition for RPI ANS. The event is designated by posters on campus and a booth set up in the Darrin Communications Center, a large hallway in which most of the RPI student population walks by. Information about nuclear energy and safety is provided, including posters and handouts. Stickers and other doodads are provided for interested information seekers. This event will be hosted in the coming weeks, before the end of the academic year.



Outreach Committee

The role of the Outreach committee is to provide opportunities to the Section to educate the general public about the nuclear field. This semester the committee, headed by Kevin Higgins '11, has collaborated with many of the other committees on events listed previously, including the Fukushima Public Forum, and the Bernard Harris Summer Science Camp.

Nuclear Science Merit Badge

For the fifth year in a row, the RPI ANS Section has hosted the Boy Scout Nuclear Science Merit Badge. In preparation for the event more members of the committee became certified counselors, and the Outreach committee was trained and qualified to run the event. One of the key events for the RPI ANS Section, the merit badge program has continually grown over the last few years. This year saw a new expansion of the program with three separate days, one at the end of the fall semester, on December 4th, and two more days near the end of the spring semester, April 9th and 30th. It would have been 4 days, in fact, but the linear accelerator was very busy conducting cross section measurements during the fall semester. Over 50 scouts received their merit badges, coming from places as far away as Massachusetts and Vermont!

Activities during the program involved multiple presentations including nuclear definitions, famous people, radiation safety, radon, nuclear power generation, nuclear careers, and even a special presentation on the events at Fukushima by Selena Willoughby '11. Breaking up the presentations were activities, including a tour of the linear accelerator by graduate students Jason Thompson '06 and Rian Bahran '06, the creation of electroscopes, the use of sources and Geiger-Mueller counters for time, distance, and shielding demonstrations, the use of Styrofoam balls to construct atoms, and drawings of chain reactions. The merit badge is an all-day event, running from 10am to 4pm. At least eight Section members ran every event, with about fifteen unique Section members. In future years the Section hopes to expand the program, and to begin a nuclear science Girl Scout patch.



Volunteers from the Section help out at the Nuclear Science Merit Badge program



Social Committee

The role of the Social committee is to increase the interactions between students in the Section as well as encourage the development of faculty-student development. This year the Social committee, led by Allyce Bolger '11 and Laura Goulet '11, expanded the number of events by an unprecedented amount. Students bonded through intramural sports, community service, and even matching t-shirts. Leaving no stone unturned, the ladies organized the first student-faculty mixer seen since 2008.

Intramural Dodgeball

The dodgeball team (named Duderstadt's Army) consisted of Zachary Hoagland '11, Lindsay O'Brien '11, Jessica Hunter '11, Allyce Bolger '11, Brian Waite '12, Joe Mancuso '12, Joey Spizuco '12, and Jerry Meade '11. The team was relatively successful with a 3-3 record and made it to playoffs but unfortunately lost in the first round. The group had fun playing with each other, with everyone being involved and creating a 'pretty decent team.'

Intramural Volleyball

The volleyball team (the second infantry of Duderstadt's Army) consisted of Dillon Shaver '08, Brian Waite '12, Laura Goulet '11, Tim Jackson '11, Dan Baran '11, Selena Willoughby '11, Lindsay O'Brien '11, Zeke Blaine '08, and Dave Walsh '11. The team had a wonderful motto provided by Dave—"It's all in the abs!" With this motto, our volleyball had a very defeated season, going 0-4. Despite the loss on the score board, the team bonded and had a lot of good times together.

Intramural Walleyball

Team Gone Fission of Dillon Shaver '08, Laura Goulet '11, Michael McKenna '11, Lindsay O'Brien '11, Jessica Hunter '11, David Walsh '11, and Zachary Hoagland '11. The team went 3-3, losing some heartbreaking games in the final volleys. Similar to volleyball, Dave provided another slogan for us- "Mint Berry Crunch!" The team had a wonderful time and focused on having fun and making new friends with other teams.

Intramural Softball

Team No CANDU came back for another year of softball. Players include Zachary Hoagland '11, Brian Waite '12, Melissa Urquhart '13, Adam Weltz '11, Allyce Bolger '11, Laura Goulet '11, Kevin Higgins '11, Steven Holdcroft '11, Benjamin Lick '11, Michael McKenna '11, Joseph Spizuco '12 and Steve Logan '12. The team only managed to scrape out one win so far out of five, but has had a memorable season. Key plays include Allyce catching an amazing line



drive straight at her head while playing third base and a sliding catch in centerfield by Ben worthy of ESPN Plays of The Nights.

Intramural Indoor Soccer

The lineup for the third infantry of Duderstadt's Army included Allyce Bolger '11, Melissa Urquhart '13, Brian Waite '12, Kevin Higgins '11, Zachary Hoagland '11, Ryan Norval '13, Lindsay O'Brien '11, Daniel Baran '11, Mohammad Al-Quraan '14, and Enow Ebott '14. During regular season the team played sensationaly with a 4-2 record. They faced off against one of our more difficult opponents in the first round of playoffs and unfortunately suffered a defeat of 21 to 15. Much improvement was seen in their goal keeping skills and overall the team enjoyed competitive but exciting that that team dynamic provided.

Apple Picking

On October 3rd, a brave group of nukes made their way to Indian Ladder Farms to pick apples. Seven members of the Section participated, with Kevin Higgins '11 bringing his pooch Molly. After a stop at the petting zoo, they made their way to the apple orchard where their first stop was at a bin with already picked apples, definitely a challenge to their apple picking skills. From there they ventured into the great unknown and picked many, many apples. Once thoroughly cold and bags packed full, the group made their way to the store where fresh doughnuts and hot cider were purchased and consumed and then ventured home.

Student-Faculty Mixer

The next large event that the Social Committee held was a faculty-student mixer on November 3rd. Professors who made appearances were Professor Caracappa, Professor Malaviya, Professor Liu, Professor Xu, and Professor Zhou, and Professor Ji. The student participants varied throughout the night. Provided at the mixer were the usual pizza and pop, as well as a cheese and cracker tray and a variety of vegetables and snacks. The mixer was considered a success due to the fact that students got a relaxed situation to talk and learn about the research and life stories of our nuclear engineering faculty.

Bowling

November 17th was the date of another 'interesting' social event- Dollar Bowling at Uncle Sam's Lanes. Nine Section members attended the event. After separating the group and making embarrassing nicknames, bowling occurred as one would expect. Competition heated up between the two groups, as did discussion of proper form and who handled the balls the best.

Chili Cook-Off

As the calendar pages turned closer to Halloween, it was originally planned to have a pumpkin carving contest, but due to a change in interest, and a chance to make a tradition, the



next event was changed to a chili cook-off on December 1st. We had four fearless contestants throw their cooking skills to the mercy of the ANS student body (Tim Jackson '11, Michelle Okoniewski '11, Jessica Hunter '11, and Zachary Hoagland '11). After much deliberation and saltines, the winner was announced to be Jessica Hunter '11. Special ingredient? "Ground sausage!"



Michelle Okoniewski '11 with her second place certificate in the Chili Cook-Off event

Potluck Dinner

In order to make ANS feel even more like home, a potluck dinner was organized for the general body meeting on March 24th. Food brought included homemade burritos, pulled pork sandwiches, lasagna, macaroni cheese, meatballs and sauce, bruschetta, cheesecake, cupcakes and cookies. The potluck was a huge success, with many expressing interest in doing it again.

Laser Tag

A very relaxing trip was taken by nine of the Section members to Zero Gravity, a local laser tag arena on March 31st. This was a first time event for some of our members, and a refresher course for many others. Michelle Okoniewski '11 took the lead, dominating in almost every match, only seeing true competition from other patrons of the arena.

Earth Day Volunteering

In an effort to make the parks around RPI nicer for the community, four dedicated members of RPI's ANS society took some of their time to clean up a local park on April 27th. In the air of togetherness, the team "competed" against other groups to clean their allotted areas



faster. At the end of the volunteering shift, it was decided that they were in fact "Team Awesome" and that the team loved the community more than any other team in attendance.

Relay for Life

RPI ANS participated in the campus's Relay for Life again this year on April 29th. The team this year was 17 members strong, and raised over \$1,000 dollars! The top three fundraisers were Julia Sanda '11, with \$275.00, Laura Goulet '11 with \$210.00, and Daniel Spatafore '11 at \$135.00. The team took turns walking around the track, warming up in the tent, and eating maple sugar cookies graciously provided by Allyce Bolger '11.

Humane Society

An additional community service event will be performed at the Mohawk and Hudson River Humane Society on May 7th. Instead of working with animals, the group going will be helping in other ways around the shelter, the main of which will be sorting bottles that have been donated. This provides the shelter with money they otherwise would not have. There are at least 7 volunteers signed up for the event.

Section Picnic

After volunteering at the humane society, the group will meet up with additional members of the Section for a get together picnic. Food will be provided by members, and will involve a couple hours of relaxing and hanging out before going back to work.

Senior Appreciation Dinner

The senior appreciation dinner this year will be at Brown's Brewing Company on May 10th. This will be an exciting night where underclassmen can spend some final bonding time with the seniors, and of course there will be reminiscing about our time at RPI and with ANS. Active senior members will have their dinner paid for (with limitations due to the financial issues) but of course all Section members will be encouraged to join in the farewell. This year is the graduation of the largest nuclear class (~40) seen in recent years. ANS will be graduating a large portion of its membership with sad farewells.

Section T-Shirts

Every year the Social committee is responsible for organizing the annual Section t-shirt. This year the Section shirts were in celebration of the creation of the RPI ANS Section, titled with "RPI American Nuclear Society; Causing Mayhem Since 1964". In the spirit of true dorkiness and pure revelry of all things nuclear, the Section decided to open up all of the ANS shirt designs dating to within the last four years. This came as a desire to truly "rep" nuclear and expand the Section members' wardrobes as such. Shirts included "I <3 U235", "Gone Fission", "Fast Breeders", and "It's not rocket science, it's nuclear physics".



Conference Committee

The Conference Committee was created this year in anticipation of submitting a proposal to host the 2013 ANS Student Conference. The addition of this committee has provided the Section members with more opportunities to get involved in the RPI Section as well as a way to give back to the ANS national Section through the planning of such an important event. There are five active members on this committee who have been dedicated to researching and brainstorming ideas to create a noteworthy proposal. The committee chose a potential theme to lead the conference building; the theme chosen was "Binding the World through Nuclear Energy." The committee has contacted many people and places regarding venues, accommodations, and travel for a conference in Troy, NY. Lists of events, speakers, and workshops have been created to start generating a schedule for the extended weekend. A great deal of thought was put into creating an organizational structure to carry out the proposal objectives. Overall, extensive time and effort has been placed into this committee in order to start creating a proposal for next year.

The goal of the committee for next year is to have a proposal submitted. In order to do this, the size and support of the committee will be increased. Younger members will be encouraged to participate in the development of this proposal so that when RPI ANS obtains control over the next conference there will be many students ready to help in the implementation of the event. More ideas for events, speakers, and workshops will be brought to the table. All of the information gathered over the three semesters will be brought together to create a spectacular proposal for the Student Sections Committee to review.

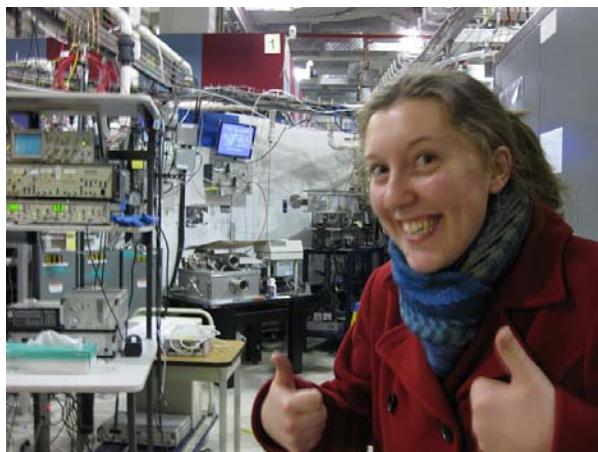


Section Trip

Brookhaven National Laboratory

On December 13th, the Section did something a little different than previous years. Instead of a reactor tour, members of the ANS Section went on a tour of Brookhaven National Laboratory. The day began with a warm welcome to the Section by Elaine Lowenstein (BNL), who presented a video to the Section regarding the research at BNL. Shortly afterwards, the students traveled to the National Synchrotron Light Source, and were given a tour led by Larry Car (BNL). Afterwards, the members had lunch, where they discussed what they had seen.

In the afternoon, Steve Musolino (BNL) gave a presentation on BNL's work in the field of Health Physics. Afterwards the students traveled to the main attraction: The PHENIX detector at the Relativistic Heavy Ion Collider. Students were in awe as the tour through the facility progressed, with many of the students taking pictures and asking questions. The tour ended shortly after, as some of the students went back to the main building to pick up souvenirs from the trip. Tour escorts included Graham Smith (BNL) and John Dabrowski (BNL). Approximately 15 students attended the event.



Laura Goulet '11 shows her approval of Brookhaven; Section members gape at the Heavy Ion Collider



Section Accomplishments

New Website

In the spring of 2010, development began on a new RPI ANS website, located at rpians.org. The old website hadn't been updated in years, due to the lack of website skills in the Board of Governors. This eyesore was remedied by Matthew Riblett '12, who began the site and continued to develop it over the summer. It was presented to the Section in its infancy at the end of the spring semester in 2010, and presented again as a finished product in the fall of 2010. The new website is not only a public display of the events that RPI ANS conducts, but a tool for the members of the Section. Each member can post a resume for employers to see, create an individual page accessible from the site, and access all of the official documents of the Section, including the Rules and Bylaws, the Plan of Action, previous Glasstone reports, and the PIRD. For site visitors, the website has an information Section, a news and events Section to see what the Section is up to, and links and information on other relevant sites.

Lapel Pins

This year in preparation for the 2011 ANS Student Conference the Section ordered lapel pins. Matthew Riblett '12 was responsible for the design of the pins, whose likeness is printed in the upper left corner of every page in the report. The pins were traded at the conference with other participating Sections, and many students came home with UNLV pins as well as Penn State pins. The treasure hunt for participating schools caused members of our Section to become acquainted with many other members of other Sections. The lapel pin is a much needed accessory for each member in the ANS Section. It is the Section's hopes that at some point in the future all alumni will wear the pins, representing RPI ANS in all its glory.

Formation of Alumni Chapter

At the most recent general body meeting on April 21st, Rick Gallo '09, presented to the Section about the formation of an Alumni chapter of RPI American Nuclear Society. Not only would this bring in revenue to the Section, but it would also establish better connections with alumni that could increase networking and job opportunities for the members of the Section. The seniors, all soon to be alumni, were in support of the formation. Their idea, though, was to expand the idea beyond a source of revenue, and have a legitimate chapter in which Alumni returned yearly on alumni weekend to do events with each other as well as the current Section. Wheels have been set in motion with the Heffner Alumni House regarding the records of all of the alumni associated with RPI ANS.



Bimal Malaviya Wins 37th Darrin Award

The Darrin Counseling Award is awarded to a faculty member who has made an unusual contribution in the counseling of undergraduate students. Rian Bahran '06 suggested to the session in a general body meeting that Professor Bimal Malaviya might be recommended for the award. In response members of the RPI Section wrote letters supporting his recommendation. Professor Malaviya endeared himself to students earlier in the academic year by agreeing to the wishes of ANS members Lane Waddell '11 and Jessica Hunter '11 for a nuclear engineering course on the history of nuclear weapons with a focus on disarmament, a course unlike any other ever taught at RPI. Professor Malaviya immediately agreed, without hesitation, provided the students created the syllabus. The course was advertised through ANS, and recruited about ten students. His immediate agreement to take on a course like this, along with his teaching of other undergraduate and graduate courses, has made him a sort of hero to the students. RPI ANS is proud to take credit for making Professor Bimal Malaviya the first nuclear professor in RPI history to win the award.

Local Relations with NENY ANS

RPI ANS continues to maintain a strong relationship with the Northeastern New York Section of American Nuclear Society (NENY ANS). This year our Section members attended the membership drive hosted by NENY ANS on September 16th, as well as the fall banquet on November 5th. NENY ANS often brings speakers to the Nuclear Engineering and Science building on RPI campus, supplementing the general body presentations with more technical presenters that would not be available otherwise. This year, RPI ANS and NENY ANS collaborated and worked together on the event Design Your Future Day, at an event separate from the booth already described. Presentations were given to some of the girls on nuclear power and safety. The relationship between the two Sections served the RPI Section in that there is an increase to talk and network with members of the NENY ANS Section, which is largely comprised of KAPL employees.

Mentoring Program

Every year, RPIA ANS attempts to guide its underclassmen through the maze of academia with the assignments of mentors, upperclassmen who are ready and willing to give advice. At the beginning of the year, underclassmen seeking help were paired up with upperclassmen. Mentors are there to provide help choosing classes, professors, methods on homework management, life at RPI, or just about anything. Vice president Lindsay O'Brien '11 organized this year's program.



Tutoring Program

The biweekly meetings of the RPI ANS Section are complimented by weekly tutoring sessions established by previous officers. Every Thursday night at 7 pm (Wednesday in the fall semester) members of the Section get together to do homework. Upperclassmen often bring their own back work, and if not, just themselves. Any student that needs help has only to wave a hand, or ask a question across the room. Over the last two years the tutoring program has morphed into something even better; an interactive study session. Students come to meet with their group mates and often come just to do homework while talking to friends, enjoying the friendly atmosphere. Oftentimes teaching assistants from nuclear courses set up shop at the tutoring sessions, increasing attendance and communication between the assistants and the students. This weekly event is one of the places at which the community of ANS really shows, as students from every class merge together to work and hang out.

WISE Program Selects Lauren Boldon

The Washington Internships for Students of Engineering (WISE) program selects 10 to 15 students across the nation to spend nine weeks in Washington DC to learn about public policy. This year we have the honor of boasting that Lauren Boldon '12 has been selected to participate for the summer of 2011. During the summer, Lauren will write a research report on fuel reprocessing, learning how she can change the public policy. She was featured in the March/April issue of ANS News. When asked about the program, Lauren said "I'm really excited to go to DC this summer."



Conferences

Despite the decrease in active membership the Section continues to increase the numbers of students attending both professional and student conferences. Aside from the information sessions and the career fairs, students have no feel for the nuclear industry. Encouraging more students to attend conferences allows for them to be exposed to the commercial industry, research happening at top universities and national laboratories, as well as the collaborative projects between them. Almost just as important, conferences provide students with exposure to the larger nuclear community, beyond that of the RPI campus. This is important in establishing contacts as well as understanding how all aspects of the nuclear field work together to advance the nation.

2010 Winter Meeting, Las Vegas, NV

On November 7th, the Section sent at least 11 members to the 2010 ANS Winter Meeting held at The Riviera in Las Vegas, Nevada. President Jessica Hunter '11 and Vice President Lindsay O'Brien '11 attended the Student Section Committee meeting. Michelle Okoniewski, '11, presented her research in pyro-electric fusion at the student poster session. Most students worked as student assistants, and all attended different sessions of interest.

2011 Student Conference, Atlanta, GA

On April 14th, the Section sent 17 members to the 2011 ANS Student Conference hosted by Georgia Tech in Atlanta, GA. The student Sections Committee meeting was attended by President Jessica Hunter '11. Five RPI students presented: Michelle Okoniewski '11, Selena Willoughby '11, Timothy Jackson '11, Dillon Shaver '08, and Rian Bahran '06. This year two of the Section's presenters won Best Presentation in their division; Michelle Okoniewski '11 for her research in pyro-electric fusion, and Dillon Shaver '08 for his work in thermal hydraulics. RPI ANS students, bearing the new lapel pins, represented the Section well. Students were excited to see Georgia Tech's campus, as well as some of the sights in Atlanta, including the World of Coke and the Georgia Aquarium.



Section members in front of the shark whale tank at the Georgia Aquarium in Atlanta

Conclusion

The Board of Governors for the year of 2010-2011 has had a highly efficient and successful year. This can be attributed to many improvements made in the structure of the section, as well as the dedication of the officers, committee heads, and section members. It is hoped that in the coming year, the increased number of events and active recruiting will increase the active membership. Despite any obstacles, the RPI ANS section will continue to grow in influence, visibility, and activity.

