

**American Nuclear Society – Thermal Hydraulics Division**

**Executive Committee Meeting**

**ANS Winter Meeting 2021**

4:30-6:30 pm US Eastern time, Sunday November 28, 2021

*Held Virtually*

**Attendees (EC Members):** Elia Merzari (PSU), Bao Wen Yang (DEQD, Delta Energy Group), Annalisa Manera (UM/ETHZ), Igor Bolotnov (NCSU), Lane Carasik (VCU), Yassin Hassan (TAMU), Robert Martin (BWXT), Yang Liu (VTU), Hisashi Ninokata (PoliMi), Piyush Sabharwall (INL), X. Sun (UM), Dillon Shaver (ANL), Dave Pointer (absent), Prof. Choi (absent), Musa Moussaoui (absent), Fatih Aydogan (absent), John Luxat (absent), Caleb Brooks (absent), Hyoung Kyu Cho (absent)

**Attendees (Other):** Mani Grandhi (TAMU), Subash Sharma (UML), Shanbin Shi (RPI), Trevor Howard (Oregon State), Maria Abramova (NCSU), Marylin Delgado (BWXT), Matt Zimmer (NCSU), Jun Liao (WEC), Shripad Revankar (Purdue Univ), Jun Wang (UW), Jovica Riznic, Fan-Bill Cheung (PSU)

**Proxies:** None

**1. Opening**

Dr. Merzari opened the meeting. Roll call and quorum met.

**2. Approval of meeting agenda**

A DRAFT agenda was provided for approval (see **ATTACHMENT A**)

MOTION: Piyush Sabharwal moved to approve the agenda

SECOND: B. Martin.

NO DISCUSSION

11 votes in favor.

Agenda is APPROVED.

**3. Approval of minutes from 2021 ANS Annual Meeting**

The DRAFT minutes of the 2021 ANS Annual Meeting have been provided for review and approval (see **ATTACHMENT B**).

Proposed changes to the minutes:

- Steven Arndt should be listed as ORNL

MOTION: X. Sun motioned to approve the minutes

SECOND: D. Shaver.

10 votes in favor.

Minutes are APPROVED with proposed changes.

**4. Message from President Elect**

Steve Arndt reported at the meeting. Several changes are taking place. ANS is selling the building in Chicago and moving the headquarters to a different building, the IT organization is being updated to better

keep track of memberships, among other changes. ANS is looking into post-covid strategies for holding meetings, and at ways to improve communication structure. Other news included updates on the publication strategy, such as the implementation of decrease/elimination of page charges for proceedings and transactions; not yet clear when the decision will be finalized.

The ANS president is in the process of formulating goals for the new year, which starts in June 2022. The plan is to improve diversity in the society, have more cross pollination across divisions (TH, reactor physics, medical physics, etc.), look at small scale topical meetings (PRA and Human factors are doing that already), try to continue to have an impact in Washington, look at non traditional stakeholder (i.e. medical applications) to improve ANS memberships.

#### OPEN DISCUSSION

QUESTION: Dr. Hassan asked if moving the location of the headquarter will contribute to save money.  
ANSWER: Steve Arndt replied that the moving is considered a win-win. ANS is getting a good return in investment with the sale, and the same time the new headquarter will be closer to downtown. Renting the space should be cheaper with respect to the upkeeping of the older headquarters building.

QUESTION: Dr. Hassan asked if ANS is looking at other applications, such as in the medical field and potential connections to other societies.

ANSWER: The incoming president replied that he is planning to reach out selectively to other societies ANS has already worked with in the past, and have collaborations in the standard areas (ASME), some areas in quality assurance (American society for quality). S. Arndt plans to be more proactive with some of the medical societies. Not sure everything can be done in 1-2 years, but the plan is to start improving ANS memberships and impact.

QUESTION: Dr. Hassan agreed that joint meetings with other societies are a good idea. There are a lot of meetings being organized, but it is difficult to have fundings to attend all those meetings.

ANSWER: The incoming president believes however that joint meeting across societies are difficult to organize, as every society has their own rules, financial issues, etc. ANS has tried to have jointed topical meetings with IEEE without success. However, efforts in that direction will continue.

### **5. Action items from 2021 ANS Annual Meeting**

#### **Update on strategy and succession plans**

Discussion led by Dr. Merzari. He explained that the last formal plan was carried out in 2011 followed by a small update in 2016. Therefore, he had taken the old document and restructured it, incorporating ideas originated during a previous discussion with Bao Wen Yang. The revised document is just a first draft meant to start the revision process.

The mission remains the same, as already reported on the website, however Dr. Merzari defines a set of goals and corresponding metrics.

#### Proposed goals

- maintain high quality topical meetings
- develop technical exchange programs

- innovate communication approach, thinking of younger generations
- increase membership
- invest in younger generations, to establish pipeline for leadership of the division (it is noted that in the last 2 years a decrease in membership has been observed, in particular from outside the US)

Proposed metrics corresponding to the goals (note that a set of metrics exists already, however they are not being tracked)

- track program activity (number of papers in the last topical meetings and 4 ANS national meetings)
- track program quality: number of papers which end up in special issues
- total memberships
- improved communication (harder to evaluate. Regular surveys should be held)
- Student and young member participation:
- total numbers of members from foreigner countries

In addition:

- one-year THD tactical plan should be prepared every year by the outgoing chair
- THD Five-year strategic plan should be prepared for 2022-2027
- Other ideas include:
- more direct involvement of EC members. In the EC, not every member has a specific portfolio. Merzari proposes to give each EC member a specific outreach activity to draw more active members to the division: e.g. assign to EC industry members the task to do outreach to industry, same for international members. Activities can include joint webinars, or other activity to foster collaborations. The first webinar was very successful.
- increase the number of student members that are part of EC activities. Leverage students for articles on newsletters, webinar, etc., activities that increases visibility and participation of young members.
- reach out to engineering departments to advertise THD and attract students to this field
- advertise TH scholarship broadly
- develop a social media presence. Social media is how the younger generation communicate. ANS has a social media presence and they seem to be willing to help THD establish its own social media presence.
- support ANS student conference with at least one EC member participating.
- support young member group
- develop fund raising to fund activities that are strategic to the division

OPEN DISCUSSION

QUESTION: Dr. Hassan asked why the membership dropped from 1200 to 971, while the number of papers being submitted increase?

ANSWER: Dr. Merzari replied that a potential reason to explain the recent trends is the lack of in-person meetings in the last 2 years. The value of being a member of the division has decreased because of the lack of meeting (i.e. no incentive to be a member). Also, with regards to the communication strategy with

the younger generation, THD is out of touch and therefore we lose a lot of the students that way. Dr. Baowen Yang agrees with Dr. Merzari. WE are missing incentive. What is the difference between being a member or not when participating to a meeting.

QUESTION: Dr. Hassan asked what are other divisions doing and whether they are observing similar trends with decreasing membership

ANSWER: President Arndt replied that similar issues are being faced in some divisions, but not all. The overall ANS memberships have gone down, but not as much as TH. For some people the meetings are very important, for others publications are more important.

Dr. Merzari reflected that solutions are needed. Dr. Hassan pointed out that THD has a lot of international members, which is unique to our division. Dr. Merzari mentioned that 15% of the THD members are international.

Dr. Hassan mentioned that we should compare with other divisions. In addition, we need to encourage TH in education, at the same time ensuring good quality of teaching. It is Dr. Hassan's opinion that the quality of education in TH has gone down over the years.

Bao Wen Yang agreed that webinars are a very good initiative and proposed to involve international members as well for a broader outreach.

Jun Wang mentioned that Asia is not included in the ANS marketing material, and therefore we are missing out on Asians' memberships.

Dr. Carasik pointed out that THD does not have clear strategies to encourage the participation of young people, and that THD does not do a good job in encouraging the participation of new members in EC/PC meetings. The division is not actively thinking of strategy to engage new younger members.

Dr. Sun raised the concern about declining students' memberships. From the 2016 newsletter report, out of 1239 THD members, 26% were students. In the last 5 years, students' memberships have dropped from 321 to 125 (200 students lost within 5 years).

Dr. Merzari acknowledged the perception among students and young members that THD is not welcoming. This needs to be addressed, with a clear timeline.

QUESTION: Dr. Merzari asks R. Martin about his opinion as past chair of the division and industry member.

ANSWER: R. Martin replied that metrics are definitively important to benchmark against, but one should not over analyze the situation. Prior to covid THD memberships were on a good trajectory. Now things have changed. In addition, young people expect a certain energy coming out from the organization (social media) and unique value for their membership. According to R. Martin, THD should select a few fronts to work on (social media presence, linked-in groups which are private to members, etc.). The webinar was very good and there is a need to bring more of these activities that can make young members excited. Lastly, R. Martin mentioned that one of the reasons why young members might find our meetings intimidating is due to the large participations (about 50 people), which makes for a harder competition to actively participating in the meeting.

QUESTION: Dr. Merzari asked Marilyn Delgado about her opinion, being her a young member, and THD webmaster.

ANSWER: M. Delgado answered that the THD meeting is large but attended by few students. This feels intimidating to a lot of students. Our meetings are crowded and loud, and there is not a lot of information that students can grab. After the webinar, several students connected with M. Delgado on LinkedIn, etc., therefore webinars work well. Social media is necessary, and in general spaces where students can communicate technical information.

QUESTION: Dr. Merzari agreed with Dr. Hassan about the fact that the main driver should be excellence. However, he wondered how we can promote that. In the past we had focused on publications and meetings. Now the division should think of other ways to reach out to young professionals.

Dr. Sabharwall proposed to think about joined sessions in areas in which we are not fully expert, like ML/AI.

Merzari ended the discussion by asking all members to review the draft document of the strategic planning and provide comments **January 31 (ACTION)**.

#### **Formation of membership committee**

Dr. Merzari moved to the next agenda item, stating that Matt Zimmer, formation of membership committee chair, has launched an Instagram page for THD.

Matt Zimmer summarized his progress with the Instagram chair. Dr. Merzari followed with a proposal for a student picture competition on Instagram, including a monetary prize and a certificate. A formal approval is however needed.

MOTION: Bao Wen Yang moved to allocate \$3000 in the general 2022 budget for the membership committee, with the aim of promote memberships as they see fit.

SECOND: A. Manera

#### **DISCUSSION**

R. Martin disagreed with the motion. \$3000 is a rather large amount, especially without discussing the rest of the budget. There are bylaws that needs to be followed and they are there to prevent quick decisions.

Dr. Merzari agreed that \$3000 as a blank check is unprecedented for THD. He proposed to table the motion and reintroduce it at a later time.

MOTION: Dr. Manera motioned “to publish on Instagram a student TH picture competition. Winner will receive a \$100 prize and a certificate”.

SECOND: Dr. Shaver

NO DISCUSSION

11 votes in favor. Motion is APPROVED.

## **6. Chair report**

### **Student conference**

Dr. Merzari reported about the student conference (Apr 14 – 16, 2022; to be held in person at Urbana Champaign). A paper award is foreseen. EC members were asked to contact

[ansstudentconference@ilinois.edu](mailto:ansstudentconference@ilinois.edu) to volunteer as judges/reviewers. Dr. Carasik will attend the conference. Dr. Merzari will keep in touch with Carasik (**ACTION**).

In addition, the students are revamping the collaborate platform and are looking for volunteers for the focus group by **Jan 31**. Marilyn Delgado declared to be interested.

Dr. Merzari then reported that ANS is planning to eliminate the page charges for journals. This is going to get voted at the board meeting.

Dr. Sun mentioned that he is part of the publication steering committee. The technical journal committee has proposed to remove page charges for the journals. The board of directors will vote on this on Dec 4. Potential plans include removing page charges also for transactions and proceedings. These are going to be considered at a later stage.

Dr. Merzari talked about the large effort overtaken by ANS to modernize their IT infrastructure. In addition, the society financial situation has improved due to a small business loan that was forgiven, and the selling of property. Other challenges with lack of in-person meetings.

Dr. Merzari reported then about the experience with the first webinar. He thanked M. Delgado and Dr. Carasik for moderating the webinar. The EC agreed that webinars should be repeated every 6 months.

Proposals for future webinar potential topics:

- Dr. Merzari: TH issues of advanced reactors
- Dr. Carasik: student webinars aimed at improving IT skills, for example how to use a terminal. Merzari mentioned that the M&C division has already done some of that.
- Dr. Manera: repetition of the IAEA seminar (selection of lectures) that was held in September 2021. Dr. Merzari and Dr. Carsik supported the idea (introduction course sequence on CFD for NPPs). This was supported by both Dr. Merzari and Dr. Carasik.
- Dr. Merzari: heat pipes, inviting also Bob Reid. Jun Liao (WEC) supported the ideas and volunteered with organizing the webinar on this topic.

## **6. Treasurer's report**

Dr. Bolotnov presented the budget. This year stock market was rather good. THD could afford to fund two TAA awards in 2021. An award was paid out of the Hochreiter scholarship account in 2020. The Seghal's award just launched and it will be awarded for the first time at next NURETH conference. The plan is to award it every other year. The Esposito award has been funded at a level of \$75,000.

## **7. Technical Program committee**

Dr. Bolotnov presented the report from the technical program committee. Dr. Shaver provided an update on the ANS meeting, while Dr. Roelofs gave update on the upcoming NURETH-19 conference.

Dr. Bajorek provided an update on the NURETH-20 conference, to be held in Washington DC.

A short discussion on the ATH conference followed. The deadline for submission is set for Jan 3, 2022 with no possibility for a deadline extension.

## **8. Membership committee report**

Nothing to add by committee chair Matt Zimmer.

### **9. Division website report**

Marylin Delgado passed the role of webmaster to Dr. Trevor Howard (assistant prof at OSU). Dr. Howard has past experience with building websites. The THD website has already been updated before the meeting. Dr. Howard asked the EC committees to provide comments or suggestions for additions/changes. He can be contacted at [trevor.howard@oregonstate.edu](mailto:trevor.howard@oregonstate.edu).

Matt Zimmer asked to add the social link to the webpage.

### **10. Honors and award committee**

Sun provided an award on the committee. Members of the committee are K. Muftuoglu (vice-chair), D. Pointer, C.-H. Song, W. Marcum, Y. Hassan, H. Ninokata, and x. Sun (chair)

Prof. Francesco D'Auria and Dr. Chul-Hwa Song (KAERI) have been selected unanimously for the TAA award. Their lecture will be held at the ATH'22 conference. The award comes with a monetary prize of \$2000. Dr. Song donated his prize to the Esposito scholarship fund. The award ceremony will be also broadcasted online.

For the Bal-Raj Seghal Memorial Award Dr. Elia Merzari was unanimously selected as the first recipient. The corresponding presentation will take place at next NURETH conference, where Dr. Merzari will hold a keynote lecture. Prof. Kim has informed Seghal's family about the recipient's selection.

NURETH fellows: the committee is running behind schedule. The selection should be completed in the next couple of weeks.

Best paper award: 3-5 papers from NURETH-19 are expected be nominated for the best paper award

THD meritorious service award: nominations are being accepted, deadline is **March 1, 2022**.

Excellence review award: nominations are to be submitted to Dr. Bolotnov by **March 1, 2022**.

QUESTION: Dr. Bolotnov asked whether for the excellence review award, the honors and award committee is expecting a single nomination or a list of potential candidates/

ANSWER: Dr. Sun replied that one nomination is sufficient, with possibly a second one for honorary mention. The committee requires half a page describing the contributions of the nominee.

### **12. Scholarship committee report**

Dr. Pointer is absent, therefore a summary was presented by Dr. Merzari. Two scholarships are available, namely the Hochreiter and Esposito fellowships. The website is already open for applications and the deadline is set to **Feb 1, 2022**. Additional information is available in the newsletter.

### **13. Conferences Screening committee report**

Prof. Cheung reported that the division is behind schedule with conferences because of Covid. There were delays in sending out the call for proposals for NURETH-20, however the selection process has been completed. Dr. Bajorek has already started with the organization. The call for proposals for the NURETH-21 (in 2025) is going to be sent out in late 2022.

#### **14. Nominating Committee Report**

The nominating committee report is already published in the newsletter. No further discussion was needed.

#### **15. Old business**

No old business to discuss.

No new business to discuss.

MOTION: Dr. Sun motioned to adjourn.

SECOND: R. Martin.

MOTION CARRIES UNANIMOUSLY.



**APPENDIX A.**

**AGENDA**

American Nuclear Society – Thermal Hydraulics Division  
Executive Committee Meeting  
4:30-6:30 pm US Eastern time, Sunday November 28, 2021  
Zoom link: <https://psu.zoom.us/j/91364535353>  
Password: ANSTHD2021

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|-----------------------------------------------------|---------|
| 1. Opening                                          | Merzari |
| 2. Approval of Meeting Agenda                       | All     |
| 3. Approval of Minutes from 2021 ANS Annual Meeting | All     |
| 4. Message from President-Elect                     | Arndt   |
| 5. Action Items from 2021 ANS Annual meeting        |         |
| a. Provide update on strategy and succession plans  | Merzari |
| b. Formation of Membership Committee                | Marcum  |

6. Chair Report	
a. Updates from HQ	Merzari
b. Webinars	Merzari
7. Treasurer's Report	Bolotnov
8. Program Committee Report	
a. THD Sessions for 2021 ANS Winter Meeting	Bolotnov/Shaver
b. THD Planning for 2022 ANS Winter Meeting	Bolotnov/Shaver
c. NURETH-19 Update	Roelofs
d. ATH'2022 Embedded Topical meeting update	Sun/Pointer
e. NUTHOS-13 Update	Sun/Yang
f. NURETH-20 Update	Bajorek
9. Membership Committee Report	Zimmer
10. Division Website Report	Howard/Delgado
11. Honors and Awards Committee Report	Sun/Muftuoglu
12. Scholarship Committee Report	Pointer
13. Conference Screening Committee Report	Cheung
14. Nominating Committee Report	Marcum
15. Old Business	All

**APPENDIX B**

Minutes are available at:

<https://thd.ans.org/committees/executive-committee/>