Executive Committee Meeting Minutes
American Nuclear Society – Thermal Hydraulics Division
Executive Committee Meeting
Hilton Orlando Bonnet Creek, Orlando, FL
4:30 – 6:00 PM, Sunday November 11, 2018

Attendees:

Dave Pointer (Chair), Chul-Hwa Song (Vice Chair), Wade Marcum (Secretary), Elia Merzari (Treasurer), Lane Carasik (Member), Fan-Bill Cheung (Member), Young Hoon Jeong (Member), Yang Liu (Member), John Luxat (Member), Annalisa Manera (Member), Hisashi Ninokata (Member), Piyush Sabharwall (Member), Dillon Shaver (Member), Xiaodong Sun (Member) Bao-Wen Yang (Member), Matthew Zimmer (Member), Robert Martin, Brian Woods, Jong Kim, Jinyong Feng, Maria Avramova, Xu Cheng, Igor Bolotnov, Si Young Lee, Jun Liao, Tracy Radel

Yassin Hassan proxy given to Elia Merzari
Fatih Aydogan proxy given to Dave Pointer

A scanned copy of the list of attendees is provided in Appendix A.

1. **Opening** (Pointer)

Dr. Dave Pointer opened the meeting at 4:30 pm.

Informal introductions were done by all those present at the EC Meeting.

2. **Approval of Meeting Agenda** (All)

MOTION: to approve agenda (Elia Merzari)
SECOND: (John Luxat)
VOTE: No opposed
MOTION APPROVED

A scanned copy of the meeting agenda is provided in Appendix B.

3. **Approval of Minutes from 2018 Annual Meeting** (All)

MOTION: to approve (John Luxat)
SECOND: (Elia Merzari)
VOTE: No opposed
MOTION APPROVED

4. **Action Items from 2018 Annual Meeting**
   a. **Re-Start Service Award** (Pointer)

   Dr. Pointer spoke about the motion that was moved to research the effort to restart the service award and that he reached out to the honors and award committee. They
recommended that the THD come back to them at this meeting. Unfortunately the honors and awards committee meeting occurs during the opening plenary session.

**ACTION ITEM:** Elia Merzari to prepare service award proposal.

5. **Treasurer’s Report** (Merzari)
   a. **Proposal for THD scholarship**

   Treasure report was circulated to all and posted to collaborate (refer to Appendix C). It was noted that a very large contribution was made by NURTH-17 to the division which places the division in a very healthy state.

   Dr. Merzari noted that two motions were passed at the 2018 Annual Meeting which were not able to be carried out as a result of changes in circumstances. A proposal has been made in the treasure report to establish a new scholarship by the THD (refer to APPENDIX D).

   Dr. Bob Martin acknowledged that the proposal as written didn’t include a name on the scholarship. It was recommended that Laurence E. Hochreiter be the named scholarship.

   It was noted that the ANS Honors and Awards committee will be engaged in the selection process of the division-level scholarship per ANS bylaw.

   **MOTION:** to put forth the proposal of a new Scholarship by the THD as amended to include the name “Laurence E. Hochreiter” (Dillon Shaver)
   **SECOND:** (Lane Carasik)
   **VOTE:** No opposed
   **MOTION APPROVED**

   The budget within the Treasurer’s report was reviewed by the committee. Dr. Merzari confirmed that the budget is aligned with the 2018 budget with the exception of the funds moved to support the scholarship proposal.

   **MOTION:** to approve the 2019 budget (Lane Carasik)
   **SECOND:** (John Luxat)
   **VOTE:** No opposed
   **MOTION APPROVED**

   **ACTION ITEM:** Elia Merzari to develop 2020 budget before the next meeting.

6. **Program Committee Report** (Merzari)
   a. **2018 ANS Winter Meeting & ATH Meeting** (Merzari)

      Refer to Program Committee Meeting Minutes.

   b. **Planning for Future 2019 Winter Meeting in Washington DC** (Merzari/Bolotnov)

      Refer to program committee report.
c. **NUTHOS-12 Recap** (Sun)

Refer to Program Committee Meeting Minutes.

d. **NURETH-18 Update** (Woods/Marcum)

Refer to Program Committee Meeting Minutes.

e. **NUTHOS-13 Update** (Luxat)

Refer to Program Committee Meeting Minutes.

f. **ATH’20** (Merzari)

MOTION: Motion carried forward from PC meeting for 2019 Winter Meeting technical sessions as detailed within the PC Meeting Minutes.
SECOND: No second needed
VOTE: No oppose
MOTION APPROVED

MOTION: Motion carried forward from PC Meeting to approve the proposal for ATH20 to be hosted in Europe as detailed within the PC Meeting Minutes.
SECOND: No second needed

DISCUSSION: Prof. Annalisa Manera noted that it’s better to hold it than cancel it.

Prof. Fan-Bill Cheung acknowledged that it’s important to grow thermal hydraulics beyond NUTHOS and NURETH with ATH to possibly an international meeting. However, it’s important that we move forward ensuring that we not engage NURTH meetings in the future.

Dr. John Kelly was briefly present and acknowledged that the possible co-location of topical meetings is strongly encouraged by headquarters if feasible.

Prof. Xiaodong Sun acknowledged that NURTH-19 may result in multiple proposals which may impact the date held for the ATH conference.

Prof. Maria Avramova acknowledged that BEPU conference will be in May 2020 in Italy

Motion as stated above was reiterated

VOTE: No opposed
MOTION APPROVED

g. **NURETH-19** (Merzari)
Dr. Merzari reiterated as the Chair of the Program Committee its urging of to the EC to execute the call for proposals for NURTH-19.

The EC chair acknowledged its assignment from the previous meeting (2018 Annual Meeting) to the Selection committee for NURTH-19.

Dr. John Kelly briefly stepped in to the conversation to provide the President’s thoughts to the Committee. He noted the president’s special committee to develop processes in urging simplicity in licensing and advancement of technology development. The committee is attempting to maintain a modest size, but may solicit technical experts as needed. It was also noted that a new ‘Discovery Education’ Program was developed to support k-12 education on nuclear technology. There presently exists a 120K USD deficit as a result of this establishment and was requested that Divisions provide donations to support this effort as feasible.

h. **Special Issues Journals** (Merzari)

Refer to program committee report.

i. **Motions from the PC Meeting** (Merzari)

Refer to program committee report.

7. **Membership Committee Report** (Schubring)

Dr. Dave Pointer acknowledged that the newsletter will be available and provide this information.

8. **Division Website Report** (Shaver)

Dr. Dillon Shaver stated that the contacts list has been removed from the website and NURETH has been added.

9. **Honors and Awards Committee Report** (Sun/Lee)

At the 2018 ANS Annual Meeting the THD decided to form a special committee for the TAA selection (Prof. Xiaodong Sun was asked to chair this special committee). Two packages were received for the 2017 TAA nomination. After deliberation it was determined that Dr. See Young Lee was awarded the TAA.

Dr. Si Young Lee acknowledged that the H&A committee received one applicant for the 2018 TAA. For this reason the H&A has decided to hold this application and delay review until 2019.

Prof. Fan-Bill Cheung acknowledged that there should be a rule in-place that establishes a limit on the number of times a package may be considered.

**ACTION ITEM:** Dr. Si Young Lee to draft a proposal that considers the limit on packages for the TAA to be resubmitted and coordinate this effort with the H&A committee.
**ACTION ITEM:** H&A Committee to nominate NURETH fellows for the NURETH-18 and bring for confirmation to the 2019 Annual Meeting.

10. **Nominating Committee** (Muftuoglu)

Chair: Chul-Hwa Song  
KAERI
Vice Chair: Wade Marcum  
Oregon State University
Secretary: Elia Merzari  
Argonne National Laboratory
Treasure: Bao-Wen Yang  
Xian Jiaotong University

**Executive committee** (Terms Ending)
Fatih Aydogan
Lane Carasik
Yassin Hassan
Dave Pointer
Bao-Wen Yang

**Executive Committee Nominees**
Fatih Aydogan
Lane Carasik
Yassin Hassan
Igor Bolotnov
Robert Martin

Chair requests a vote of Endorsement
No opposed
ROSTER APPROVED

**Program Committee**
Chair  
Igor Bolotnov
Vice Chair  
Dillon Shaver

11. **Report from Professional Divisions Workshop** (Pointer)

An updated from Dr. Pointer on the professional division workshop was provided. He noted that future meetings will change the structure of these division workshops to focus on best-practices associated with executive members through breakout sessions rather than the traditional format that has been utilized for this workshop in the past.

12. **Report from President’s Meeting with Division Chairs** (Pointer)

Dr. Pointer addressed the division with an update from his meeting with the President. The Society finds itself in a dire state. The Society continues to find a 10% deficit in revenue and struggling to find a way to reduce spend-plan. An effort is underway to attempt to reduce the Society’s annual budget from 11M to 9.5M. At present the Society will not be solvent in 2025 if it continues to maintain the present spend-versus-income rate.

A challenge issued by the President was to identify how we view our society and be creative.
13. **Old Business (All)**

None.

14. **New Business (All)**

   **MOTION:** to add 500 USD to the budget to support spending allocated to the ANS Student conference in addition to the expenditures detailed within the 2018 budget approved by the EC (Lane Carasik).

   **SECOND:** (Xiaodong Sun)
   **VOTE:** No opposed
   **MOTION APPROVED**

15. **Adjourn (Pointer)**

   **MOTION:** to adjourn (Dillon Shaver)
   **SECOND:** (Piyush Sabharwall)
   **VOTE:** No opposed
   **MOTION APPROVED**

   Meeting adjourn at 6:11 pm.
# APPENDIX A

Executive Committee Meeting List of Attendees

<table>
<thead>
<tr>
<th>Name</th>
<th>Initial when present</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Pointer, Chair</td>
<td>DP</td>
</tr>
<tr>
<td>Chul-Hwa Song, Vice Chair</td>
<td></td>
</tr>
<tr>
<td>Wade Marcum, Secretary</td>
<td>Wm</td>
</tr>
<tr>
<td>Elia Merzari, Treasurer</td>
<td>E</td>
</tr>
<tr>
<td>Kurshad Muffougha, Immediate Past Chair</td>
<td></td>
</tr>
<tr>
<td>John Kelly, Board Liaison</td>
<td></td>
</tr>
<tr>
<td>Fatih Aydogan</td>
<td>F.A</td>
</tr>
<tr>
<td>Lane Carasik</td>
<td>L.</td>
</tr>
<tr>
<td>Fan-Bill Cheung</td>
<td>FBC</td>
</tr>
<tr>
<td>Yassin Hassan</td>
<td></td>
</tr>
<tr>
<td>Young Hoon Jeong</td>
<td>Y.</td>
</tr>
<tr>
<td>Yang Liu</td>
<td></td>
</tr>
<tr>
<td>John Luxat</td>
<td>J.</td>
</tr>
<tr>
<td>Annalisa Manera</td>
<td>A.</td>
</tr>
<tr>
<td>Hisashi Ninokata</td>
<td></td>
</tr>
<tr>
<td>Piyush Sabharwall</td>
<td>P.S</td>
</tr>
<tr>
<td>Dillon Shaver</td>
<td>D.</td>
</tr>
<tr>
<td>Xiaodong Sun</td>
<td>X.</td>
</tr>
<tr>
<td>Bao-Wen Yang</td>
<td>B.</td>
</tr>
<tr>
<td>Matthew Zimmer</td>
<td>M.</td>
</tr>
</tbody>
</table>

**Others, please PRINT in** (If there is not enough space, feel free to use the other side)

<table>
<thead>
<tr>
<th>Name</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Martin</td>
<td><a href="mailto:rmartin@wustl.com">rmartin@wustl.com</a></td>
</tr>
<tr>
<td>Brian Harris</td>
<td><a href="mailto:brian.harris@oregonstate.edu">brian.harris@oregonstate.edu</a></td>
</tr>
<tr>
<td>Jong Kim</td>
<td><a href="mailto:kimj@kaist.ac.kr">kimj@kaist.ac.kr</a></td>
</tr>
</tbody>
</table>

Article B10.2 - A quorum for the transaction of business at all Division (or TG) meetings shall consist of fifteen (15) qualified voters or twenty (20) percent of the qualified voters.
**Thermal Hydraulics Division**  
**Executive Committee Meeting**  
**Hilton Orlando Bonnet Creek Hotel**  
**Orlando, FL**  
**November 2018**

Others, please PRINT in

<table>
<thead>
<tr>
<th>Name</th>
<th>E-mail</th>
</tr>
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<tbody>
<tr>
<td>Jinyong Feng</td>
<td><a href="mailto:jinrongf@mit.edu">jinrongf@mit.edu</a>.</td>
</tr>
<tr>
<td>Hania Avramova</td>
<td><a href="mailto:mnavrom@ncsu.edu">mnavrom@ncsu.edu</a>.</td>
</tr>
<tr>
<td>Xu Cheng</td>
<td><a href="mailto:zhecheng@kent.edu">zhecheng@kent.edu</a>.</td>
</tr>
<tr>
<td>Igor Balinov</td>
<td><a href="mailto:iabolin@kcei.edu">iabolin@kcei.edu</a>.</td>
</tr>
<tr>
<td>Si Young Lee</td>
<td>si <a href="mailto:lee@exnpln.doe.gov">lee@exnpln.doe.gov</a></td>
</tr>
<tr>
<td>Jun Liao</td>
<td><a href="mailto:liaoj@weddng.com">liaoj@weddng.com</a>.</td>
</tr>
<tr>
<td>Tracy Radel</td>
<td><a href="mailto:tracy.radel@shinemd.com">tracy.radel@shinemd.com</a></td>
</tr>
</tbody>
</table>

Article B10.2 - A quorum for the transaction of business at all Division (or TG) meetings shall consist of fifteen (15) qualified voters or twenty (20) percent of the qualified voters.
APPENDIX B
Draft EC Meeting Agenda (Proposed)

PROPOSED AGENDA
American Nuclear Society – Thermal Hydraulics Division
Executive Committee Meeting
Hilton Orlando Bonnet Creek, Orlando, FL
4:30 – 6:00 PM, Sunday November 11, 2018

1. Opening (Pointer)

2. Approval of Meeting Agenda (All)

3. Approval of Minutes from 2017 Winter Meeting (All)

4. Action Items from 2018 Annual Meeting
   a. Re-Start Service Award (Pointer)

5. Report from Professional Divisions Workshop (Pointer)

6. Report from President’s Meeting with Division Chairs (Pointer)

7. Treasurer’s Report (Merzari)
   a. Proposal for THD scholarship

8. Program Committee Report (Merzari)
   a. 2018 ANS Winter Meeting & AHT Meeting (Merzari)
   b. Planning for Future 2019 Winter Meeting in Washington DC (Merzari/Bolotnov)
   c. NUTHOS-12 Recap (Sun)
   d. NURETH-18 Update (Woods/Marcum)
   e. NUTHOS-13 Update (Luxat)
   f. ATH’20 (Merzari)
   g. NURETH-19 (Merzari)
   h. Special Issues Journals (Merzari)
   i. Motions from the PC Meeting (Merzari)

9. Membership Committee Report (Schubring)

10. Division Website Report (Shaver)

11. Honors and Awards Committee Report (Sun/Lee)

12. Nominating Committee (Muftuoglu)

13. Old Business (All)

14. New Business (All)

15. Adjourn (Pointer)
Treasurer report

2018 has been a very healthy financial year for THD thanks to generous contributions from the NURTEH-17 organizers and healthy meeting participation. Our division holds two separate accounts: one general and one scholarship/awards account (formerly referred as the endowment account). Spending from the general account is unrestricted up to the total value of the account, as long as the transactions are approved by the division executive committee.

Spending from the awards account is restricted to ensure the long term availability of the fund to support the THD awards. The general fund is supported by membership dues (referred as the Dues Revenue Allocation) and income from conferences hosted by the division (referred as the Meeting Revenue). The scholarship/awards account has primarily been funded by generous donations from the organizers of conferences supported by the division (referred as the Contribution Revenue). Recently that has changed as contributions from overseas conferences have been allowed to the general fund.

The balance of the restricted fund account as of June 2018 is $55,733. The balance for the unrestricted account is $97,280 as of September 30th 2018 (Table 1), not reflective of award and plaque orders made in October 2018. We note the very generous contribution of the NURTEH-17 organizers who donated 31,180$ to the general account. Notable is also the contribution received from ICAPP’18 for 5,425$, the first time the division receives income from the ICAPP series. Additional income from ATH’18 is also expected. The spend limit for 2018 is $4,750, but little has been spent to date due to issues with student support at the annual meeting. As a consequence the entirety of the student support will be dedicated to the winter meeting. A disbursement form has already been submitted.

We note the substantial health of the finances of the division, which has led to the desire of investing funds toward the creation of scholarships. A proposal to this end has been prepared and attached to this report. We note that at the annual meeting 2018 motions were made to create two scholarships but these were not carried out due to incorrect financial assumptions underlying those two motions.

The 2019 proposed budget (Table 2) reflects only one significant change to 2018: the contribution of $48,000 to the THD restricted fund to fund the scholarship.
<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9/30/2018</td>
<td>12/31/2018</td>
</tr>
<tr>
<td><strong>Revenues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dues Revenue Allocation</td>
<td>$1,722</td>
<td>$2,300</td>
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<tr>
<td>Contribution Revenue</td>
<td>31,180</td>
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<tr>
<td>Meeting Revenue</td>
<td>5,425</td>
<td>7,252</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>38,327</td>
<td>9,552</td>
</tr>
<tr>
<td><strong>Expenditures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awards, Plaque</td>
<td>65</td>
<td>1,250</td>
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<tr>
<td>Student Support</td>
<td></td>
<td>3,000</td>
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<tr>
<td>Scholarship &amp; NEED Funding</td>
<td></td>
<td>500</td>
</tr>
<tr>
<td><strong>Total Expenditures</strong></td>
<td>65</td>
<td>4,750</td>
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<tr>
<td><strong>Net Surplus/(Deficit)</strong></td>
<td>38,262</td>
<td>4,802</td>
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<tr>
<td>Fund Balance at 1/1/18</td>
<td>59,018</td>
<td>59,018</td>
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<tr>
<td>Fund Balance at 9/30/18</td>
<td>97,280</td>
<td>63,820</td>
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*Table 1. 2018 THD Budget.*
<table>
<thead>
<tr>
<th></th>
<th>2017 Actual</th>
<th>2018 Budget</th>
<th>2018 Actual through 9/30/2018</th>
<th>2019 Proposed</th>
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<tbody>
<tr>
<td><strong>Balance Forward from Previous Year</strong></td>
<td>$53,678</td>
<td>$59,018</td>
<td>$59,018</td>
<td>$97,280</td>
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<tr>
<td><strong>Budget Funds</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Member Dues Allocation ($2/member)</td>
<td>$2,502</td>
<td>$2,300</td>
<td>$1,146</td>
<td>$2,300</td>
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<td>Division Income</td>
<td>$4,980</td>
<td>$7,252</td>
<td>$36,605</td>
<td>$39,172</td>
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<tr>
<td><strong>Total Income</strong></td>
<td>$7,482</td>
<td>$9,552</td>
<td>$37,751</td>
<td>$41,473</td>
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<td><strong>Budget Expenses</strong></td>
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<tr>
<td>Newsletters, Website</td>
<td>$635</td>
<td>$1,250</td>
<td>$65</td>
<td>$1,250</td>
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<tr>
<td>Awards &amp; Plaques</td>
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<tr>
<td>National Meeting Costs</td>
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<tr>
<td>Topical Meeting Costs</td>
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<tr>
<td>Division Officer Expenses</td>
<td>$1,500</td>
<td>$3,000</td>
<td>$3,000</td>
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<tr>
<td>Student Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future Activity</td>
<td></td>
<td></td>
<td>$3,000</td>
<td></td>
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<tr>
<td>Scholarship/NEED Funding</td>
<td>$500</td>
<td>$500</td>
<td></td>
<td>$500</td>
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<tr>
<td>VMS Support</td>
<td></td>
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<tr>
<td>Other Expenses</td>
<td>$88</td>
<td></td>
<td></td>
<td>$48,000</td>
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<tr>
<td><strong>Total Expenses</strong></td>
<td>$2,143</td>
<td>$4,750</td>
<td>$65</td>
<td>$52,750</td>
</tr>
<tr>
<td><strong>Net</strong></td>
<td>$5,339</td>
<td>$4,802</td>
<td>$37,686</td>
<td>($11,277)</td>
</tr>
<tr>
<td><strong>Total Year End Funds</strong></td>
<td>$59,018</td>
<td>$69,820</td>
<td>$96,704</td>
<td>$86,003</td>
</tr>
</tbody>
</table>

*Table 2. 2019 THD Proposed Budget.*
1. **Name of Scholarship**  
   Thermal-Hydraulics Division Graduate Scholarship

2. **Background information on the individual that the Scholarship is honoring.**  
   This will not be a named scholarship. We note that THD is the only major division without a scholarship program despite significant growth in recent years. One scholarship will be awarded to a graduate nuclear science/engineering major, with the desired emphasis on areas supporting thermal-hydraulics as applied to nuclear energy. These areas include, but are not limited to computational thermal-hydraulics, experimental thermal-hydraulics, two-phase flow and heat transfer, thermal-hydraulics of severe accidents, thermal-hydraulics of operating light water reactors and thermal-hydraulics of advanced reactors.

3. **Sponsoring organization or Individual**  
   THD

4. **Academic level**  
   Master’s and doctoral level (graduate).

5. **Academic/research discipline (if any)**  
   Awardee should be enrolled in a US institution pursuing a master or a PhD with a main focus on thermal-hydraulics as applied to nuclear energy.

6. **Proposed initial level for fully-funded scholarship**  
   $63,000.

7. **Expected sources of initial/supplementary funding (must be fully-funded within 5 years)**  
   $48000 from unrestricted funds (to be moved to restricted funds) and $15000 from restricted funds.

8. **Plans for award of scholarship until sufficient funds are achieved**  
   Scholarship will be fully funded from the start.

9. **Special selection criteria, restrictions, and other special requirements (if any)**  
   Awardee should be enrolled in a US institution pursuing a master or a PhD with a main focus on thermal-hydraulics as applied to nuclear energy. This include but is not limited to computational thermal-hydraulics, experimental thermal-hydraulics, two-phase flow and heat transfer, thermal-hydraulics of severe accidents, thermal-hydraulics of operating light water reactors and thermal-hydraulics of advanced reactors.

No residency or nationality requirement will be imposed reflecting the international nature of the field.

Applicants shall submit a personal statement of 500 words or less where they describe long-term and short-term professional objectives with respect to their interest in nuclear reactor thermal-hydraulics.

The THD H&A shall be responsible or at least represented in the selection process of the awardee.