



THE *BILLET* STC NEWSLETTER

OFFICIAL NEWSLETTER of the STATE of TEXAS CHAPTER of the HEALTH PHYSICS SOCIETY

Volume 39, Number 2 • Specialists in Radiation Safety • August 2018

Fall Conference and Affiliates Fair will be held in Granbury

The Fall Conference and Affiliates Fair of the STC-HPS will be held on Monday and Tuesday, September 10–11, at the beautiful Lake Granbury Conference Center.

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STC Science Fair Nominees Win National HPS Awards

Yasmin Jenna Jackson (Junior Division) and Steven Drabbant (Senior Division) were recognized as winners of the prestigious national Health Physics Society Science Fair Award.



Highlights from the April Student Presentation Meeting at Texas A&M University, College Station

The STC Annual Student Presentation meeting and the Executive Council meeting was hosted by Texas A&M University, College Station, Texas.

Photos from the April Student Presentation Meeting

Meeting

The Student Presentation meeting was held on April 7 at the Texas Institute for Pre-Clinical Studies (TIPS). More than 65 attended Saturday morning, and all of them enjoyed the excellent breakfast.



South Texas Chapter met in Cleveland

There was a good turnout for the breakfast meeting.



Bob Emery is excited that the Washington Capitals won the Stanley Cup

Bob Emery, the only known Caps fan in the Chapter (at least the only one who hasn't already suffered cardiac arrest), is wearing full Capitals regalia.

Newly Released Smartphone App and Updated RIID Electronics Pack Features into SAM 950-X Isotope Identifier

Berkeley Nucleonics (BNC) offers the SAM 950-X, its third generation Isotope Identifier, with embedded smartphone technology for a broad range of applications.

NRC Awards Fiscal Year 2018 Academic Grants

Congratulations to the State of Texas institute of higher learning for receiving NRC Grants for 2018!

Fall Conference and Affiliates Fair Sept. 9-11 in Granbury

By: Latha Vasudevan, Ph.D, CHP, STC-HPS President

The Fall Conference and Affiliates Fair of the State of Texas Chapter of the Health Physics Society will be held on Sunday through Tuesday, September 9–11, 2018, at the beautiful Lake Granbury Conference Center. We are expecting the National HPS president and President-elect to visit the chapter during the meeting. A technical tour of Comanche Peak Nuclear Power Plant is planned for Tuesday, September 11. **If you are interested in going for the Comanche peak tour on Sep 11th, please send us your names as soon as possible. We need a headcount!**

Registration is now OPEN. You can find the meeting information including the registration link and link to reserve your hotel rooms here: <http://events.constantcontact.com/register/event?llr=f5gcvhqab&oeidk=ao7efjzews4baod934>.

This meeting facility near Fort Worth and Dallas has an adjacent full-service hotel – Hilton Garden Inn, 635 East Pearl St., Granbury, TX, 76048 (844) 228-4122.



A block of rooms will be available for the nights of September 9 and 10 at the state reimbursement rate of \$93 + 13% tax. To register at the Hilton, please visit this link - <http://hiltongardeninn3.hilton.com>. Use the Group Code as STCHPS. Make your reservations early to ensure this rate. It will only be available until August 21 or the block is full.

A welcome reception will be held the evening of September 9, 6 p.m.–8 p.m., at the Hilton Garden Inn Ballroom.

Meeting will be convened at the Granbury Conference Center adjacent to Hilton Garden Inn September 10 (8 a.m.–5 p.m.). If you would like to give a presentation, please contact President-Elect Tracy Tipping at ttipping@att.net for more information. Our vendors will also be in attendance to help you meet all your radiological service needs.

The Executive Council Meeting is scheduled for the evening of September 10.

A tour of the Comanche Peak Power Plant is tentatively scheduled for September 11.

We look forward to seeing you all in September!



STC Science Fair Nominees Win National HPS Awards

By: Linda Morris, Student Assistance Chair

The State of Texas Chapter (STC) was recently notified that its nominees for the prestigious national Health Physics Society Science Fair Award had won the 2018 award. Yasmin Jenna Jackson (Junior Division) and Steven Drabbant (Senior Division) were nominated by the STC Student Assistance Committee for the awards in May. They were officially recognized as winners of plaques and checks for \$500 at the HPS national conference in Cleveland, Ohio. Yasmin and Steven will be presented with their awards at the STC fall meeting in Granbury in September.

Steven, a 10th grade student at The Academy of Science and Technology in The Woodlands, Texas, created a project entitled "Improved Reception Techniques to Overcome the Sun's Negative Effect on Radio Propagation." Yasmin's project is titled "Radioactive Dinner," and examined radioactivity in salmon. Yasmin is currently a 9th grade student at York High School in Spring, Texas. Both Steven and Yasmin were STC regional science fair winners during the spring of 2018. They both elected to join the STC and were presenters at the April STC meeting in College Station. STC President Latha Vasudevan presented both students with Barnes and Noble gift cards at the meeting.



Steven Drabbant (Senior Division)



Yasmin Jenna Jackson (Junior Division)

A third student also won a state HPS science fair award at the Texas Science & Engineering Fair held in San Antonio in March 2018. Shankar Prathyush from Westwood High School in Round Rock developed a project entitled "Marked Reduction in ATPase Activity in Staphylococcus Aureus Through Low Power Electromagnetic Waves as a Novel Alternative to Antibiotics." Shankar was a senior last spring and is expected to attend Texas A&M University this fall.

In other student news, the STC supported three students via the Travel Grant program to attend the national HPS conference in Cleveland. Barbara Fisher and Zachary Olson are graduate students in health physics at Texas A&M University. Austin Nichols is a student at Texas State Technical College in Waco. Each student received a check for \$250 to defray expenses associated with attending the conference.

In a final note, State of Texas Chapter-HPS Fall 2018 Education Grant winners will be announced at the September meeting in Granbury. Checks for \$1,000 each will be presented to an associate degree, undergraduate degree, and graduate degree student. For more information on the STC Student Assistance Program, visit stc-hps.org or contact Linda Morris at lkmorris288@gmail.com.



Highlights from the April Student Presentation Meeting at Texas A&M University, College Station

By: Latha Vasudevan, Ph.D, CHP, STC-HPS President

The State of Texas Chapter of the Health Physics Society (STC-HPS) held its Annual Student Presentation meeting and the Executive Council meeting on April 6-7, 2018, hosted by Texas A&M University, College Station, Texas. The Executive Council meeting was held April 6 at 6 p.m. at Environmental Health and Safety, 1111 Research Parkway. Members present were Tracy Tipping (STC-HPS president-elect), Janet Gutiérrez, Sandra Ramirez, Erich Fruchtnicht, Linda Morris and John Hageman. Others in attendance were Scott Nickelson and Doug Johnson. The Election results for the new officers of the Chapter were announced. Tracy Tipping as President-Elect, William Pate as Secretary, Billie Harvey moved from Secretary to Board member and Latha Vasudevan moved from President-Elect to President. Amanda Sullivan will serve as Past President and Jay Poston as the Treasurer. Erich Fruchtnicht and Janet Gutiérrez will continue as Board members.

The Student Presentation meeting was held on April 7 at the Texas Institute for Pre-Clinical Studies (TIPS). We had more than 65 attendees Saturday morning and all of them enjoyed the excellent breakfast served by MadTaco. The morning sessions started off with undergraduate degree candidates from Texas A&M University, College Station and Baylor University, Waco. This was followed by two high school students (Science Fair winners) who shared their phenomenal work "Radioactive Dinner" and "Improved Reception Techniques to Overcome the Sun's Negative Effect on Radio Propagation" respectively.



From L to R: Erich Fruchtnicht, Tracy Tipping, Latha Vasudevan, Billie Harvey, Janet Guitierrez, Linda Morris, and Sandra Ramirez

The afternoon sessions began around 1 pm after a sumptuous lunch catered through J. Cody. The first talk was from an Associate degree candidate from Texas State Technical College, Waco followed by Masters and Ph. D students from Texas A&M University. The talks ranged from a wide variety of health physics topics and all the students did an excellent job on sharing their work in front of the radiation safety professionals.

A total of \$1050 dollars in awards was given for the best presentations by education level: Associate, Bachelors, and Graduate. In addition, the Chapter also provided appreciation gift cards to both the Science Fair winners.

The winners were:

- 1st place Associate (\$250) — Austin Nichols (TSTC, Waco) — Brazos River Soil Phase II
- 1st place Bachelors (\$250) — Catherine Arndt (Baylor, Waco) — Experimental Demonstration of Perfect Absorber in Epsilon-Near-Zero Films
- 2nd place Bachelors (\$100) — Cailin O'Connell (TAMU, College Station) — Biokinetic Models for Group VB elements
- 3rd place Bachelors (\$50) — Soleil Hernandez (TAMU, College Station) — Total Body Irradiation Therapy with Aluminum Compensators Fabricated Using Waterjet Technology
- 1st place Graduate (\$250) — Katie Cook — Protocol for Studying a Canine in a Contaminated Working Environment

- 2nd place Graduate (\$100) – James Falkner – Minimum Detectable Activity as a Function of Detector Speed
- 3rd place Graduate (\$50) – Zachry Olson – A Model of Aircrew Exposure from Solar Gamma Events



Associates, 1st place winner
Austin Nichols



Bachelors, 1st Place winner
Catherine Arndt



Graduate, 1st Place winner
Katie Cook



Student Presenters (*Photos Courtesy: Stan Bravenec*)

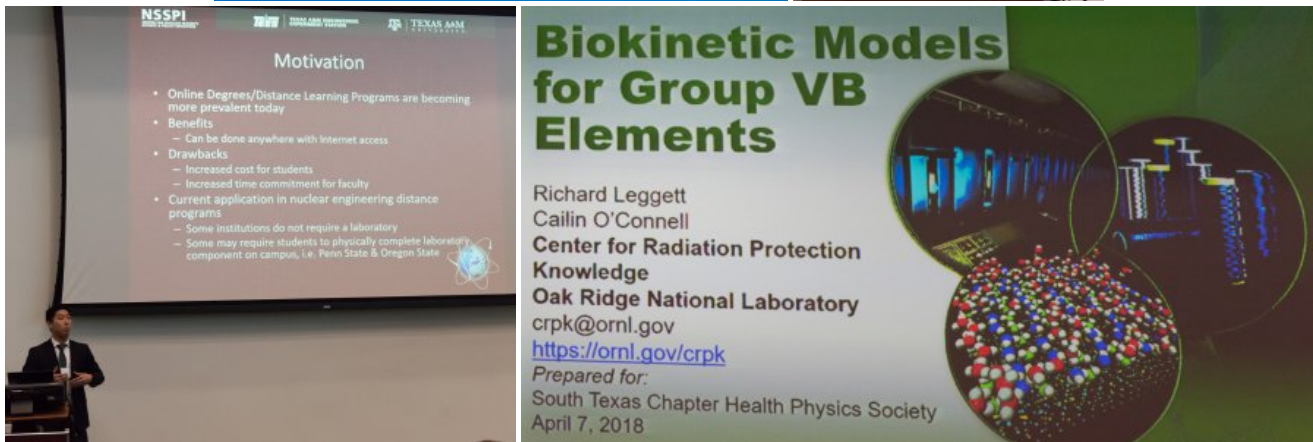
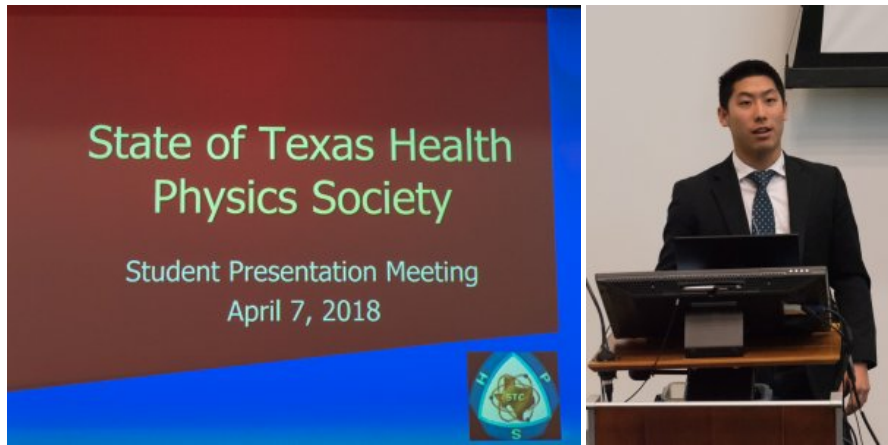
Congratulations to all the presenters for their outstanding work and thanks to all the Chapter members and volunteers for their tireless effort in making this meeting a grand success. More pictures of the meeting are located in the following link:

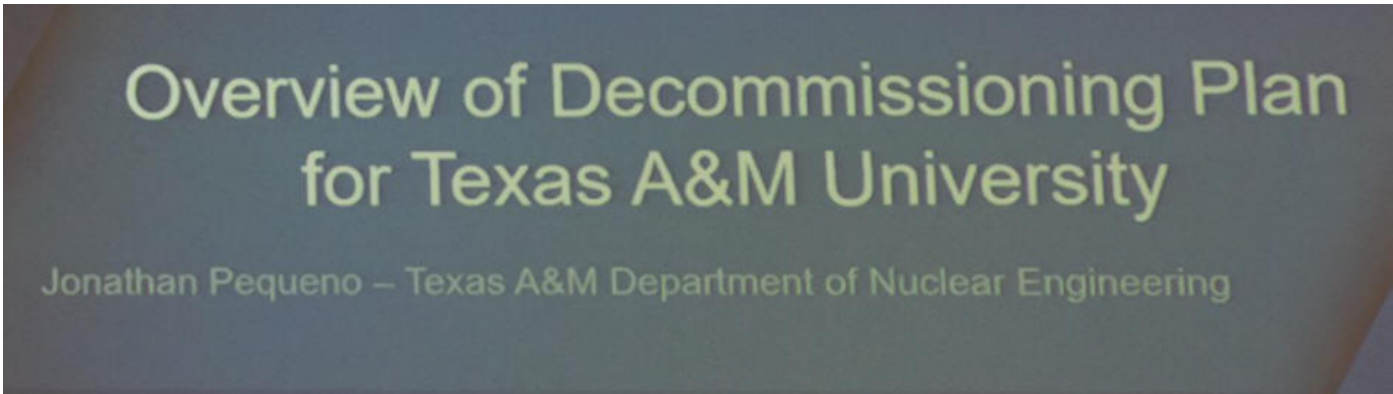
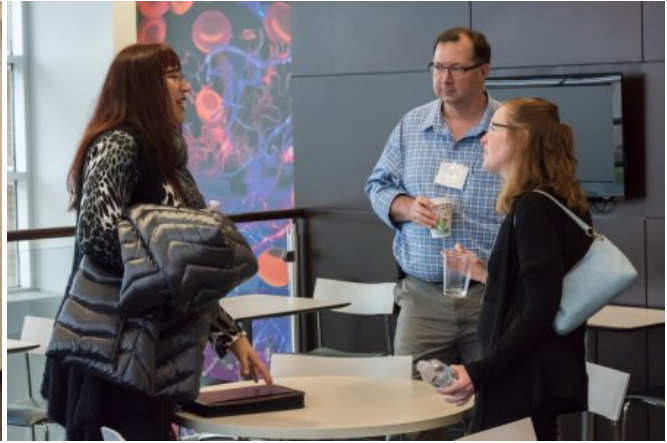
<https://stanbravenec.smugmug.com/STCHPS-April-2018/>



Photos from the April 2018 Student Presentation Meeting

[View these photos with captions.](#)





Experimental Demonstration of Perfect Absorber in Epsilon-Near-Zero Films

Catherine Arndt,¹ Aleksei Anopchenko,¹ Long Tao,¹ and Ho Wai Howard Lee¹

¹ Department of Physics, Baylor University, Waco, TX 76798, United States
The Institute for Quantum Science and Engineering, Texas A&M University College Station, TX, United States



Total Body Irradiation Aluminum Compensators

Soleil Hernandez | Madison Naessig



UNDERGRADUATE RESEARCH SCHOLAR



UT Health San Antonio



Dose Assessment of Radiation Fields Inside the First Optical Enclosure of Beamline 8-ID-A at the National Synchrotron Light Source II

Kalifa O. Kelly & Jessie R. Zapata III
Texas Southern University

STC-HPS Student Presentations and Annual Business Meeting, April 7, 2018






Improved Reception Techniques to Overcome the Sun's Negative Effect on Radio Propagation



Big Solar Event

- A very rare solar event occurred in early September 2017
 - This was at a very low point in the solar cycle
- Over 20 M Class Flares and 4 X Class Flares
 - The largest solar flare of the decade (X9.3)
- Ionospheric effects lasted for days
- Impacted GPS and HF radio communications using normal modes of communication such as voice and CW





Brazos River Soil Analysis

PRESENTED BY: AUSTIN NICHOLS

TEXAS STATE TECHNICAL COLLEGE
RADIATION PROTECTION TECHNICIAN STUDENT

FACULTY ADVISOR: JACOB NAVAR



**Minimum Detectable Activity as a
Function of Detector Speed**

JT Falkner, Craig Marianno
Health Physics Society
South Texas Chapter Meeting
7 April 2018

NPI
NUCLEAR POWER INSTITUTE

Systems Engineering Initiative

“Development of a Portable Area Radiation Monitor (A.R.M.)”

Nathan Mabry - Team Lead/Mechanical Engineering
 Aldo Sosa - Electrical Engineering
 Shawn Popal - Computer Engineering
 Kate Saucke - Radiological Health Engineering
 Colby Thordsen - Nuclear Engineering

ATM | TEXAS A&M UNIVERSITY | TEES | TEXAS A&M ENGINEERING EXPERIMENT STATION



NSSPI
NUCLEAR SAFETY & FACILITY INITIATIVES

ATM | TEXAS A&M UNIVERSITY | TEES | TEXAS A&M ENGINEERING EXPERIMENT STATION

Protocol for Studying a Canine in a Contaminated Working Environment

Katie Cook



Why are search and rescue (SAR) dogs critical for emergency response?

Effective	Team Players	Talented
Economical	Flexible	Deployable

ATM | **ENGINEERING**
TEXAS A&M UNIVERSITY

A Model of Aircrew Exposure From Solar Gamma Events

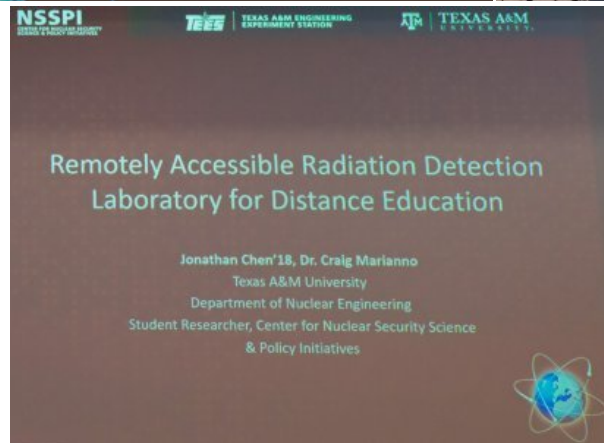
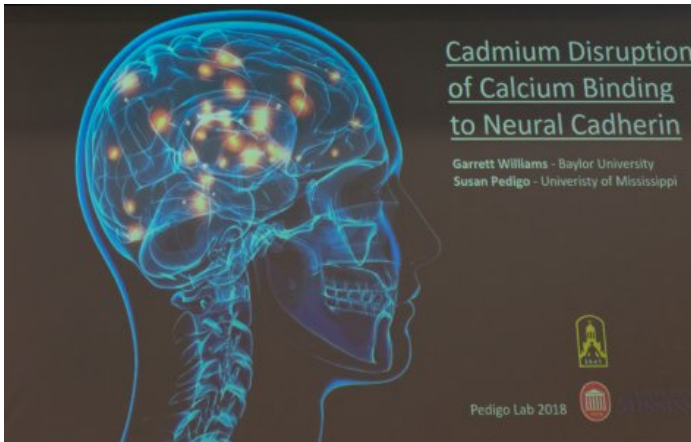
Zachary Olson
 PhD Candidate
 Nuclear Engineering & Health Physics
 President, Texas A&M Health Physics Society



MARS HABITATS, RADIATION, PLANETOCOSMICS, AND GEANT4

Jim Chisholm
 Graduate Student
 TAMU NUEN





STC-HPS Held Breakfast Meeting in Cleveland

Contributed by: Latha Vasudevan, Ph.D, CHP, STC-HPS President

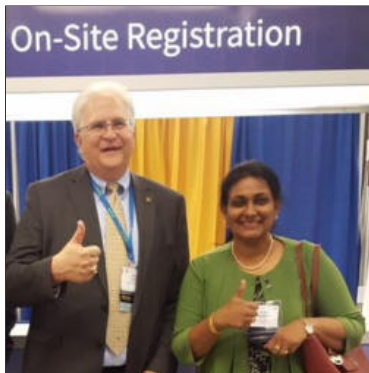


Photo at the left: HPS President Nolan Hertel with Latha Vasudavan

Photo below: The State of Texas Chapter met at the National HPS meeting in Cleveland, Ohio; we had a good turn out for the breakfast meeting on July 17.



Bob Emery Is So Excited! Washington Capitals Win Stanley Cup

Contributed by: Dr. Mike Charlton and Jennifer Cerecero

After 43 seasons and seemingly endless postseason struggles against the Pittsburgh Penguins, the Washington Capitals won the 2018 Stanley Cup. The Capitals' team started in their expansion season with the worst season in league history and has toiled to mature and rebuild their team after a lifetime of disappointment. Their Cup losing streak is equivalent to ~3.5 tritium half-lives. The team went into this season with the approach to work hard this year, outwork teams, play longer than other teams, and possibly win a championship. The Caps finally learned from their historical playoff thumping by the Penguins and can now celebrate this 2018 Stanley Cup Championship win. This is Washington D.C.'s first major North American Sports win since the Redskins beat the Bills 26 years ago.



Pictured is the only known Caps fan in the Chapter (at least the only one that hasn't already suffered cardiac arrest), the esteemed Dr. Bob Emery wearing full Capitals regalia.

And remember, it's never too early to start talking dynasty, Bob!



Newly Released Smartphone App for SAM 950-X Isotope Identifier

By: Allan Gonzalez, VP of Sales, Berkeley Nucleonics

Newly Released Smartphone App and Updated RIID Electronics Pack Features into SAM 950-X Isotope Identifier

Berkeley Nucleonics (BNC) offers the SAM 950-X, its third generation Isotope Identifier, with embedded smartphone technology for a broad range of applications. The new design is hardened for field applications and includes significant updates to the library and identification algorithm. In addition, the high-performance electronics package and efficient power management tools deliver users versatility and performance. The front-end interface and much of the data processing are handled by a powerful android-based computing module, much like the latest smartphones on the market.

BNC offers a free app, PeakAbout, which provides the operator with a host of exciting features to speed up training and field work, deliver quality data sets to reachback or educate the field operator on mitigation routines. The latest release of PeakAbout, version 2.0.3, includes handy updates on data storage and retrieval, sleep mode options, local XML support, WiFi-assist, and video annotation support. The SAM 950 is also the first and only RIID to integrate seamlessly with the FEMA/RadResponder network; this gives end users the ability to log, transmit, analyze, and store data in a secure cloud environment. The transmissions can be sent on-demand or 24/7 in "livestream" mode. The 2.0.3 update also includes a larger library (now 57 isotopes) and an adaptive filter for better peak smoothing. Updates are always free.



The enclosure for the SAM 950 is our most rugged to date, offering shock resistance (1-M drop) and water/sand resistance (IP65). Batteries can be replaced in the field in case of prolonged monitoring activities. New networking functionality will allow for a smoother and more efficient flow of data and information. The bright display allows all-angle viewing in daylight or indoor applications. The SAM 950 also offers several detector options as well as a solid state neutron detector and NaI, LaBr or CeBr gamma detectors. All SAM 950s include a GM-Tube for accurate high count rate measurements. For applications requiring performance spectroscopy, the 2x2 CeBr-3 delivers fast response times and well defined spectral data, eliminating any uncertainty in isotope identification (4.5% @ 662 KeV).

The app is unique to BNC, and a great vehicle for us to deliver new features and address library updates and customer requests. When new medical isotopes become common, or users want a social media integration, we can roll out updates to PeakAbout in a few weeks.

About Berkeley Nucleonics — *Berkeley Nucleonics Corporation is a leading manufacturer of precision electronic instrumentation for test, measurement and nuclear research. BNC has its corporate headquarters in San Rafael, California, with several additional manufacturing facilities and sales offices located throughout the United States. Founded in 1963, BNC is a recognized leader in the field of isotope identification and conducts hundreds of short courses on radiation detection and isotope identification for Federal and State agencies.*



NRC Awards Fiscal Year 2018 Academic Grants

By: John Hageman

Congratulations to the State of Texas institute of higher learning for receiving the following NRC Grants for 2018!

FY 2018 Faculty Development Grant Awards:

- **University of Texas San Antonio**, \$450,000
Nuclear Fuels Research and Development Faculty Development Program at the University of Texas at San Antonio

FY 2018 Scholarship Grant Awards:

- **Texas A&M University**, \$197,236
Texas A&M University Undergraduate Scholarship Nuclear Program
- **Texas A&M University-Kingsville**, \$186,306
Scholarship of Excellence in Nuclear Engineering at TAMUK
- **University Houston Downtown**, \$195,080
UHD Developing Health Physics and Nuclear Science Concentration Pathways for Biological and Physical Science Majors
- **University of Texas at Austin**, \$100,000
Undergraduate Scholarship Program
- **University of Texas at El Paso**, \$199,879
Scholarship (University of Texas at El Paso, UTEP)

FY 2018 Fellowship Grant Awards: None

2018 Trade School and Community College Scholarship Grant Awards: None



STC – EC Meeting – College Station, TX
April 6, 2018

1) Persons in Attendance:

Tracy Tipping
Janet Gutierrez
Linda Morris
John Hageman
Jay Poston
Sandra Ramirez
Latha Vasudevan
Scott Nichelson
Billie Harvey
Erich Fruchtnicht
Doug Johnson

2) Meeting Convened

Meeting convened at 6:33 by Janet Gutierrez, seconded by Sandra Ramirez

3) Reports Made

President – Amanda Sullivan

Report sent via email.

- Status of Charter – National website has been changed to reflect State of Texas
- Ali Simpkins Nomination for Treasurer-Elect for National HPS. Submitted letter of support on April 3rd 2018.
- December 2017 meeting – Thank you to everyone for your help and a big thank you to Latha for stepping in for me. Everything I've heard has been positive and I have all of you to thank for that.

President-Elect – Latha Vasudevan

- Next meeting September 2nd week
 - September 10th eve-planning for affiliates reception (Jennifer can you find out if this is possible)
 - September 11th- full meeting (I will work with Tracy on this)
 - September 12th- Comanche Peak tour tentative
 - Will enquire about minors and other family members.
 - National HPS president and President-Elect invited for Sept meeting and planning to attend
- Will check on hotel in Glenrose - state rate, reserved rooms, etc.
- Discuss registration charges for science fair awardee/neff-poston awardee
- Website
- Facebook page – Does STC-HPS still have Facebook page and if so, who is updating? Check with Will Pate. He used to do the updates.

Motion to approve new members. New members approved.

	Category	2018	Comments	2017	2016	2015	2014	2013
1	Honorary Lifetime Memberships	2	Hageman, Poston	1	1	2	2	2
2	Individual Memberships	101		117	111	116	130	241
3	Student Memberships	5		11	62	10	11	22
4	Science Fair Winners	0		3	2	0	2	0
	Sub-Total	115		115	176	127	143	167
5	Affiliate Memberships	3		15	23	22	22	18
	Total	110		135	199	149	165	185

(Numbers of 2018 Members, above, includes New Members listed below)

New Members

Nichols	Austin	Student	
Jackson	Yasmin	Student	
Saucke	Kate	Student	
Hill	Stuart	Regular	TAMU
Liu	Yuqing	Student	
Naeem	Syed	Regular	Texas A&M University
Mirza	Abdallah	Regular	Texas A&M University
Traphan	Nicole	Regular	TCEQ
Hebel	William	Regular	UT Health - Houston
Green	Ryan	Regular	University of Texas
De Los Reyes	Eira	Regular	University of Texas
Rogers	Louis	Regular	
Gutierrez-Garcia	Nina	Student	MD Anderson
Owens	Dylan	Student	

Affiliates Report – Jennifer Cerecero

Report sent via email.

1. Affiliate Members to Date – 14 total (2017 & 2018)
 - a. 2018 Renewals – Owens, ARDT, Suntrac
2. April 2018 – Will email out reminders for dues & try to get new affiliates this month. If you know of any companies that might be interested please send them my way.

**** Jennifer/Erich check with vendors about September meeting; reception on Monday evening on the 10th**

Secretary – Billie Harvey

Check national HPS site for contact emails for defunct chapters to reach out to them about including previous members in STC chapter correspondence. State and TCEQ has had large turnover in people. Reach out to them as well.

Treasurer- Jennifer Cerecero

Petty Cash Fund: \$ 85.00

Bank Accounts:

Bank Account	Previous Balance	Interest Received	Current Balance
Science Teacher (0279)	\$ 3990.98 (November 9, 2017)	\$ 0.64	\$ 3991.62 (March 9, 2018)
Student Scholarship (5456)	\$ 5119.48 (November 14, 2017)	\$ 0.83	\$ 5120.31 (March 14, 2018)

Bank Account	Previous Balance	Net Change	Current Balance
Operating Account (1166)	\$37479.51 (November 29, 2017)	(\$10532.10)	\$26947.41 (April 5, 2018)

Deposits into Operating Account:

PayPal	Treasurer Deposits	Hyatt Refund	Total
\$5434.69	\$990.00	\$3426.22	\$9850.91

Payments from Operating Account:

EXPENSE	AMOUNT
Website Fees	\$50.97
Weebly Fees (new website)	\$504.00
Office Supplies (Checks & New Treasurer Case)	\$195.62
Billet Fees	\$680.00
FedEx Poster for Last Meeting	\$128.80
Scholarship Winner	\$1000.00

Constant Contact	\$90.00
Hyatt Fees	\$17699.72
Secretary of State Name Change & Non-Periodic Report	\$33.90
TOTAL	\$20383.01

Summary of Meetings:

	Number Attending/Registered to	Amount Received	Meeting Cost	Difference
Waco Meeting 4/2015	49 attendees	\$1145.00	\$737.49	\$407.51
San Antonio Meeting 9/2015	60 attendees	\$4533.89	\$5093.31	(\$ 559.42)
College Station Meeting 4/2016	52 attendees	\$1115.00	\$2544.28	(\$1429.28)
Clear Lake Meeting 9/2016	80 attendees	\$8603.58	\$10019.12	(\$1415.54)
Waco Meeting 4/2017	41 attendees	\$1153.93	\$1106.50	\$47.43
Bastrop Meeting 12/2017	70 attendees	\$11670.00	\$19773.50 TBD	(\$8103.50)

Annuities:

Annuity	Previous Values	Current Values
Lincoln (699, 700, & 701)	\$ 31331.88 11/29/2017	\$ 31566.45 11/29/2017
Edward Jones	\$129819.39 11/29/2017	\$129646.62 11/29/2017
Total Values	\$161151.27 11/29/2017	\$161213.07 04/05/2018

*Rolled the cash from the Edward Jones account into the mutual funds.

Proposed 2018 Budget:

ESTIMATED INCOME:

\$ 12,000 Dues, Donations, Account Interest, & Investment Income

PROJECTED EXPENSES:

\$ 13,000 TOTAL including:

\$ 6,550 Student Assistance

\$ 3,000 - Three \$ 1,000 Educational Grants (include Undergraduates)

\$ 2,000 – Student Travel Grants
\$ 1,050 – Three \$ 250 & three \$ 100 Research Paper Awards
\$ 500 – Science Fair Awards
\$ 1,000 Billet Preparation and Editing
\$1000 Internet
\$ 1,500 Programs/Meetings*
\$ 1,400 Science Teacher Workshops
\$ 2,550 Administrative Expenses
\$ 750 – Bank, Post Office, Credit Card, and PayPal Charges
\$ 250 – Internet Host Fees
**\$ 1000 – Webmaster Fees
\$ 300- Constant Contact Fees
\$ 150 – Plaques and Awards
\$ 100 – Miscellaneous

* This is estimated cost exceeding monies received from registration fees.

** Budget listed is approved by the Executive Council pending verification of originally approved budget for Webmaster fees.

Student Assistance Committee Report – Linda Morris, Committee Chair

- 1. Science Fairs** – The South Texas Chapter participated in one regional science and engineering fair and the Texas Science and Engineering Fair. The winners are:

Science and Engineering Fair of Houston (Feb. 23-24, 2018):

Junior Division Winner: Yasmin Jackson, York Junior High School, Spring, TX – “Radioactive Dinner.” Yasmin also won a category award at the Texas Science & Engineering Fair in San Antonio. She has joined the STC, and will be presenting tomorrow.

Senior Division Winner: Steven Drabant, Academy of Science and Technology, Woodland, TX – “Improved Reception Techniques to Overcome the Sun’s Negative Effect on Radio Propagation.” Steven will be attending tomorrow also.

Texas Science and Engineering Fair (March 23-24, 2018):

Winner: Shankar Prathyush, Westwood High School, Round Rock, TX – “Marked

Reduction in ATPase Activity in *Staphylococcus aureus* Through Low Power

Electromagnetic Waves as a Novel Alternative to Antibiotics.”

The regional award winners were given a 7” X 9” plaque and a one-year complimentary student membership to the STC-HPS. The Texas winner received an 8” X 10” plaque, a \$50 check, and the student membership.

Thanks must be extended to our judges. They had *hundreds* of projects to sort through to find the ones related to radiation. Our gratitude is extended to:

Houston: Sandra Jimenez, Billie Harvey, and Stan Bravenec. (Janet Gutierrez presented the awards at the Awards Ceremony.)

Austin and Central Texas: Linda Morris (no qualifying projects)

Texas State Fair: Linda Morris

***Question:** In years past, winners were also given a copy of the *Chart of the Nuclides*. The distributor at that time provided “seconds” to us free of charge. The publisher has since changed distributors, and the new company is unable to provide the free copies. Janet Gutierrez has emphasized the important of providing this book to the winners and is requesting that the copies be purchased. It is estimated that we would need 4-6 copies per year. (Note: Even though we just had three winners this year, we would like to add the Dallas Regional Fair next year since staff at UT Southwestern have volunteered to judge up there. We also may have qualifying projects at the Austin and Central Texas fairs in the future.)

One of the student projects will be nominated for the national HPS Science Fair Award.

*The Executive Committee has approved the purchase of the charts. Current budget allotted for the science fairs should be enough to include the purchase of the charts.

- 2. Education Grants for Associate Degree and Graduate Degree Students** – Applications are available at this meeting. The applications on the website have incorrect contact information for Linda. (Can we get the webmaster to update these pages?) The deadline for the applications is the end of May. Applicants must be members in good standing of the STC. The grant is for \$1000 per award. The Neff-Poston award will be made in the fall to an undergraduate Radiological Health Engineering student at Texas A&M University. This award is approximately \$1250. Since the RHE program is being eliminated, there is some uncertainty about how the TAMU Nuclear Engineering Awards Committee will make these awards in the future.
- 3. Student Paper Presentation** – Student presentations will be given tomorrow. As usual, there will be three levels of competition: Associate, Undergraduate, and Graduate. Two awards will be given at each level (1st - \$250, 2nd - \$100) unless the Executive Council decides otherwise. (Note: Since there is only one associate degree presenter, can we take the \$100 second place award and split it among the other two groups as a third place?) Please select three or four judges at this meeting tonight.

***Questions:** We are giving the high school/junior high school presenters each a \$25 gift card. Is that acceptable? Also, can we discuss the registration fees paid by student presenters for the annual student conference? We have had two policies over years: student presenters register and enter a code which allows them free registration or student presenters pay the regular student registration fee. Current year Neff Poston awardee free?

*See New Business Section for discussion.

4. **Student Travel Grants** – Assist students desiring to attend the national HPS meeting in Cleveland this summer. Students receiving national travel grants will be notified soon. The HPS covers lodging, registration, and is giving about \$350 to each student to cover cost of transportation. Please consider awarding a student additional funds to make up the difference between actual expenses and the awards. Forms are available to be passed out tomorrow. (Updated list of current student members?)

5. **Academic Program Update** – Jacob Navar is leaving TSTC for another position at a Texas nuclear power plant. It is uncertain at this time what impact his leaving will have on the Radiation Protection Technology Program. He will be attending tomorrow with three or four students. The College has posted both an adjunct and a full-time position.

Visits to Student Branches – Linda along with Latha and Erik visited the TAMU Student Branch on February 1st to present information on the STC Student Assistance Program. Linda donated for the STC to cover the cost of the pizza at a future meeting. Linda also visited the TSTC Student Branch two weeks ago to present the same program. No donation was made since they already had purchased pizza for the meeting.

**Neff/Poston award – Latha will speak with department to recommend award goes to someone interested in Health Physics since that was the original intent of the award.

Legislative Committee Report – Bobby Janecka

Nothing to report.

Science Teachers Workshop Report - Ken Krieger, Science Teacher Workshop Coordinator

Nothing to report.

Public Relations Committee Report - Janet M Gutiérrez

Emery Fellowship at UTHealth School of Public Health Fellowship has been unveiled and is no longer secret. Thank you to the STC HPS leadership for their generous gift.

Request for Chart of the Nuclides to be included as part of science fair awards. This item has been consolidated with the Student Assistance Committee item on the same topic.

Nominations Chair Report – Sandra Ramirez

- Election result
 - President Elect – Tracy Tipping
 - Secretary – Will Pate
 - Board Member – Billie Harvey

Motion to certify results by Erich Fruchtnicht, 2nd by Sandra Ramirez. Motion passed.

Future STC-HPS Meetings and Deadlines for *The Billet* – John Hageman, Editor of *The Billet*

<u>Date</u>	<u>Location</u>	<u>Topic</u>	<u>Deadline</u> for <i>The Billet</i>
April 7, 2018	College Station, TX	STC Student Presentations & Annual Business Meeting	Feb. 1, 2018
July 15-19, 2018	Cleveland, OH	63 rd Annual HPS Meeting	NA
Sept. 10-12, 2018	Dallas Area	Affiliates' Fair and Technical Meeting	July 10, 2018

6. New Business

The Executive Committee has agreed that student presenters at the April meetings shall receive free registration and free lunch. All student presenters shall be eligible for the presentation awards. However, only student members of the chapter in good standing shall be eligible for travel grants.

Science fair presenters and a maximum of two guests each will also be given a free lunch.

Executive Committee should begin thinking about another joint state/chapter meeting.

Reinstitute leaving people on email list even if dues expired. There can be an email group for correspondence for members in good standing but anyone who is interested, member or not, should be able to receive emails about meetings and other general information to promote and support interest in the STC-HPS.

Deadline for Billet July 10th.

Wish list for official officer tags to identify the officers and make it easier to identify them during meetings.

Request to TRAB to receive guidance about who can order and perform various x-ray procedures. The regulations are confusing and disjointed. Jay Poston will draft a letter for John Hageman to put on the TRAB agenda for June's meeting.

7. Adjournment

Billie Harvey requested adjournment, 2nd by Sandra Ramirez. Meeting adjourned 8:33pm.