

PENN STATE NUCLEAR ENGINEERING SOCIETY
Meeting Minutes – August 20, 2017 – PSNES On-Campus Meeting (214 Reber)

Participants:

PSNES Officers and Directors (with vote):

Doug Wood - Interim PSNES President with proxy votes for At-Large Directors John Atchison, Matt Wargon and Jim Tusar

Hilary Neal - Secretary/Treasurer

Arthur Motta - NucE Program Chair

Kenan Unlu - RSEC Director

Duane Karchner - At-Large Director

Matt Ellis - At-Large Director

Michael Pantano - At-Large Director

Rick Etling - Immediate Past President

PSNES Board Members (ex officio members without vote):

Dale Hoffman - PSEAS President

Emily Humes - PSU ANS Student Chapter President (also representing PSU Women in Nuclear)

PSNES Members

Joe Sholtis

Pat Loftus

Jeremy Barnhart

Hamilton Gubanc

Other Attendees

Karen Thole - MNE Department Head

Adrian Leandro - PSU Alpha Nu Sigma President

Opening

The meeting was called to order at 11:00 am by Doug Wood. Including the 3 proxy votes, 11 voting members were present. A quorum was confirmed (8 or more voting members as defined in the Constitution) for conducting official PSNES business.

Note: The meeting notes follow the order of the agenda rather than the actual order, which was dictated by the availability of attendees.

Old Business

Approval of May 25, 2017 Meeting Minutes

The minutes were approved for the May 25, 2017 meeting, with changes as noted by meeting attendees. The final version of these minutes will be posted on the PSNES website. There is a backlog of unapproved meeting minutes for prior meetings, which will be completed over time.

Financial Report

Arthur Motta provided a verbal financial report, including the following account balances:

- o PSNES Account - \$1571 is the current amount
- o \$1000 in APG grant money is separate from this (held in a separate account)

PSNES Annual Report

Doug Wood reported that PSNES sent its Annual Report to PSEAS at the end of June 2017 as required by PSEAS. The annual report has been added to the PSNES website. Pat Loftus, the PSNES representative reiterated the importance of providing an annual report for the APG/PSEAS annual report – this is what allows us to remain in good standing with PSEAS for the purpose of and continuing to receive APG grant money.

Fall 2016 PSNES APG Grant Next Steps

The next steps for using the remaining funding balance of the 2016 APG grant (extended to June 2018) were discussed, with an emphasis in alumni regional events, one of the key items in the PSNES proposal for the approved grant. The following are highlights of that discussion. Many of the highlights are in question/response form.

- What alumni events could we host to connect alumni and also engage students? What is the ideal time for these events from both a student and alumni perspective?
 - o From student perspective, middle of Spring semester would be ideal – end of the semester gets stressful – just after Spring Break could be the best option
 - o Like the idea of engaging both alumni as well as students

- In conjunction with already planned COE Spring Career Fair in January – could we time an event then since a lot of alumni may be back? This is another “low stress” time for students
- What should we do?
 - Like the idea of the resume review
 - Is there an online or Skype version that we could do for this so we don't have to worry about members getting on-campus?
 - Pre-recorded webinars or videos of alumni giving advice to students?
- **ACTION** - Jeremy Barnhart lead, Emily Humes & Hilary Neal support – Define and prioritize opportunities to support a proposal to the Board at the next meeting.
- Still consider a table banner proposal to be purchased using the grant money.

Constitution Change Proposal

Doug Wood acknowledged the work last year on the Constitution proposed revisions related to succession if either the President or VP/President-elect resign. There are some other updates needed in the area of membership requirements, term limitations, and others that should be addressed before having the constitution changes voted on by the membership.

Confirmation of Plans for Activities Following the Meeting Today

The details of PSNES involvement in the following two activities in the Reber Building following this meeting were briefly confirmed:

- MNE New Student Orientation – James Tusar, Hilary Neal, and Duane Karchner are available to address the students on the PSNES Mentoring Program, social media resources, and the importance of networking with Penn State Nuclear Engineering alumni.
- PSNES Computer Studio Ribbon Cutting – Doug Wood will cut the ribbon for the new PSNES Computer Studio adjoining the Gursahaney E-Knowledge Commons on the Reber ground floor. The status of the friendraising/fundraising campaign for the PSNES Computer Studio naming opportunity was deferred.

New Business

PSNES Director and Officer Vacancies

Doug reported that there are two At-Large Director vacancies and one NucE Faculty position vacant on the Board of Directors. In addition, the office of Vice President/President-Elect has been vacant since the election since the candidate withdrew after agreeing to be nominated citing job responsibilities. PSNES is still looking for a viable candidate to fulfill the VP role. It is important that this person follow through on their duties so as to help stabilize the leadership team.

Two PSNES members in attendance stated interest in being considered to be appointed to the two At-Large Director vacancies.

- Jeremy Barnhart and Hamilton Gubanc both expressed interest in fulfilling these vacant roles
- Jeremy: Has been involved with PSNES for the past two years or so; Recent alumnus who has just entered the industry at Exelon's Limerick nuclear power station; Sees the value in staying in contact with alumni at Penn State and also giving back to the University; Is absolutely interested in staying involved in the university and would be honored to be a part of this organization.
- Hamilton: Has a two year window to see what is available to him before his next assignment in the Navy; Would like to help students realize that there are unconventional Nuclear employment opportunities available in the U.S. and the world
- Doug made a motion to appoint Jeremy and Hamilton to the currently vacant positions and the motion was passed by the Board. Their term time will be for the remainder of the current term lasting until August 2018. At that time, they may run for vacant Board or Officer positions.

2017-2018 PSNES Strategic Planning

This agenda item was deferred to the next board meeting due to time limitations.

2017-2018 Beecher-Loftus Leadership & Service in Nuclear Engineering Award Process Kickoff

Jim Tusar is chairing a group consisting of himself, Jeremy Barnhart, Mike Pantano, Matt Ellis, and John Atchison to participate in the nomination of candidates, assist in the selection of the winner, and monitor the award process for this upcoming year.

2017-2018 PSNES Outstanding Early Career Process Kickoff

The Outstanding Early Career Award will continue again this year. Its nomination form is on the PSNES website. Matt Ellis, Mike Pantano, Doug Wood, John Atchison, and Matt Wargon volunteered to be on the committee for this award this year.

MNE Department Update – Karen Thole

Karen joined the meeting and provided an update on the MNE Department. The following are highlights of her remarks:

- HVAC updates and E-Knowledge Commons construction work through the summer – great financial support from the alumni to help with this and were able to get the last large remaining gift needed to complete the E-Knowledge Commons
- Approved to hire two new NucE faculty – 30 applicants already on NucE + 4 more ME faculty – will be up to 60 faculty members -- Azaree Lintereur and Robert Zboray – T/H and Neutron Beams hired to the faculty
- Looking to build better research structure – have a lot of junior faculty and want to build a successful research program -- \$4.6M in DOE funding given to Penn State this Summer, nuclear has been doing well
- Enrollments have been pretty stable on the Nuclear side; On the ME side, 120 less engineering students coming in this year (360) due to restrictions imposed by PSU. This helps to the program to keep up and deliver from a quality perspective
- New degree (Additive Manufacturing) – set to start tomorrow
- Working to officiate the Nuclear Security Programs (Unlu's area) – Masters of Engineering option -- will be looking to hire a specific faculty spot for Nuclear Security, also interested in minorities and women for potential consideration
- Putting together a course on mechanical side (piloting this Fall), ½ credit course for the Juniors – and then ½ credit for Seniors to add up to 1 credit; Junior course focuses on how to write a good resume, research a company they're interested in, devise five year career plan, figure out what activities might help feed into the plan, business principles; find a mentor; Senior course focuses on revisiting 5 year plan, project management, ethics, etc. – could bring in guest speakers on certain topics and engage
- Doug Wood brought up idea of expanding faculty member position within PSNES board – Unlu has been fulfilling this role in a “dual hat” support, as he is also the RSEC Director.

NucE Program Update – Arthur Motta, NucE Program Chair

Arthur Motta provided an update on the status of the Nuclear Engineering Program. The following are highlights of his remarks:

- Reiterated the new faculty members joining the department
- Call for a need to reach out and connect with potential new faculty members – identification and vetting process is difficult, need to be proactive
- Thursdays at 4pm – looking for speakers from industry for NucE 590 Series speakers; focus is on technical topics -- Field Services & Plant Modifications speaker?
- Last year, PSU graduated 14% of NucE B.S. degrees in the U.S. (somewhere in the 80s in terms of B.S. count – Fall + Spring); Entering Junior class last year was 52, this year, it's 54 (includes double majors) – working to increase the number of double majors to compliment the NucE program
- Eric Marsh is leading a small student advising group to help with planning and scheduling to coordinate Mechanical and Nuclear programs – students have to declare their mechanical degree first, so then automatically get assigned a ME advisor; Emily mentioned if you know you're going into dual major, would be nice to choose which one they would like to emphasize so you can choose an advisor accordingly.
- How many students are in the “2.7 to 3.1” GPA gap? These students may find it more difficult to enter the workforce through traditional entry level positions.
- Part of Strategy Discussion - Mentioned how in the job fairs, many times will send a HR rep or someone who does not know the available options
 - How can PSNES help? Can we diversify our senior Capstone project?
 - Licensing, I&C, PRA, Field Services, Health Physics, Emergency Equipment, etc.
 - **ACTION for Arthur:** Arthur to share Capstone guidelines with committee regarding what is needed for these projects

RSEC Update – Kenan Unlu, RSEC Director

Kenan Unlu provided an update on the activities of the Radiation Science and Engineering Center (RSEC). The following are the highlights of his remarks:

- Right now, have 7 projects going on – three major ones (each over \$1M US);
 - One is changing the core moderator assembly as well as the beam tubes – beam tubes were not aligned since 1965. Older beam tubes being taken out and new ones put in to replace; This is a major undertaking, about \$1.4M DOE project. Everything is being put in place, and then next summer the construction will take place. Planned downtime is less than 2 months because everything is planned out in advance – will have 5 beam tubes, but one will have the cold neutron source which is a big deal – mostly only national labs have the cold neutron sources so this will be a very helpful and valuable tool. Will have 5 tubes and 7 experiment stations. The construction will be performed by an outside contractor.
 - 2nd project was recently awarded this summer – digital console which was built in 1992, but safety instrumentation was all analog. The digital console has never been licensed by the NRC – put a proposal into DOE for additional funding to change existing console as well as the safety system to be the first licensable research reactor console. (Jim Turso, PhD from Penn State has been pivotal in this, hired as an assistant Director for RSEC);
 - Third project is a joint project with Westinghouse and approved funding from DOE. Wireless transmitter development system is the primary project focus;
- New Associate Director for Operations, Dr. Jeffrey Geuther. PhD from RPI. He worked at Knolls Atomic Power Lab with years of experience. He came to Penn State from Kansas State University where he was the Nuclear Reactor Facilities Manager.
- Candace Davison has been promoted as Assistant Director for Education & Outreach.
- Has also hired maintenance manager and building coordinator.

Next Meeting Date and Time

Following a poll of the Board members in attendance, it was decided the next meeting will be a teleconference on Sunday, September 24, 2017 at 11 am. Doug Wood will obtain the dial-in numbers from the Program.

Roundtable

(News & PSNES Initiative/Project Suggestions)

PSEAS Update – Dale Hoffman, PSEAS President

Dale Hoffman shared information and insights from PSEAS, the COE organization under which PSNES Affiliate Program Group (APG) falls. The following are highlights of his remarks:

- PSEAS Annual Report recently issued
- Meeting with new Dean of Engineering, Justin Schwartz, 8/21/17 – his focus is on diversity and bringing more people into the engineering field – does have background in Nuclear Engineering, particularly in Materials
- Onsite meeting will be Friday, Sept. 8th with leadership breakfast at 7:30
- Report out through cognizant APG leads
- Sat, Sept 9th, PSEAS Tailgate at Medlar Field picnic deck from 11:30-2:30 with cash bar and silent auction and will also have a table where people are free to put out information
- Money raised goes to the PSEAS endowed scholarship fund (last year, raised about \$5800)
- Monday, Sept. 11th – COE resume review in Kunkle Lounge to prep for Fall Career days; Students have scheduled times slots, Kim Plumber is the primary point of contact – you can reach out to her for additional information or if you're interested in signing up to volunteer
- Fall Career Days – Sept 12-14, out at BJC from 11-4 each day; Tues = non-technical day; Wed = internship and co-op, Thurs = full career technical day
- APG Grant slots are currently out – will help for both new as well as existing
- EECS – Silicon Happy Valley Oct 23rd, free to the public
- 2018 – Engineering Career Fair will be on January 24th at the Nittany Lion Inn – solely for engineers, engineers get to meet with engineering companies
- THON happening on February 16-18, 2018
- Commencement on May 14, 2018 at the Bryce Jordan Center
- 12 APGs – PSEAS is one of the most active alumni groups at Penn State and appreciate PSNES's support in the organization
- PSEAS will be working on their strategic plan in the coming month – will share through the APG representatives when it's available to help provide some additional direction on three-year plan

- Dale Hoffman will be inducted as an Alumni Fellow on October 4, 2017.
- Erin Tench is new alumni liaison from the College of Engineering and also the event planner for COE – good point of contact for scheduling speakers and answering coordination-based questions
- PSEAS will be doing two expert panels in the Fall – one will be as part of classes to help undergrads get ready (how to create an effective resume), another will be in October focused on the rising juniors and the seniors (focused more on internships and employment)
 - ACTION – if anyone has interest in being a speaker or helping out on this, please reach out to Dale Hoffman and Pat Loftus
 - Hamilton Gubanc and Jeremy Barnhart volunteered; Duane Karchner is going to check his availability

Adrian Leandro, Student Chapter President - Alpha Nu Sigma Update

- Student honor society that is affiliated with ANS
- Receptive to having an ex-officio seat on our Board similar to ANS Student Chapter
- Points raised by PSNES board members during the discussion
 - Question raised on who/how we would like to include these interfacing organizations?
 - Need a constitution change? (yes, model after ANS Student Chapter)
 - We should leverage these pipelines for student involvement as much as possible
 - Each club should have a member here, attendees liked this idea and helps them to be more engaged and can share information down

Emily Humes – WIN Workshop Update

- President – Kerri Smalec; Katie Bench also helping to plan; Theme: Re-imagining NEW-clear; Panel for each of the selected topics; Speaker from the PA Nuclear Coalition; Schedule was emailed out to all PSNES Meeting attendees
- Some funding has been provided, but there will be a dinner for attendees and they need additional funding for that;
- Needs for the workshop: Speakers (both technical as well as political aspects), gift bag sponsorship, additional funding
 - **ACTION Hilary Neal:** As soon as possible, connect with Westinghouse WIN to see if anyone could support what is being requested – in terms of speakers, looking for Nuclear Power in PA, new nuclear, etc. – report back out to Emily and Katie Bench; Also check on ties with Beaver Valley contacts for potential speakers
 - **ACTION Doug Wood:** Reach out to Jim Tusar to see if he has any WIN contacts that could potentially support or help. [Completed 8/20/17. Jim agreed to be a speaker for the workshop.]

Joe Sholtis Suggestion – member employer skills matrix

Joe Sholtis suggested that a matrix providing company, expertise area, etc. be developed so this information is in one place to help with identification of mentors with certain skills and specialties.

Upcoming Events, Meetings, and Deadlines (from meeting Agenda)

- 8/20/2017: NucE New Student Orientation (3:00 – 3:30pm), MNE E-Knowledge Commons PSNES Computer Studio Ribbon Cutting (3:30 – 4:00pm), & MNE Ice Cream Social at Foundary Park immediately following
- 9/8/2017: PSEAS Board Meeting at PSU
- 9/9/2017 COE Alumni Tailgate
- 10/30 (tentative) Joint Nuclear Engineering Program Reception at ANS Winter Meeting – Marriott Wardman Park, Wash DC (PSNES regional event) [date subsequently confirmed]
- 4Q2017 PSNES BOD Meeting via telecon (TBD)
- February 2018: PSEAS Board Meeting at PSU

Adjournment

Adjourn

The meeting was adjourned at 2:10 pm.

PSNES Volunteer Commitment Table (Input for PSNES Affiliate Program Group Annual Report)

The following table was developed after the meeting for the purpose of summarizing the number of alumni engaged in the various PSNES activities. This information will be needed at the end of the year for the Annual Report; this table is intended to capture the information as activities happen or are completed throughout the year (ending June).

Activity/Event Name	Date	# Alumni Participating	Notes
PSEAS Alumni Tailgate	9/9/2017	2	On-Campus: Doug Wood, Hamilton Gubanc
College of Engineering Resume Review	9/11/2017	1	On-Campus: Hamilton Gubanc
PSEAS Alumni Expert Panel Speaker Candidates (Fall 2017)	10/17/2017 (Job offer/Evaluation) TBD - Fall Classes (resume)	3 +Candidates identified to Jane Clampitt	On-Campus -Jeremy Barnhart, Hamilton Gubanc, Duane Karchner. Tusar also invited to consider.
WIN Regional Conference Speaker Candidates	9/22/2017		On-Campus: Duane Karchner, Jim Tusar, Hilary Neal to identify candidates or Company WIN contacts.
Beecher-Loftus Leadership & Service Award Selection Committee (Adhoc)	Fall 2017 - Selection March 2018 - MNE Banquet Recognition	5	Selection Committee: Jim Tusar, Jeremy Barnhart, Michael Pantano, Matt Ellis
PSNES Early Career Award Committee (Adhoc)	Fall 2017 - Nomination/Selection. March 2018 - MNE Banquet Recognition	5	Nomination/Selection Committee: Matt Wargon, John Atchison, Doug Wood, Michael Pantano, Matt Ellis
PSNES Constitution Committee (Adhoc)	December 2017	3	Doug Wood, Rick Etling, Pat Loftus to bring proposal for Board consideration
PSNES Support for Multi-Organization Reception @ ANS Winter Meeting Venue	10/30/2017 (placeholder date)		
NucE 590 Speakers	Fall/Spring Semester (Thursdays @ 4 PM)		On-campus. Hilary Neal exploring speakers on Field Services. Duane Karchner exploring speakers for plant outages, plant equipment operators & modifications
ME Pilot Fall/Spring Speakers	Juniors - Fall Seniors - Spring		On-Campus. Juniors - Resume, Company Research, 5-year career plan and actions, business principles. Seniors - 5-year plan revisit, project management ethics, etc. (Leverage ENGR 501?)
Capstone Design Project Candidates (Company/Member)			Arthur Motta to share capstone guidelines. Member Companies may propose projects that highlight diverse roles of NucEs - licensing, I&C PRA, Field Services, Health Physics, Emergency Planning
PSEAS Board (PSNES APG & Marketing Team)	Monthly Telecons & 3 F2F Meetings/Year	2	Pat Loftus, Doug Wood