



Historical Committee
Sunday January 30, 2022
8:00 am - 12:00 pm
Caesars Palace - Las Vegas NV

Minutes

1. Call to Order

Mr. Morasch called the meeting to order at 8:02am.

2. ASHRAE Commitment to Care

Mr. Morasch read the Commitment to Care aloud to the committee.

The health and safety of all ASHRAE conference attendees is a top priority. Out of respect for our fellow attendees, we commit to wear masks indoors, monitor our health, seek medical attention if symptoms develop and adhere to all [ASHRAE Commitment to Care](#) protocols. We are committed to the well-being of one another.

3. Code of Ethics and Values Commitment

Mr. Morasch read the ASHRAE Code of Ethics and Values Commitment aloud to the committee.

In this and all other ASHRAE meetings, we will act with honesty, fairness, courtesy, competence, inclusiveness and respect for others, which exemplify our core values of excellence, commitment, integrity, collaboration, volunteerism and diversity, and we shall avoid all real or perceived conflicts of interests.

(Code of Ethics: <https://www.ashrae.org/about/governance/code-of-ethics>)

(Core Values: <https://www.ashrae.org/about/ashrae-s-core-values>)

4. Introduction of Subcommittee Members and Visitors

Committee members and guests introduced themselves and it was noted that the 2021-2022 Historical Committee Roster was posted on Basecamp for committee members to reference as needed.

Committee Members

Spencer Morasch, Chair
Nissun Feiner
Robert Thomas Pollard
Glenn Remington
Atilla Biyikoglu
Wei Sun, absent
Norman Grusnick
Steven Marek
Donald Brandt, PEC Chair,

5. Review of Agenda

Mr. Morasch reviewed the agenda with the committee with no new items added for discussion.

6. Historical Subcommittees

6.1 Administrative/Archives

Members: Remington - Chair, Grusnick, Biyikoglu, Morasch (ExO)

Committee members discussed at length past efforts and the need to continue future efforts to digitize ASHRAE Historical archives including the development of templates and guidelines.

6.2 Communications/Historians Guidelines

Members: Feiner - Chair, Sun, Morasch (ExO)

Mr. Morasch explained that the Historian Guidelines document is current and up to date. Mr. Feiner said he would include the Historical Newsletter in his MBOs for the 2022-2023 Society Year.

6.3 Awards/Leadership Voices

Members: Feiner - Chair, Pollard, Morasch (ExO)

Ms. Shelia Hayter and Mr. Barney Buroughs have been chosen for the next two Leadership Voices interviews to be filmed. The committee also discussed the importance of including industry innovators and leaders.

Mr. Morasch reminded committee members that the ASHRAE employee assigned videography has left ASHRAE and there is no plan to fill this position again.

Mr. Feiner commented that he would be soliciting suggestions for future Leadership Voices Interviews from committee members. An Action Items was assigned to staff to locate the Leadership Voices Interview recording of Steve Comstock.

7. Review Actions Items

The committee reviewed on-going action items.

<u>No.</u>	<u>Responsible</u>	<u>Action Item</u>
1	Staff	Posted Approved minutes from Meeting of June 9, 2020.
2	Remington	Completed. Meet with a trained archivist to discuss the development of a “finding aid” for ASHRAE’s archive.
3	Nagengast & Remington	Develop parameters and guidelines for content inclusion in ASHRAE’s archive.
4	Feiner	Develop an outline for templates and procedures for document storage ASHRAE’s archive.
5	Remington & Nagengast	Develop an Historical Newsletter.
6	Feiner	Develop a document reporting on diversity in ASHRAE and the HVACR industry.

8. Review of Committee MBOs

Mr. Morasch reviewed Historical Committee’s MBOs shown in [Attachment A](#).

Mr. Feiner stated that on-going MBOs will be carried through to the 2022-2023 Society Year. Committee Members also noted the new year’s Presidential Theme will be “Feeding the Roots of ASHRAE”.

The committee discussed the Gold Ribbon and Lou Flagg awards. Staff reminded committee members that the Gold Ribbon award form and FAQ sheet are located on the ASHRAE website on the Historical Committee page. The Lou Flagg Award section in the same location on the ASHRAE website includes award criteria, award form with instructions, requirements, two winning paper and a list of all winners. Additionally, there are several Regional histories and timelines.

The committee discussed that although they do not endorse candidates for either Hall of Fame or Pioneers of the Industry, both individuals and/or the committee can nominate someone.

9. Partnerships with other organizations

Mr. Morasch presented committee members a proposal he has developed for a vote of support. [\(Attachment B\)](#) & [\(Attachment C\)](#)

-
- (1) That Historical Committee approve a proposal to Partner with United Engineering Foundation, AiAA, AIChE, ASCE, IEEE, SPE & SWE for the purposes of engaging with the Engineering & Technology History Wiki**

Background: In order to sustain membership in perpetuity, and to operate outside of ASHRAE's normal budget, it is proposed to set up a dedicated endowment fund in the ASHRAE Foundation. It is anticipated that \$60,000.00 will be needed to accomplish this goal, based on a 5% return on investment by the Foundation. Fundraising will be needed to raise the endowed amount, including soliciting the Life Members Club, who have well supported Historical activities in the past. Additional funds will be solicited from ASHRAE members, including Regions & Chapters.

Fiscal Impact: None at this time.

Approved 5-0-0 CNV

Mr. Morasch thanked the committee for their support and reported to the committee that he would investigate possibly requesting financial support for this project from ASHRAE Life Members and ASHRAE Foundation.

10. Referral from Region VII

Historical Committee reviewed a PEC **Referred Motion from Region VII Fall 2021 CRC, Memphis Chapter Memphis Chapter – Motion 6A (11/4/2021):**

“That Regional Historians be added to the Society Historical Committee as full voting members with all rights, and privileges, and responsibilities pertaining thereto.”
(Attachment D)

Background: Currently, the Regional Historians are allowed and encouraged to attend the Historical Committee meetings as guests. They, in effect, have a voice but no vote. There is a vast divide between the work and objectives of the Historical Committee and the expectations of the Regional and Chapter Historians, to the point that replies to Regional and Chapter inquiries of the Historical, Committee are delayed or go completely unanswered. Further, this disconnect between the Historical Committee and the grassroots (e.g. Regions and Chapters) is made publicly obvious by the resources on the Society Historical Committee's webpage being so old and out of date. In at least one case, the PowerPoint presentation is so outdated as to have the previous ASHRAE logo from nearly a decade ago still on it. Grassroots representation by, and voting authority of, Regional Historians would keep the Historical Committee much more in tune and in contact with the Grassroots and would likely result in a better historical archive and more participation in the Gold Ribbon and Lou Flagg awards programs. This would in turn incentivize Chapters to appoint active Chapter Historians.

Fiscal Impact: \$15,000.00 per year (15 Historians x 2 Conferences/yr. x \$500 Avg. Airfare)

After much discussion, committee members decided to postpone the motion until after an ad hoc committee could be appointed to investigate the consequences of approving the motion for Historical Committee.

Concerns included Regional Historian term limits and the lack of Regional Historian attendance in the past and the effect that might have on Historical Committee achieving quorum at meeting.

After committee discussion, Mr. Morasch appointed the ad hoc to investigate the issues of this referred motions.

Name	Position	Voting
Niss Feiner	Chair	Yes
Dunstan Macauley	Member	Yes
Spencer Morasch	Member	Yes
Gary Cooper	Member	Yes
Wei Sun	Member	Yes

11. Other Business

None.

12. Adjourn

Mr. Morasch adjourned the meeting at 12:14 p.m.

MBO Submission to PEC Planning								
FINAL - July 30, 2021								
Revised with Committee Assignments - Oct 19, 2021								
Author		Spencer Morasch - Chair, Historical Committee						
Council:		Publishing and Education Council						
Committee:		Historical Committee						
Reference Document		ASHRAE Strategic Plan 2019-2024						
Society Year:		2021-2022						
#	Description	Metric	Historical Committee Assigned	Committee Members	Strategic Plan Initiative # (can be more than 1)	Strategic Plan Goal # (can be more than 1)	Completion Date	Financial Assist Req'd?
		(how do we determine success?)		Chair in RED colored font				
	Example: Explore frequent use of digital live trainings for Grassroots, which will provide quick feedback and help from Grassroots.	Max 3-5 best practices			3 & 4	1b, 2a,b,c 3a,b	11/30/2020	No
1	Develop proposals to improve the opportunities for Regional Historians to participate in Society Historical Committee activities	Continue on-line participation of Regional Historian's at Society Historical Committee Meetings	Communications / Regional Historian Guidelines Committee	Niss Feiner / Wei Sun / Spencer Morasch (ExO)	3	2c, 3a	6/30/2022	No
2	Develop PAOE Recommended Changes to 2022-2023 Society Year PAOE	To get ahead of the PAOE Committee Cycle with proposal for the following year's (Society Year 2022-2023) PAOE Letter in Summer 2022. Historical PAOE subcommittee needs to work with the PAOE subcommittee of Members Council during the Fall 2021 to Submit recommendations.	Communications / Regional Historian Guidelines Committee	Niss Feiner / Wei Sun / Spencer Morasch (ExO)	4	2a	12/31/2022	No
3	Encourage younger members of ASHRAE to have interest in history-related activities of the Society	Proposing to keep the PAOE line item "For a local Chapter Historical activity performed by an actively engaged YEA member". Reference 2021-2022 PAOE Newsletter - Tag# YEAS (under YEA)	Communications / Regional Historian Guidelines Committee	Niss Feiner / Wei Sun / Spencer Morasch (ExO)	4	2a	6/30/2022	No
4	Historical Category PAOE Update Summary Report at Annual & Winter Conferences to include copy similar to 2019-2020 Annual Meeting. Most recent report dated 1/11/2021 was included with Historical Comm. Meeting Minutes of June 3, 2021 (Attachment C).	To encourage Regional Historians to target the below PAR performing Chapters in their Region based on the previous year's Historical PAOE Summary.	Communications / Regional Historian Guidelines Committee	Niss Feiner / Wei Sun / Spencer Morasch (ExO)	4	2a	1/31/2022	Yes
5	Encourage Chapter Historians who don't Attend their Regional CRC to complete the Chapter Historians Training Power Point and promote on-line History Workshop participation at CRCs	Update the Chapter Historians Training PowerPoint. Add points for submittal of a completed MBO with phone discussion with Regional Historian prior to August 30 of current fiscal year. Promote on-line workshop participation at CRCs	Communications / Regional Historian Guidelines Committee	Niss Feiner / Wei Sun / Spencer Morasch (ExO)	4	2a	6/30/2022	No
6	Foster collaboration with other international societies to improve our history research and support history-related activities of the Society	1) Continue work on collaboration. HC has links with similar groups in CIBSE and AICARR - opportunity to pursue to work w/similar committees in CEN, Intl Institute of Ammonia Refrigeration (IAR), Intl Institute of Refrigeration (IIR), & Global Cold Chain Alliance (GCCA). 2.) Continue work to investigate ASHRAE membership in the IEEE History Center. Grow support in the Life Members Club to fundraise & create an endowment fund that would provide ongoing financial support to sustain membership in the IEEE History Center.	Morasch & Feiner	Spencer Morasch & Niss Feiner	4	2b	6/30/2022	No for some groups, but YES for IEEE History Center
7	Leadership Recall - Arrange for videos at Winter Conference - January 2022	Arrange two Presidential interviews. Review other potential interviewees	Awards / Leadership Recall Committee	Niss Feiner / Robert Pollard / Spencer Morasch (ExO)	4	1b, 2c	1/31/2022	Possibly
8	Leadership Recall - Arrange for videos at Annual Conference - June 2022	Arrange two Presidential interviews. Review other potential interviewees	Awards / Leadership Recall Committee	Niss Feiner / Robert Pollard / Spencer Morasch (ExO)	4	1b, 2c	6/30/2022	Possibly
9	Digitize Archived Journals + Transactions	Encourage digitalization of all Society Journals and Transactions	Administrative / Archives Committee	Glen Remington / Norman Grusnick / Atilla Biyikoglu / S. Morasch (ExO)	3	3b	6/30/2022	Yes
10	Historical Awards - Encourage submission of nominations for Chapter Historian Gold Ribbon Awards and the Society Lou Flagg Historical Award.	A min. of one Gold Ribbon Award Nominee in each Region, and at least two nominations submitted for the Lou Flagg Historical Award	Administrative / Archives Committee	Glen Remington / Norman Grusnick / Atilla Biyikoglu / S. Morasch (ExO)	4	2a	12/31/21 for Lou Flagg Award, 6/30/22 for Gold Ribbon Award Nominations.	No
11	Historical Committee Newsletter - Resume publishing a newsletter for the target audience of Regional & Chapter Historians.	4 Newsletters published during the Society year.	Communications / Regional Historian Guidelines Committee	Niss Feiner / Wei Sun / Spencer Morasch (ExO)	4	1b, 2a, 2c	4 Editions: Target publish dates of July, Oct., Jan. & April.	No



Historical Committee

January 30, 2022

Draft document authored by Spencer Morasch - Chair

PROPOSAL

For ASHRAE to join the partnership between the United Engineering Foundation, and the AIAA, AIChE, ASCE, IEEE, SPE & SWE, for the purpose of engaging with the Engineering & Technology History Wiki (ETHW).

The ETHW is administered by the IEEE History Center.

Engineering & Technology History Wiki (ETHW) Home Page:

[Engineering and Technology History Wiki \(ethw.org\)](http://ethw.org)

High level overview of the ETHW - website:

[ETHW:About - Engineering and Technology History Wiki](#)

For ASHRAE to join the partnership, will require \$3000.00 annual “dues” for membership.

In order to sustain membership in perpetuity, and to operate outside of ASHRAE’s normal budget, it is proposed to set up a dedicated endowment fund in the ASHRAE Foundation. It is anticipated that \$60,000.00 will be needed in order to accomplish this goal, based on a 5% return on investment by the Foundation.

Fundraising will be needed to raise the endowed amount, including soliciting the Life Members Club, who have well supported Historical activities in the past. Additional funds will be solicited from ASHRAE members, including Regions & Chapters.

ASHRAE Mission & Vision

Mission: To serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration and their allied fields.

Vision: A healthy and sustainable built environment for all.

Joining the partnership will support ASHRAE’s Mission & Vision as follows:

- 1.) By joining the ETHW, ASHRAE collaborates with other leading engineering societies to document ALL engineering history, and have it housed in a single, readily accessible location. It is a valuable long-term resource / reference that can benefit ASHRAE & it’s membership now and into the future.
- 2.) **“Those that fail to learn from history are doomed to repeat it.”** (Winston Churchill).

- 3.) The key to learning from history is of course to first know what the history is, and the ETHW will help provide the source of historical reference info.
- 4.) PERFECT EXAMPLE of the need for better documentation & accessibility of historical info:
 The current pandemic raised questions very early on in the pandemic regarding ASHRAE's historical documentation of the last major pandemic, which was the Spanish Flu of 1918. A research of ASHRAE's own historical archives produced little info about the Spanish Flu. The current pandemic has had outstanding results from the ASHRAE Epidemic Task Force. We need to make sure that this work is preserved for use & reference for when the NEXT pandemic occurs!
 This is just one example of how readily accessible historical info can be applied to ASHRAE's Mission & Vision.

Current members of the partnership:



AIAA = American Institute of Aeronautics and Astronautics

AIChE = American Institute of Chemical Engineers

AIME = American Institute of Mining, Metallurgical, and Petroleum Engineers

AIST = Association for Iron & Steel Technology

ASCE = American Society of Civil Engineers

ASME = American Society of Mechanical Engineers

IEEE = Institute of Electrical & Electronics Engineers

SPE = Society of Petroleum Engineers

SWE = Society of Women Engineers

SME = Society of Mining, Metallurgy & Exploration

United Engineering Foundation



Below info is sourced from ETHW's website:

[ETHW:About - Engineering and Technology History Wiki](#)

What is the Engineering and Technology History Wiki (ETHW)?

The Engineering and Technology History Wiki (ETHW) is a website powered by [MediaWiki](#) with thousands of articles, first hand accounts, oral histories, milestones, archival documents and lesson plans pertaining to the history of technology. The ETHW is one of the world's premier sites for the documentation, analysis, and explanation of the history of technology; the scientists, engineers and business people who made these technologies happen; and on the history of the organizations to which these men and women belonged.

The ETHW is developed by a partnership between the [United Engineering Foundation](#), and the AIAA, AIChE, AIME, ASCE, ASME, IEEE, SPE and SWE. It fosters the creation of narratives that not only document the history of engineering practices but also explain when, how, and why these technologies developed as they did. It uses a wiki-based web platform to foster a collaborative online environment that taps into the collective memories, experiences, and knowledge of engineering's worldwide membership – the men and women who provide the imagination, creativity, and know-how to sustain engineering progress and technological innovation. In time, this site will serve as a central historical repository of all the achievements, ideas, and first-hand knowledge of engineering association members, societies, councils and technical communities. The ETHW will also provide a central location for all materials related to engineering's organizational history.

Although the contributions to this site are restricted to registered users, the ETHW is also dedicated to making the social, economic, political, and technical aspects of the history of technology accessible to all. The general public is invited to explore and learn about the history of the technologies that have shaped and will continue to shape their lives.

What the ETHW Is Not

The ETHW is not a "how-does-technology-work" site. The scope of the ETHW is historical; instead of focusing on the inner workings of technology, it aims to explain how the technology was developed, who were the major players involved, and what long term significance the technologies have. The ETHW is not only an encyclopedia of the history of technology, but it also contains a full range of materials that relate to the legacy of engineering, including personal accounts, documents, and multimedia objects. In that sense, it is a combination reference guide, blog, virtual archive, and on-line community.

Goal

This site is intended to be the premier global record for preserving and interpreting the history of technological innovation and making that history available to the public. The wiki-based ETHW enables the recording of first-hand experiences of people around the world who have developed technologies' products and services into the globally accessible public record. The

ETHW will raise the public visibility of the role and historical contributions of engineers, and related professionals in enhancing the quality of life and the global environment.

Unlike other on-line encyclopedias that may include technological topics, the ETHW will be solely focused on the history of technology. The ETHW's content will also be unique. No other wiki site offers the personal accounts of the technical innovators themselves. In other words, this site serves as a living testament to all the important experiences and contributions made by members and others to technological progress from around the globe. As such, the site will never be complete — it will grow and expand continually. It is the mission of the ETHW to be a forum for the community of engineers and innovators, and those who study their work, a networked repository of their memories, knowledge and achievements, a place to share and explore the history of technological innovation.

The Importance of Shared Experiences

The ETHW enables its members to record their involvement in technological innovation. Through these First-hand Histories, [the ETHW invites and encourages members to share their experiences in developing products and services](#) -- from invention, R&D, design, testing, production and commercialization -- with the world. Ideally these recollections will also include the broader range of experiences that led to members' successes as professionals, including their inspirations, educations, and affiliations. Because of the wiki functionality, the ETHW also enables individuals to contribute their experiences as contributors to a collective First-hand History of a group, such as an R&D lab or design team within a university or corporation.



HISTORICAL COMMITTEE

Minutes

June 24, 2018

ASHRAE Annual Conference Houston

<p><u>Introduction of Members and Visitors:</u></p> <p>Voting Members present Kent Anderson, Chair Bruce Flaniken, Vice Chair Ahmed Alaa El Din Lindsey King Bern Nagengast Eric Sturm Stan Westhoff, Region I Pam Immekus, Region IV</p> <p><u>Incoming Voting Member:</u> Peggy Fritz Branislav Todorovic</p> <p><u>Voting Member via Go to Meeting:</u> Oswaldo Bueno</p> <p><u>Region Historians Present via Go to Meeting:</u> Tom Pollard, Region II Dusty Stoabs, Region VIII Dean Borges, Region X</p> <p><u>BOD Ex-Officio:</u> Doug Cochrane, BOD Ex-Officio</p> <p><u>Coordinating Officer</u> Edward Tsui</p>	<p><u>Guests:</u> Jounghwan Ahn David Arnold H.E. Barney Burroughs, Presidential Member Michael Geselowitz Jeff Haberl Julia Keen Chul Kim Larry Markel Kashif Nawaz Glenn Remington Randy Schecengost</p> <p><u>Staff present:</u> Steve Comstock, staff liaison PEC Vanita Gupta, Director of Marketing, ASHRAE Krys Gilstrap Joslyn Ratcliff Emily Sigman, staff liaison</p>
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Call to Order:

Mr. Anderson called the meeting to order at 8:30 am. He invited all those present to introduce themselves and to tell a little bit about themselves

Review of Agenda:

The agenda was reviewed and accepted.

Current Projects 125th Anniversary: Marketing Promotion Plan

Mrs. Gupta presented the overall marketing promotion plan for the museum and brochure projects for the 125th Anniversary. She shared the photo of the special logo for the 125th. Someone suggested that members could send photos and selfies of themselves using the AASHRAE 125 logo from all over the world.

Dr. Keen reported that there were some proposed budget cuts that would affect three of the projects for the 125th anniversary.

Current Projects 125th Anniversary: Oral Histories Presentation

Ms. Gilstrap presented the concept and plan for filming oral history videos. [Attachment B](#)

Current Projects: IEEE Presentation

Mr. Anderson introduced Mr. Michael Geselowitz, the senior historian for IEEE.

Mr. Geselowitz made a presentation of the various ways IEEE is preserving history. He shared a number of interesting concepts for making history available to the Society, members, and casual users, including web, awards, oral histories, and work through universities. He stressed the importance of getting the study of history into the curriculum of schools and colleges. He suggested the possibility of collaboration between ASHRAE and IEEE. [Attachment C](#)

Mr. Markel raised the question of how to retain young members. General discussion followed.

ExO Presentation:

Mr. Cochrane reviewed the ExO presentation to update what Society has accomplished in the last six months as well as to identify any needs. [Attachment D](#)

Current Projects: ASHRAE Milestone/Landmark Proposal:

Mr. Anderson presented his proposal for an ASHRAE Milestone/Landmark program, possibly tied to the ASHRAE 125th Anniversary. [Attachment E](#)

Motion 2: Mr. Flaniken moved to approve the project proposal. Mr. Westhoff seconded the motion. Approved 6-0-0

Current Projects: MOP Revision:

Mr. Anderson stated that the Historical Committee Manual of Operations (MOP) needed to be revised to reflect the two voting members that were added to the committee beginning SY 2017-18. Mrs. Immekus along with several committee members had worked through revising the document [Attachment F](#)

Motion 3: Mr. Nagengast moved to accept the revisions to the MOP, Mrs. Immekus seconded the motion. Approved 6-0-0

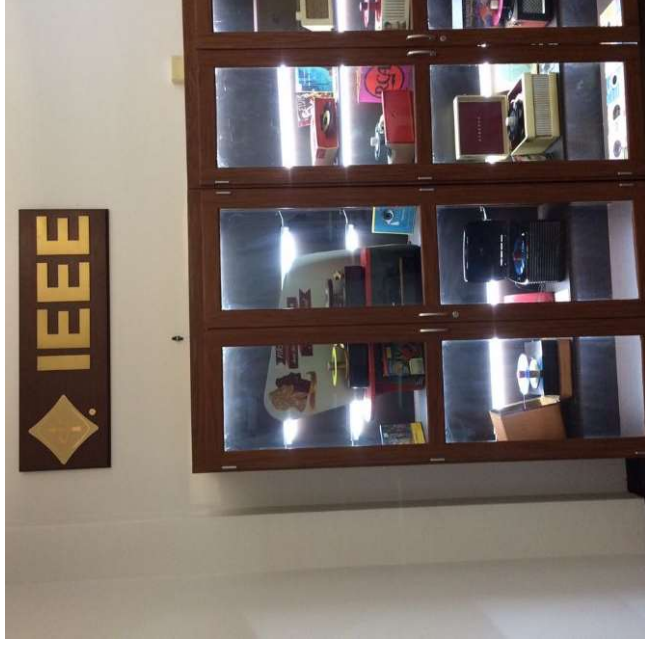
Current Projects: Reference Manual Revisions:

IEEE'S HISTORICAL ACTIVITIES

Dr. Michael Geselowitz, Senior Director

IEEE History Center

June 2018



IEEE History Center



**IEEE History Center
Hoboken, New Jersey, USA**

When is IEEE?

Since 1963 in current form (AIEE + IRE = IEEE)

But, actually, since 1884, IEEE has been fostering technical innovation for the benefit of Humanity.



Celebrating 125 Years
of Engineering the Future

**In 2009, we celebrated our 125th anniversary...
Now we are 133 years young, and we are the
largest technological association in the world**

What is IEEE?

- **The world's largest professional association for the advancement of technology**
 - more than 423,000 members in more than 160 countries, more than 50% outside the U.S.
 - 334 Sections in ten geographic Regions worldwide and numerous chapters, affinity groups and student branches
 - 39 Societies and seven technical councils—including Education Society, Professional Communication Society, SSIT, TEMS
 - more than 1,800 standards (including under development)
 - Approximately 200 transactions, journals, magazines
 - More than 1,800 conferences in 95 countries
 - More than 4 million documents in the IEEE Xplore Digital Library, with more than 8 million downloads each month
 - Roots in electrical, electronic, and computing fields and related areas of science and

History of History at IEEE

- **1963 – Permanent History Committee in very first bylaws of the merged society—largest & one of the oldest technical societies has responsibility to preserve history of technology (and itself)**
- **1980 – History Center professional staff added to assist with centennial celebrations**
- **1990 – Center moved to campus of Rutgers University, which became strategic co-sponsor in the history space – emphasis on research**
- **2000s – emphasis shifts to outreach**
- **2010s – more focus on education within outreach**



Advancing Technology

● **2014 – Center relocates to Stevens Institute of Technology**

The IEEE History Center : Mission

**Guided by the IEEE History Committee
(which reports to the IEEE Board of Directors)**

Mission:

To foster preservation of, research into, and dissemination of information on the history of IEEE-related technologies, as well as IEEE, its members, and their professions and industries

**Produces
better, more
well-rounded
engineers**

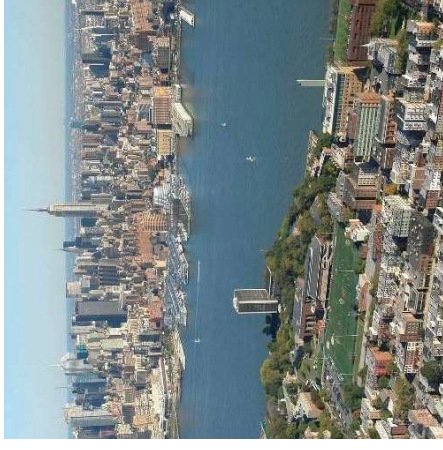
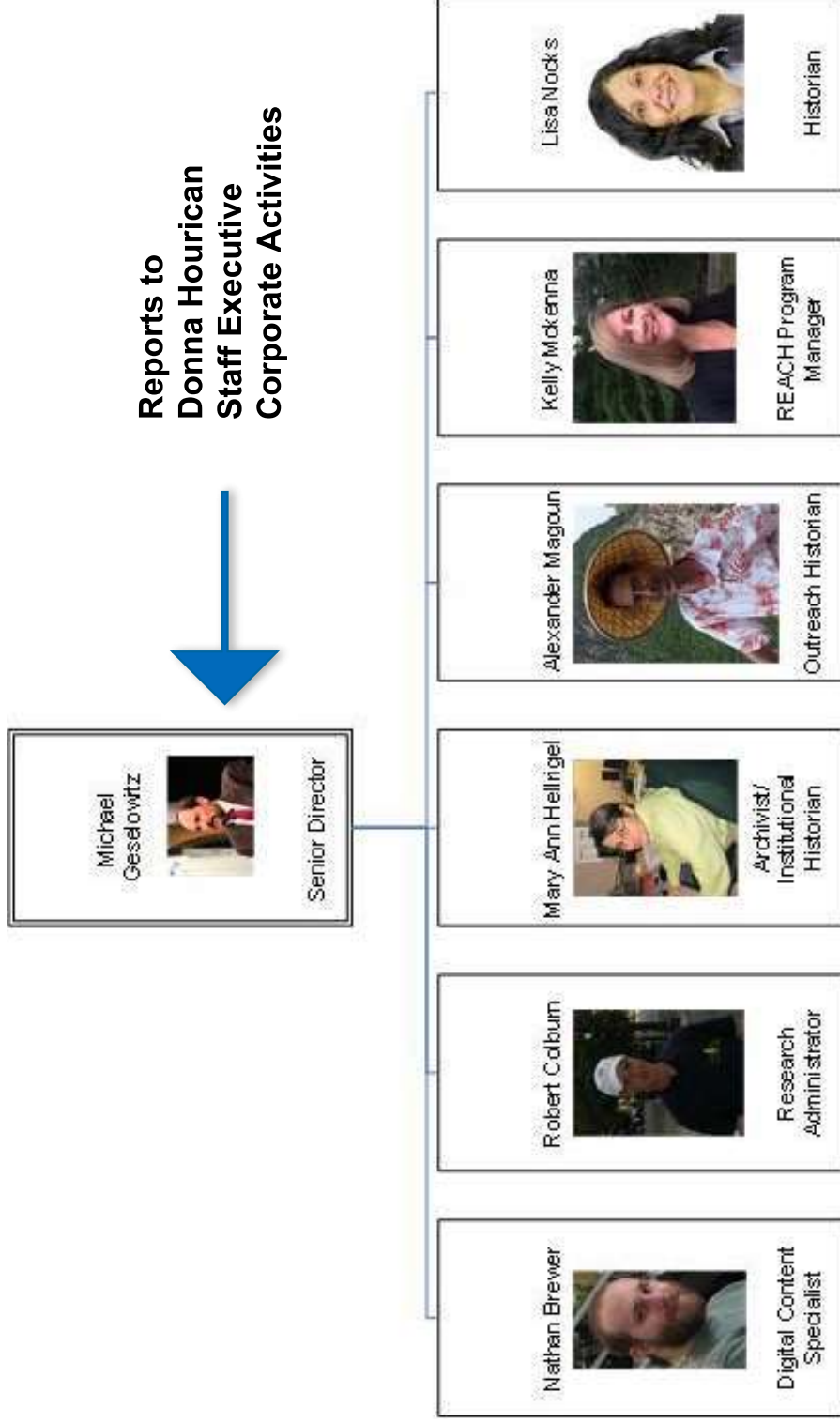
**Raises
awareness
and
appreciation
of the
important
role
engineers
play in
society**

**Corrects
misconcep-tio
ns of
engineers and
their
profession**

**Enhances the
image of
engineers and
elevates the
prestige of
the
profession in
general and
IEEE in
particular**

**Improves
technological
literacy
among
citizenry of an
increasingly
technological
society**

IEEE History Center Organization Corporate Activities Department



THE IEEE HISTORY CENTER SUPPORT TOTAL EXPENSES = \$1.3M

**IEEE Operating Funds
(46%)
(=about 1 / 10% of
IEEE Operating Budget)**



**Stevens Institute of Technology
(strategic educational partner)
(in-kind)**



**IEEE Foundation
IEEE Foundation, through
Annual fundraising (10%)
External grant support (3%)
Planned giving Endowment (13%)
REACH Fund (28%)**



THE IEEE HISTORY CENTER— RESOURCES AND PROGRAMS



Wealth of
information
about global
history of
engineering
delivered
through the
Engineering &
Technology
History Wiki
(ethw.org)



Oral Histories



First-Hand Histories



IEEE Milestones



University Education



**Pre-University Education:
IEEE REACH**



**IEEE Archives/
Institutional history**

Engineering & Technology History Wiki


- **Engineering & Technology History Wiki**
www.ethw.org – developed by History Center and maintained on behalf of a consortium of engineering associations – IEEE, AIChE, AIME, ASCE, ASME, SPE, SWE (and ASEE has just agreed to join!)
 - 1.3 million annual sessions (1.8 million page views; 1.1 million unique users) in 2017 (about 20% increase over 2016, thanks to Google Ad Grant)
 - Growth in all content areas (pages in 1000s)
 - Innovation map
 - Beginning of 2018 launched enhanced timeline feature (NIC grant)

Oral Histories / First-hand Histories

Engineering and Technology History Wiki

Oral-History:Vladimir Zworykin

About Vladimir Zworykin



Dr. Vladimir Zworykin's illustrious career at the GE, Westinghouse Institute of Technology in Russia paved the way for his career in electronics. Zworykin received his electrical engineering degree from the Institute in 1912, studying under Professor Boris Rosing, who had built an early cathode ray television in 1908. He began graduate study at the College de France, engaging in X-ray research under Professor Paul Langevin, but returned to the United States in 1914. After the war, he emigrated to the United States, and began work at the Westinghouse Electric Company in 1920. He obtained his Ph.D. in electrical engineering from the University of Pittsburgh in 1926. He patented his first television camera tube in 1923 and his first television receiver in 1926. In 1929, he went to work at RCA, where he developed the first television camera tube and then patented the iconoscope in 1931. When RCA opened its Princeton Laboratory in 1941, Zworykin moved there, in 1941 he oversaw James Hilliers' invention of the electron microscope. During World War II, he directed military research on infrared fire control, television guided missiles, and radar. He was named honorary vice president of the company. He served as director of the Medical Electronics Center of the Rockefeller Institute for Medical Research from 1954 to 1962. In 1952, Zworykin received the IEEE Edison Medal for a career of meritorious achievement. He died in Princeton, New Jersey in July 1982.

This interview briefly traces Zworykin's career, concentrating upon his iconoscope development for RCA, the first television broadcasts, and his later research in medical electronics. Zworykin discusses television broadcasting's impact, reminisces about his relationship with RCA's CEO David Sarnoff, and assesses television programming for popular entertainment. He also explains his research on an electronic method of administering anesthesia, and his work on a new type of television picture tube. The interview concludes with discussing Zworykin's role as founder of the international Federation of Medical Electronics.


About the Interview

Vladimir Zworykin: An Interview Conducted by Mark Heyer, IEEE History Center, July 4, 1975

Oral Histories: Over 800 transcripts on the ETHW

Engineering and Technology History Wiki

First-Hand:Starting Up Cetus, the First Biotechnology Company - 1973 to 1982



A response was written to the *First Hand History* referring some of its claims

Chapter 1 - Cetus Beginning

Submitted by Roy D. Merrill, IEEE Senior Life Member

The genesis for CetusTM, the first biotechnology company, began with three parityTM who graduated from MIT in 1968. One of the three, Dr. Donald Graser, an engineering doctor about a decade before he joined in the Stanford MBA program, had a vision of what he wanted to do. He had a job with a venture capital company for an annual salary of \$1. His sole intent was to learn that business first hand while making as many contacts among the successful Silicon Valley entrepreneurs and venture capitalists as possible.

Peers first attempted to build a company based on developing a simple thermometer using the behavior of supersaturated liquid under small temperature changes. As a part time professor at a university clinic, doctor while in graduate school, he was a top expert on the behavior of supersaturated liquids; Dr. Donald Graser, chief of the Virus Laboratory and graduate professor at UC Berkeley. He had been awarded the Physics Nobel Prize for inventing the bubble chamber, a device used as a high energy atomic particle diagnostic tool based on the behavior of a supersaturated fluid when subjected to small changes in partial pressure - specifically, under the right conditions, a stream of bubbles will form along the path of a high energy particle passing through the liquid.

After studying the thermometer approach, Dr. Graser concluded it was not practical, and recommended it be dropped. Instead he recommended a device used as a high energy atomic particle diagnostic tool based on the behavior of a supersaturated fluid when subjected to small changes in partial pressure - specifically, under the right conditions, a stream of bubbles will form along the path of a high energy particle passing through the liquid.

well known electrical property: the electrical field strength measured from the edge of a straight charged wire varies linearly with perpendicular distance where as the field propagating from a point source charge varies exponentially with distance. A similar characteristic exists in microbiology petri dish assays where the distance to the edge of an inhibitor zone on the petri agar indicator lawn measured from a 4 mm pad strip saturated with antibiotic varies linearly with drug concentration while on the other hand this distance varies exponentially with drug concentration. An illustration of at least one order of magnitude difference in behavior of these two systems is shown in the attached graph.

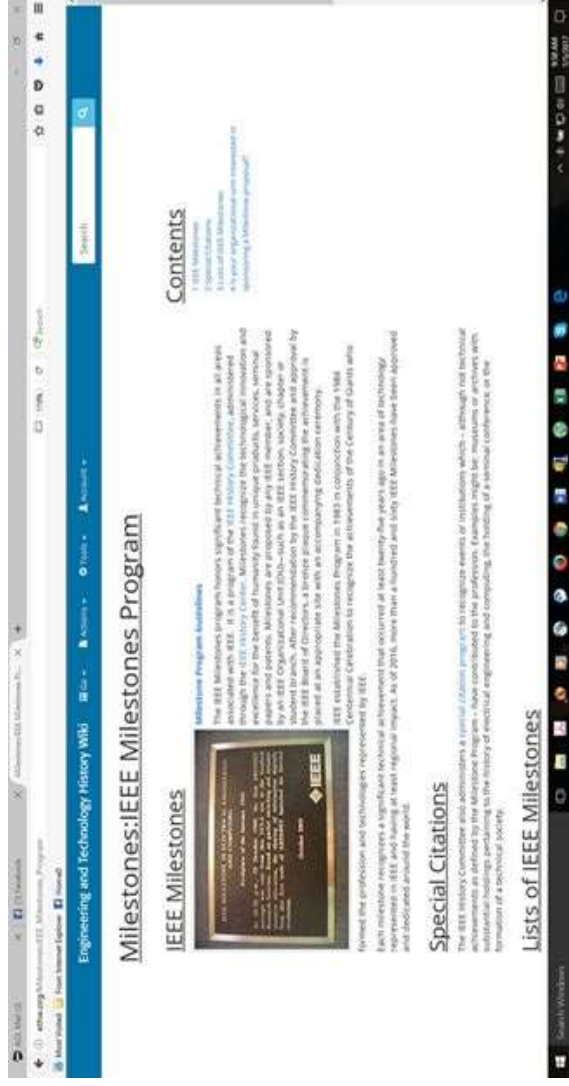
Contents

- 1 About the Interview
- 2 Copyright Statement
- 3 Interview
- 4 Researches on the Westinghouse in RCA
- 5 First work on television picture tube
- 6 Contracts Kenescope and Iconoscope
- 7 Describes own journey from tubes to photo-cells to stored images to television
- 8 First television research group
- 9 Television projects with David Sarnoff
- 10 First demonstration of short distance television
- 11 Drove of World War II brings focus on television
- 12 Television equipment provided to Russia
- 13 Postwar commercial broadcasting
- 14 Develops technology for medical anesthesia
- 15 Researches electronic applications of anesthesia
- 16 Investigates electronic methods of administering anesthesia
- 17 Develops circuit for controller

First-Hand Histories: Over 300 on the ETHW



IEEE Milestones



- **9 approvals in 2017; 14 dedications in 6 Regions; full gamut of IEEE fields of interest and 6 decades of history**

- **188 total dedicated so far (plus two special citations), 3 so far this year—last month, 1979 silicon switch, UKRI; this month, Moore’s Law (1965), CA**

- **Endorsed by anv OU**

University Activities

- **Awards: Life Member History Fellowship; William And Joyce Middleton Electrical Engineering History Book Award; SHOT IEEE/Finn Paper Prize; Life Member Internship**
- **Publications: Numerous articles on the ETHW and in IEEE journals, newsletters, conference proceedings; top *Institute* articles; managing monthly history feature for *Proceedings of the IEEE***

- **Lectures & conferences**
- **Library and miscellaneous collections**
- **Stevens courses, symposia, conferences**



University Activities

The screenshot shows a web browser window with the following content:

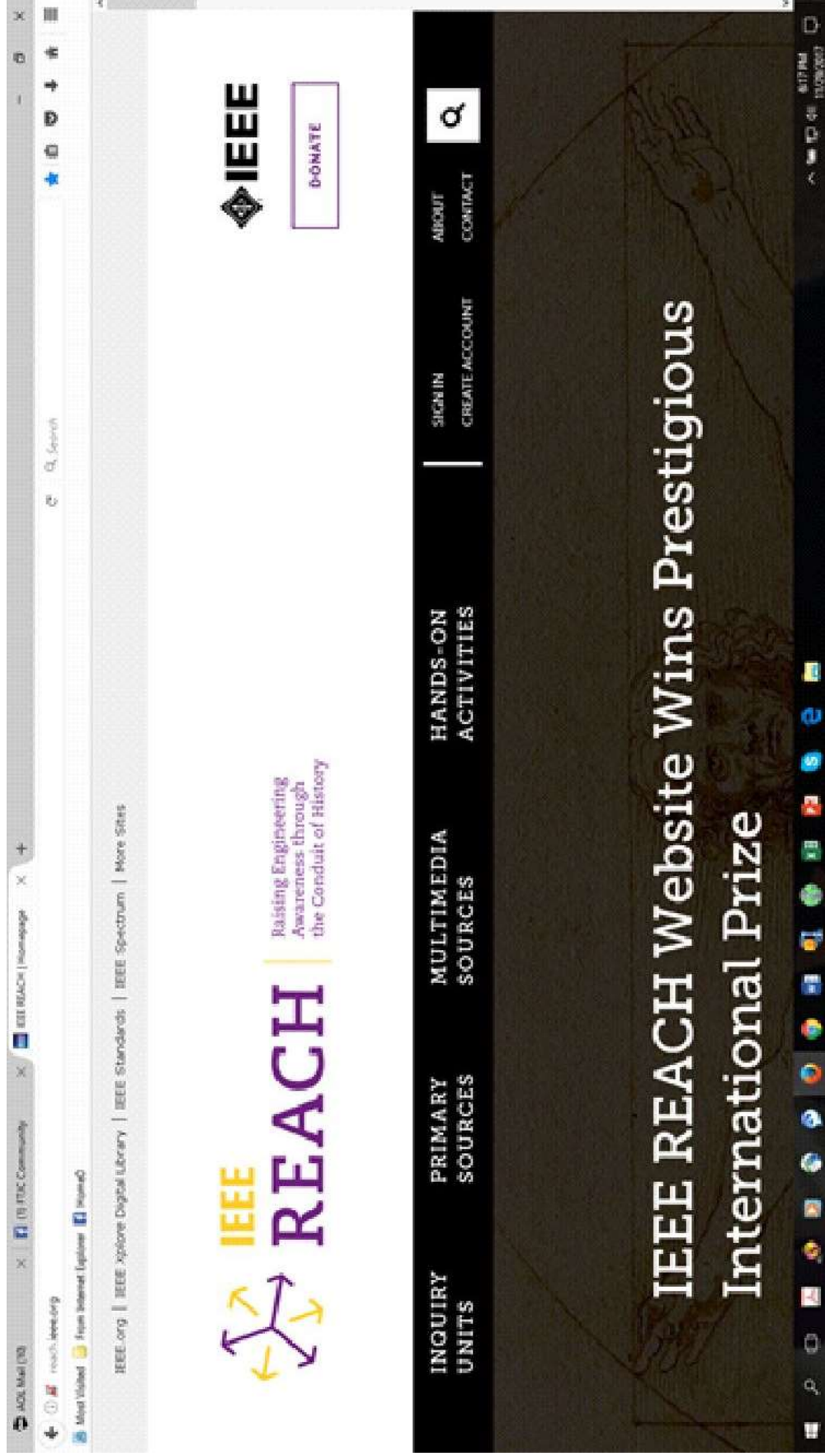
- Browser Tab:** Technologies of Frankenstein... X
- Address Bar:** frankenstein2018.org
- Navigation:** Home, Call for Papers: CLOSED, Location, Register
- Main Content:**
 - Technologies of Frankenstein**
A Conference at the Stevens Institute of Technology, March 2018
 - Image:** A composite illustration of a man in a top hat (Frankenstein) and a green, muscular creature (Frankenstein's monster) standing on a yellow platform. A lightning bolt strikes a mountain in the background, and a pencil is shown drawing the scene.
 - Event Details:**
 - Technologies of Frankenstein, 1818-2018**
 - March 7-9, 2018**
 - Stevens Institute of Technology, Hoboken, New Jersey, USA**
- Taskbar:** Shows various application icons and the system clock: 6:33 PM, 11/29/2017.

IEEE REACH: K-12 History of Technology Curriculum

- **Material is Inquiry-based C3 compatible (National Council for the Social Studies)**
- **Beta site (<http://reach.ieee.org>) launched in December 2016 with two units**
- **Has six units (three piloted in person)**
- **Big outreach push—has over 300 registered users with capacity to impact tens of thousands of students; ran teacher PDW**
- **Won Ayrton Prize for Digital Engagement from the British Society for the History of Science**



IEEE REACH



IEEE Archives/Institutional History



- **Often do anniversary projects funded by Societies**
- **Working on “History of IEEE since 1984,” funded by IEEE Societies**

Questions?





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Joyce Abrams
Director Member Services

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TO: Don Brandt, Publishing and Education Council Chair
Mark Owen, Publishing and Education Council Staff Liaison

FROM: Joyce Abrams

DATE: December 7, 2021

SUBJECT: Members Council Referrals to Publishing and Education Council

During the Members Council November 2021 virtual fall meeting, the council referred the motions below to Publishing and Education Council for consideration. Please note the motions below were not vetted by Members Council. I appreciate your keeping me advised of your actions. Let me know if you have any questions. Thank you.

Memphis Chapter – Motion 6A (11/4/2021):

That Regional Historians be added to the Society Historical Committee as full voting members with all rights, and privileges, and responsibilities pertaining thereto.

Background: Currently, the Regional Historians are allowed and encouraged to attend the Historical Committee meetings as guests. They, in effect, have a voice but no vote. There is a vast divide between the work and objectives of the Historical Committee and the expectations of the Regional and Chapter Historians, to the point that replies to Regional and Chapter inquiries of the Historical, Committee are delayed or go completely unanswered. Further, this disconnect between the Historical Committee and the grassroots (e.g. Regions and Chapters) is made publicly obvious by the resources on the Society Historical Committee's webpage being so old and out of date. In at least one case, the PowerPoint presentation is so outdated as to have the previous ASHRAE logo from nearly a decade ago still on it. Grassroots representation by, and voting authority of, Regional Historians would keep the Historical Committee much more in tune and in contact with the Grassroots and would likely result in a better historical archive and more participation in the Gold Ribbon and Lou Flagg awards programs. This would in turn incentivize Chapters to appoint active Chapter Historians.

Fiscal Impact: \$15,000.00 per year (15 Historians x 2 Conferences/yr. x \$500 Avg. Airfare)

Kansas City Chapter – Motion 6B (11/4/2021):

That non-current ASHRAE Handbook editions be made available to dues-paying ASHRAE members (Full or Associate Member grade) in an electronic format, in lieu of the hardbound handbook.

Background: Many ASHRAE Members have kept older versions of ASHRAE Handbooks for reference in hard copy, however new Members do not have access to older versions of the Handbook and many people have been converting to utilize more digital content.

This could be offered as either a member benefit or an additional revenue stream.

Fiscal Impact: \$2,000-3,000.

Hellenic Chapter – Motion 24 (11/4/2021):

ASHRAE to include, as per its policy, SI units in its online and instructor led training courses.

Background: ASHRAE's greatest assets are its technical expertise and training, and thus attracts and sustains members throughout the world. However, most of the training courses are in IP units and practically impossible to use in countries that use SI units. There is also a need to consider international regulations and practices when adapting the material for a global audience.

Fiscal Impact: TBD.