

# Arkansas Academy of Mechanical Engineering (AAME) Annual Business Board Meeting Minutes April 9<sup>th</sup>, 2022

#### CALL TO ORDER AND OPENING STATE OF THE ORGANIZATION REMARKS

The Annual Business Meeting of the Arkansas Academy of Mechanical Engineering was called to order at 9:01 a.m. CDT on Saturday, April 9<sup>th</sup>, 2022, by President Cristine Wolf. President Wolf opened by saying that AAME is a strong and viable organization and that we'll soon have new incoming officers. Membership has adapted to and is taking advantage of remote participation.

#### **IN ATTENDANCE**

Dave Albers Ted Ivy Russ Rasnic Mike Anderson Will Myers Adam Shallenberg Zane Boatwright Mike Stewart Jerry Newton Paul Butler **Darin Nutter** Greg Sisti **Roger Cordes** Pete Opper **Darren Talley Barbara Daniels** Katrenia Taweel Foye Penn James Davis **Lamar Pettus Ted Taylor Kerry Gaston Greg Pillar Scott Turley** Rodney Goodwin **Brian Porbeck Larry Young** Bill Green Frank Porbeck Tom Weiss Melynda Hart Nathan Porbeck Daniel Wilson Robert Porbeck Jeff Hayes Cristine Wolf

#### **DEAN'S ADDRESS**

Dean Kim Needy began her address by saying that she has now been in the Dean's position for 18 months. She started at the University of Arkansas as the Industrial Engineering Department Head in 2008 and moved to the position of Dean of Graduate School and International Education in 2014. She's worked with M.E. Department Head Darin Nutter for years. She thanked AAME members for everything they do for the M.E. Department and M.E. students. The Mechanical Engineering Department has had unprecedented growth, even with the strain of COVID. She said that Dr. Nutter is an excellent department head. New department heads are assigned a mentor, and Dr. Nutter is mentoring the new Computer Science/Engineering Department Head. The university is searching to hire a new chancellor and Dr. Charles Robinson is the interim chancellor. Dean Needy is heading the search committee as Dr. Bobbitt wished for engineering to lead the search. The 19 person search committee, in conjunction with a search firm, began the search process by first reaching out to stakeholders to determine what they want to see in a new chancellor. Applications will be collected starting this summer and around a dozen interviews are expected. By this fall, three finalists are expected to be brought on campus with a goal of making the final hire by January 1, 2023. Dean Needy mentioned several key people in the College of Engineering. Terry Martin is Senior Vice Provost. Mike Malone is Vice Chancellor for Economic Development, and heading the Runway Group to spur community investments. Bill Lansden is the Senior Director of

Development and External Relations. A new building to house the Institute for Integrative and Innovative Research (I3R) will be constructed across from the Bell Engineering building, made possible by an almost \$200 million gift from the Walton family. A new campus is also being planned in Bentonville. The university is continuing to grow, with 7000 new freshman expected this fall. While many campuses are shrinking, ours is growing. The College of Engineering is working on refreshing the strategic plan, and looking for ways to improve diversity and produce more engineers. One way to grow engineering is to get non-traditional students excited about the field. The JEDI initiative and more research are both important factors. A third element is to add more space, as we've grown, but our physical footprint hasn't. Our drive is to be the premier college of engineering in the region. The better the college, the more valuable your degrees are. Dean Needy sends out a monthly email, please notify Melynda if you'd like to be added to this list. The pandemic is still having a lingering effect on education. Things are getting better without a mask mandate, but challenges remain. Students' mental health and the additional strain on staff is still a concern. If you've heard of the "great resignation" across the country, with employees leaving their jobs, the effect is hitting here as we are seeing increased staff departures. In conclusion, the dean said she is optimistic about the future of both the College of Engineering and the Department of Mechanical Engineering.

The dean took several questions from members. Zane Boatwright asked about the new Bentonville campus. The dean said the thought is to have a hub near Walmart's corporate headquarters. Another member asked about building a new mechanical building or adding to the current one. There is not currently funding for this, but it will be needed eventually. Dr. Nutter has previously mentioned estimates of \$20 million to add on to the existing building.

#### **APPROVAL OF PREVIOUS MEETING MINUTES**

Secretary Pete Opper submitted minutes from the February 11<sup>th</sup>, 2022 Winter Board Meeting for approval, which were emailed to membership by Melynda. Zane Boatwright motioned to approve, Jeff Hayes seconded, and the Board approved the minutes.

#### TREASURER'S REPORT

Treasurer Jeff Hayes presented the Treasurer's Reports for FY2022 3<sup>rd</sup> quarter ending on March 31<sup>st</sup>. Starting with the General Accounts Report, Treasurer Hayes briefly explained the report format, noting the contributions and expenses for the quarter and the ending balance of \$234,080.97. The General Accounts Report is shown below.

#### FY2022 (2021-2022) 3<sup>rd</sup> Quarter General Accounts Treasurer's Report

ARKANSAS ACADEMY OF MECHANICAL ENGINEERING University of Arkansas, ME Bldg., Fayetteville, AR 72701, 479-575-4153 General Accounts Report March 31, 2022 Change from Last Report Income: 25,155.00 9,155.00 1,624.00 300.00 S S Total . . . . . . . . . . . . \$ 26.779.00 9.455.00 26 779 00 S Expenses / Transfers out: S (10,000.00) \$ (6,289.81)S (6.289.81)\$ Misc. Expenses (6.52)Transfers to: Scholarship Investment Account Scholarship Spending Account (100,000.00)\$ (2,074.00)S -> \$ (118.370.33) S (6.296.33)Investment Income, Expenses, and Gain/Loss: Interest Income: Investment Act. (TRP) . . . . . . . . . . . . \$ 451.15 35.93 S 5.65 S 1.96 Overhead: (119.24)\$ (29.41)Foundation ..... (596.21)(147.03)\$ S Investment Gain/Loss ..... 9,760.71 (5,703.93)9,502.06 Total . . . . . . . . . . . . . . \$ (5,842.48)Ending Balance as of March 31, 2022 (2,683.81)Location of General Account Funds: Spending Account: . . 73.622.15 Investment Account: 160,458.82

Submitted April 9th, 2022 by: Jeff Hayes, AAME Treasurer

AAME: Honoring Distinguished ME Graduates, Promoting UA Mechanical Engineering

234,080.97

Presenting the Scholarship Report, Treasurer Hayes reminded the members that two or three years ago, we started a named scholarship program, and as it gets bigger, we'll be able to fund more scholarships. Currently AAME is matching member contributions to these named scholarships. The matching funds, however, do not count toward the \$10,000 minimum total contribution from the donor for the named scholarship. The Scholarship Accounts Report is shown below.

### FY2022 (2021-2022) 3<sup>rd</sup> Quarter Scholarship Accounts Treasurer's Report

ARKANSAS ACADEMY OF MECHANICAL ENGINEERING University of Arkansas, ME Bldg., Fayetteville, AR 72701, 479-575-4153

Scholarship Accounts Report

March 31st, 2022

	,				Change from Last Report
Beginning Balance as of July 1, 2020:		<u>\$</u>	217,338.66		- 1
Income / Transfers In:					- 1
Member Contributions				\$	1,200.00
Matching Gift Contributions	672.00			\$	
Transfers in to:	400 000 00			\$	
Scholarship Investment	2.074.00			\$ \$	.
	122,796.85		122 706 05	φ \$	1.200.00
Expenses:	122,790.83	> Ş	122,790.83	Ф	1,200.00
Student Scholarships:					- 1
Fall Semester	(7,500.00)			\$	
Spring Semester	(6,000.00)			\$	
Misc. Expenses	-			\$	
Total \$	(13,500.00)	> \$	(13,500.00)	\$	
Investment Income, Expenses, and Gain/Loss:					- 1
Interest Income:					- 1
Investment Act. (TRP)	470.55			\$	80.73
Spending Act. (N/E)	0.57			\$	0.17
Overhead:				\$	
Development	(751.77)			\$	(330.38)
Foundation	(150.35)			\$	(66.08)
Investment Gain/Loss	6,097.57			\$	(12,242.27)
Total	5,666.57	> \$	5,666.57	\$	(12,557.83)
Ending Balance as of . March 31st, 2022		\$	332,302.08	\$	(11,357.83)
Location of Scholarship Account Funds:					
Spending Account:		\$	(3,091.65)		
Investment Account:		\$	335,393.73		
Total		\$	,		
Submitted April 9th, 202					
AAME: Honoring Distinguished ME Graduates, Promoting UA Mechanical Engineering					

For information on the named scholarship program, please visit the AAME website, first click the Resources tab, then Bylaws and Operations and look for Tiered Scholarship Donation Recognition Plan (<a href="https://aame.uark.edu/resources/">https://aame.uark.edu/resources/</a>).

#### **COMMITTEE REPORTS**

#### **✓** Finance Committee Report

Chairman Robert Porbeck gave the Finance Committee Report. He reminded membership that the committee is currently comprised of just himself, and he would welcome other members to join. Chairman Porbeck said he develops the initial proposal for the fiscal budget based on the previous years' finances, presents it to the board and after any required modifications, the board and president approve it, and then we try to adhere to it. Thus far this year, we've done a good job staying on budget.

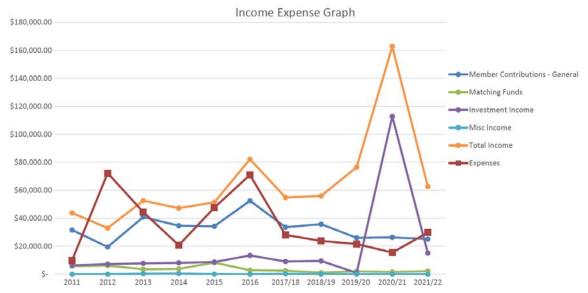
Chairman Porbeck said that he works closely with Treasure Hayes to check for errors in the reporting. He noted that the general scholarship fund had \$112,798 in investment income last year, which was made possible by a much larger asset base than what we've had in the past. Total funds are up to \$566,383. We have close to 180 members, and while we have been adding members, the number of contributors is not increasing. A lot of members have given their contributions at the banquet and hopefully that will be the case this year. The FY2022 3<sup>rd</sup> Quarter Finance Report and the approved FY2022 (2021/2022) Budget are excerpted below. The FY2021 (2020/2021) finances are shown for comparison.

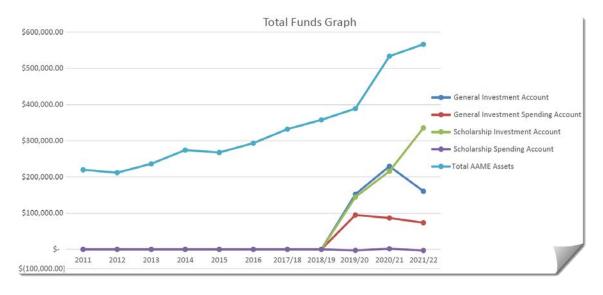
FY2022 (2021-2022) 3<sup>rd</sup> Quarter Finance Report Excerpt

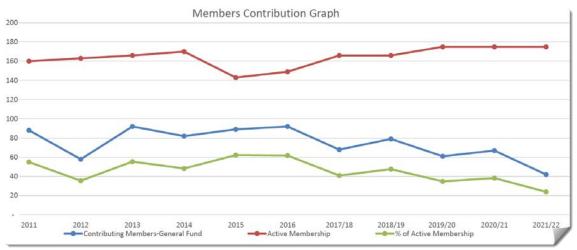
Historio	al Financial Reports						ì
	Year End	I	<b>2020/21</b> 06/30/21		<b>2021/22</b> 3/31/2022	-	2021/2022 Budget 4/24/2021
Active Membership Contributing Members-General Fund Contributing Members-Scholarship Fund			175 67		175 42		
% of Active Membership			38		24		
Proposed Member Contribution Members with Matching Programs INCOME			\$300		300		300
Member Contributions - General		\$	26,375.00	\$	25,155.00	\$	24,000.00
Member Contributions - Scholarships		\$	22,000.00	\$	20,050.85	\$	15,000.00
Matching Funds Investment income, expenses, gain/loss	General	\$ \$	1,612.00 57,747.57	\$ \$	2,296.00 9,502.06	\$ \$	1,000.00 8,000.00
investment income, expenses, gainvioss	Scholarship	\$	55,050.63	\$	5,666.57	\$	8,000.00
Investment Income	Total	\$	112,798.20	\$	15,168.63	-	0,000.00
Misc Income		\$	· -	\$	· -		
Total Income		\$	162,785.20	\$	62,670.48	\$	56,000.00
Expenditures							
Scholarships	Fall	\$	7,750.00	\$	7,500.00	\$	8,000.00
Oncorting	Spring	\$	7,750.00	\$	6,000.00	\$	8,000.00
Operating	Annual Meeting Miscellaneous, Ops			\$ \$	6,289.81 6.52	\$	36,000.00
Special Projects	microsianicoac, opo			\$	10,000.00	\$	5,000.00
Solar Splash Competition Student Competitions Newsletter Printing							,
	Total Expenditures	\$	15,500.00	\$	29,796.33	\$	57,000.00
Income exceeds		e.	147.285.20	c	32.874.15	e	(4,000,00)
expenditures by: Transfer to Scholarship Investment Account	Fall / Spring	\$ \$	147,205.20	Ф	32,074.15	Þ	(1,000.00)
Open Account	ran, oping	Ψ	14,000.01				
General Investment Account		\$	229,430.09	\$	160,458.82		
General Investment Spending Account		\$	86,740.15	\$	73,622.15		
Scholarship Investment Account		\$	215,620.50	\$	335,393.73		
Scholarship Spending Account		\$	1,718.16	\$	(3,091.65)		
Endowment Fund (Restricted)		_	F22 F00 00	•	ECC 202 05	=	
Total AAME Assets		\$	533,508.90	\$	566,383.05		

Updated finance charts that include data though the 3<sup>rd</sup> Quarter of FY2022 are shown below.

## FY2022 (2021-2022) 3<sup>rd</sup> Quarter Finance Report Graphs







Reminder: Contributions can be made by check and mailed to Melynda or by electronic payment. Mailing instructions and online payment links are on the AAME website at <a href="https://aame.uark.edu/resources/">https://aame.uark.edu/resources/</a>, click the "Giving" link.

#### ✓ Awards Committee

Chairman Mike Anderson reported that the alumni awards will be presented at the 2022 College of Engineering Banquet and a new search will begin for next year's award recipients.

President Wolf added that if anyone knows potential nominees for distinguished student or graduate awards to please nominate them.

#### ✓ Conduct, By-Laws & Constitution Committee Report

Chairman Zane Boatright began his report by saying that he enjoys being chairman of the By-laws Committee. He explained that this year, there are two proposed by-laws changes. The first is a change to better accommodate new inductees who can't attend their first scheduled induction ceremony. The change will allow them to be inducted at the following year's ceremony without requiring the member to have to complete a second nomination and board approval process. The change would only allow one such deferment, after which a new nomination and approval would be required. The second proposed change is to create a new associate level membership for alumni that have held their degree for a minimum of 10 years.

**Induction Deferment Proposal** – After some discussion, Lamar Pettus motioned to approve, Paul Butler seconded, and the membership unanimously voted to approve. This change affects Section I.A.5 of the by-laws, and the new approved language is listed below.

I.A.5. An Elected Member shall be present for induction as an Active Member at the next scheduled Induction Ceremony. If an Elected Member cannot be present at this Induction Ceremony, they shall notify the Nomination Chairperson in writing to request a one-year extension of their election. If the elected members cannot be present at either of the first two inductions they shall have their invitation to membership withdrawn, and shall then have the same status for election as any other possible candidate.

Associate Level Membership Proposal — There was quite a bit of discussion on this proposal. One member voiced that the new associate level could dilute the honor and value of AAME membership and thought that the current 15 year requirement for full membership is a reasonably short time to be nominated. He voiced that members should have more experience in research, management, etc., and that there is a long tradition of the current basic requirements. Another member speaking in support thought the new level could get more active members involved and pave the way for associate members to become fully engaged full-members later. Another member asked why the proposal requires an associate member to move to inactive status if they aren't later inducted to be a full member. Mike Anderson said since the number of associate members is capped at 20, if they weren't moved to an inactive status, eventually there might not be any associate spots available for new members. Another member said that he does see value, and hopes that we would use the new level for people that actually want to get involved. After 10 years, it can be easy for a graduate to lose their connection to the

university, so the new 10 year level could help keep these alumni connected. Roger Cordes requested to strike the second occurrence of "may not" in paragraph 6a, so that a grammatical double negative would be eliminated. Zane agreed to update the verbiage. After more discussion, Lamar Pettus moved to adopt, Bill Green seconded, and membership voted to approve with one member voting no, and the remaining members voting yes. The change was added to Section I of the by-laws, inserted as sub-section B. Previous sub-sections B through D were left unchanged and re-identified as sub-sections C through E. The new Section I. B. is listed below.

## I.B. ASSOCIATE MEMBERSHIP QUALIFICATIONS FOR THE ARKANSAS ACADEMY OF MECHANICAL ENGINEERING

- 1. Associate Members shall be limited to living individuals, duly elected and subject conditions:
- 2. Each Associate member shall hold a degree in Mechanical Engineering from the University of Arkansas Fayetteville, and granted at least Ten (10) years prior to the election, and said degree and professional activities shall attest to competence in Mechanical Engineering.
- 3. Each Associate Candidate Member shall have received at least three-fourths affirmative vote of the total votes cast for election to membership. The number of Active Associate Members shall not exceed twenty (20).
- 4. An Elected Associate Member shall be present for induction as an Active Associate Member at the first induction ceremony held after his/her election. Any Active Associate Member may request in writing to be moved to Inactive Associate Member Status.
- 5. Once an Associate Member reaches fifteen (15) years post-graduation, they will be moved to Inactive Associate Member status and are eligible for nomination as a full Member.
- 6. Associate Member Status does not guarantee Member Status once the Associate Member reaches fifteen (15) years post-graduation.
  - a) An Associate Member may not hold office in the Academy, vote on new membership nominations, or vote on any subject at the annual business meeting.
  - b) An Associate Member will have opportunities to build working relationships with other Mechanical Engineers and demonstrate support of AAME through volunteer opportunities.

President Wolf thanked Zane for his work in developing the changes to the by-laws.

#### √ Fundraising Committee

Chairman Bob Harrison not available and there was no fundraising report.

#### √ Membership Committee Report

Chairwoman Katrenia Taweel began by welcoming our newly inducted members that were in attendance. She asked for anyone who knew a deserving member to please nominate them for membership for 2023. Full member eligibility requires having graduated in 2007 or earlier. Chairwoman Taweel explained that we are looking for members who want to engage with the organization as well as with students in the M.E. department. An annual \$300 or more general donation is encouraged from all members. Membership isn't all about money, but we do need money to do a lot of our work. Nominations are due by September 1<sup>st</sup> and forms are on available on the AAME website. The membership committee will evaluate all applications and in October, recommend those approved by the committee to the board. The board will then vote on the nominees in

November. We can look for potential nominees in several ways. We have access to a list graduates that have given their contact information to the alumni association. Bob Norwood often found nominees by searching the LinkedIn website or app. The M.E. department also has a list of graduates by year, but without contact information. Any members interested in serving on the membership committee should contact Katrenia.

Reminder: Membership nomination forms are available on the AAME website at <a href="https://aame.uark.edu/membership/">https://aame.uark.edu/membership/</a>, scroll to the bottom of the page and click the "Nomination Form" link.

#### ✓ Student Liaison Committee

Chairman Darren Talley began by saying that the Student Liaison Committee was also a committee of one, but he has had a great group of volunteers that come together to help out with resume reviews. Since the fall of 2020, all these reviews have been completely remotely. Students submit resume to Melynda, she gives them to Chairman Talley, and he coordinates with membership to perform the review sessions. Twenty students were assisted last fall and ten this spring. He would like to get some feedback from students well this program is working from their perspective. The student mentoring program is essentially in hiatus. If any members are interested in mentoring an M.E. student, either remote or in person, please contact Chairman Talley. President Wolf commented that Will Myers started student resume reviews and Chairman Talley has done an outstanding job carrying it on. This program is a great example of where AAME fulfills the goals of our mission statement.

#### MECHANICAL ENGINEERING DEPARTMENT UPDATE

Dr. Nutter said that the department is still working to overcome the challenges left from the COVID pandemic. During COVID, some students struggled in the remote environment and became less engaged with learning. It is taking time to get those students back. It is encouraging to see that we do have a large number of students that are doing well. Another challenge is hiring staff in today's job environment. Dr. Nutter presented several slides on the state of the department, which are excerpted below.

## How many?

- Graduates (3X more than 20 years ago):
  - 140 BSME
  - 10 PhD
  - -8 MS
- Enrollment 550 students
- 21 faculty
- 10 staff

## Fall 2022 Expectations

- Enrollment
  - Record high applications
  - Waiting list
  - ESPN 'bump'
  - In-state vs. out-of-state
  - 7,000 incoming UA freshma
- Scholarships
- · New Chancellor search

	PERSP	ECTIVE (Fall):
	1960	5,862
	1970	11,079
	1994	14,655
ar	2021	29,068
	2022	30,000+

#### New to MEEG

- Faculty
  - Keith Walters
  - Wan Shou
- Staff
  - Keli Gill –
     administrative
     specialist







## Curriculum

- · Reviewing our technical electives
  - Materials engineering application
  - Controls, robotics, and automation
  - New Machine Learning and Tribology-related
- Concentrations
  - Design and manufacturing
  - Robotics and automation



## FE Initiative

- · Two-fold purpose
  - Students' future
  - Information for MEEG
- · Review sessions
- Emphasized at advising
- AAME funded



## **Looking Ahead**

- Department Head renewal
- · Faculty/Staff hiring
  - Develop new faculty to seek balanced excellence
- Marketing
- Teaching
- Quality outcomes (support all, but don't lose sight of our very best)
- Relevant technical topics (fundamentals + ...)
- Research
  - Increasing number of graduate students
  - Institute for Integrative and Innovative Research
- Service
- Continue strong internal service commitment
   F2F engagement with technical community
- Alumni and Employers
  - Continue to cultivate relationships and benefit to our students; internship

He said that AAME scholarships are helping so many students, and the most recent recipients were at the AAME banquet. The department is looking for ways to improve the M.E. curriculum and to improve gaps in technical electives. The M.E. degree requires 124 credit hours and 12 of those are for technical electives. Classes in design and manufacturing, hybrid electric vehicles, controls, machine learning, tribology and robotics are being considered; we want to make sure the classes engage students with current topics. Dr. Nutter often advises students to consider getting a minor or a concentration instead of a double major so they will graduate in a reasonable time. He is pushing students to take the FE exam, and AAME scholarships are being utilized to pay FE fees. Academy funds are utilized to award a \$100 Walmart gift card to students that take the exam. In the recent past, only about 20 students took the F.E., the goal this year is 50 students. The M.E. department receives aggregate test result data that can be used to evaluate the effectiveness of the program and adjust teaching in subject areas. Dr. Nutter is looking forward to being renewed as Department Head for 5 years. He mentioned that the University is a Carnegie R1 Level institution. He thanked AAME for everything we do to help mechanical engineering.

#### **OLD BUSINESS**

Update on Tiered Scholarship Donation Recognition Program – President Wolf said that AAME's purpose includes honoring members and also supporting the M.E. department. Scholarships are an important element to this mission. Any contribution towards scholarships can help. Remember, a \$300 annual contribution is encouraged to support the general fund, but you may always contribute additionally to support scholarships or another purpose. When a member donates \$1000 toward a named scholarship, they are recognized as a fellow, at \$5000, a one-time scholarship is created, and at \$10,000 it becomes a continuing scholarship. This is not the

same as an endowed scholarship, which requires a \$50,000 and is setup by the College of Engineering. Scholarships are a way to positively impact the lives of students in mechanical engineering. Treasure Hayes said that we've had 38 members donate between \$100 and \$20,000 to the scholarship program.

#### **NEW BUSINESS**

Election of 2022 Incoming Board of Directors Nominees by AAME Membership -

President Wolf said that four members were willing to serve on the Board of Directors to replace outgoing board members Stacey Archer, Bob Harrison, Pete Opper and Katrenia Taweel. The proposed new Board Directors were Roger Cordes, Kyle Johnston, Greg Sisti and Darren Talley. Zane Boatwright motioned to nominate the group, Lamar Pettus seconded, and membership approved election of all four nominees. Board Directors serve a three year term.

#### **BOARD MEETING**

The Board of Directors was required to elect officers for the 2022-2023 term. President Wolf said she was willing to continue as president for another term, Mike Anderson had agreed to take on the president-elect position, Jeff Hayes was willing to continue as treasurer, and Pete Opper was willing to continue as secretary. A motion was made to elect the slate of officers, Will Myers seconded, and the board voted unanimously to approve. Officers serve a one year term. President Wolf noted that Katrenia Taweel had volunteered to be president-elect in 2024

#### **CONCLUSION**

President Wolf opened the floor for further comments or questions, but there were none. President Wolf thanked Melynda and Dr. Nutter for all they do, and adjourned the meeting.

The next AAME meeting is planned for June or July 2022.

Minutes prepared and respectfully submitted by Pete Opper, 2021-2022 AAME Secretary, with special thanks to Melynda Hart for assistance.