



Publishing and Education Council (PEC)

Tuesday, February 2, 2021

Virtual Annual Meeting

Voting Members

William Dean
Donald Brandt
Kelley Cramm
Katherine Hammack
Ahmed Alaa Eldin Mohamed
Randy Schrecengost
Chandra Sekhar
Cameron Labunski
Cynthia Callaway
Larry Fisher
Mark Fly
Ashley Weekly
Kurt Monteiro
Michael Patton
Bass Abushakra
Dean Borges
Spencer Morasch
Jeremy Smith
Keith Reihl
James Vallort
Hugh McMillan
Adeeba Mehboob
Mark Owen

Chair
Vice Chair
Director/Publications BOD ExO
Director/Handbook BOD ExO
Director/Historical BOD ExO
Director/TEC BOD ExO
Director/Certification BOD ExO
Past Certification
Past Handbook
Past TEC
Past Publications
Certification Chair
Certification VC
Handbook Chair
Handbook VC
Historical Chair
Historical VC
TEC Chair
TEC VC
TEC VC
Publications Chair
Publications VC
Staff Liaison

Visitors

Jeff Littleton
Eunice Njeru
David Soltis
Tim Kline
Heather Kennedy
Karen Murray
Cindy Michaels
Sarah Foster

Additional Distribution:

Jeff Littleton, Executive Vice President, Candace DeVaughn,
ASHRAE Staff Directors, Publications & Education Managers

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Motions

Meeting of February 2, 2021

No.	Page	Motion
1	4 *	Approved the draft minutes as distributed for the June 25, 2020 Virtual Annual Meeting. Approved 8-0-0, CNV
2	5 *	Council did not approve ASHRAE make all standards accessible for viewing over the internet at no cost. <u>Background:</u> Mr. Owen reported that the major standards (particularly those referenced in codes) from which ASHRAE derives most of its standards sale's revenue have been posted on the ASHRAE website in read-only format for several years. Although sales of PDFs suggest that the PDF format represents a significant enough improvement over the read-only format that customers will continue to purchase PDFs of standards at some level, staff estimates the fiscal impact of including the remainder of standards on the read-only site at -\$85k to -\$100k annually. Only about 2.8% of read-only viewers click through to buy the PDF in the bookstore. Failed 0-9-0, CNV

Action Items

Meeting of February 2, 2021

No.	Responsible	Action
1	Staff	Post the approved minutes for June 25, 2020 Virtual Annual Meeting on the PEC page of the ASHRAE website and the PEC Basecamp website.
2	Owen	Complete. Investigate and report at the next PEC meeting the feasibility of posting tables of contents for all standards and instituting a registration requirement for viewers of the free read-only postings.

1. Call to Order

Mr. Dean called the meeting to order at 8:00 a.m.

2. ASHRAE Code of Ethics Commitment

Mr. Dean reviewed with the council the ASHRAE Code of Ethics.

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>)

3. Introduction of Members and Visitors

Roll call was conducted with an introduction of staff and other visitors.

4. Review of Agenda

Mr. Dean reviewed the agenda with the council.

5. Minutes - Meeting of June 25, 2020

It was moved and seconded:

(1) Approve the draft minutes as distributed for the June 25, 2020 Virtual Annual Meeting.

MOTION (1) Approved 8-0-0, CNV

An action was assigned to staff to post the approved minutes on the PEC page of the ASHRAE website and the PEC Basecamp website. **(ACTION ITEM 1)**

6. Review of Action Items - Meeting of June 25, 2020

Mr. Owen reviewed actions items from the previous meeting with council members.

No.	Responsible	Action
1	Staff	Post the approved minutes for February 3, 2020 Orlando, FL on the PEC page of the ASHRAE website and the PEC Basecamp website. Complete.
2	Staff	Standards Committee recommends that Technology Council recommend to Publishing and Education Council that ASHRAE make all standards accessible for viewing over the internet at no cost.

Background: In the first recommendation from the *Report of the Presidential ad hoc Committee on ASHRAE's Role in the Globalization of Standards*, in order to increase the international use and influence of ASHRAE standards, consider changing the business model for standards distribution so that ASHRAE standards are available over the internet at no cost, thus enhancing their availability, while retaining fees for the sale of printed copies of standards. This would bring ASHRAE's policy in line with that of the Internet Engineering Task Force, whose Internet standards are arguably the most widely adopted and successful in the world. *(Tech Council vote: 12-10, CNV)*

Complete.

It was moved and seconded:

(2) That ASHRAE make all standards accessible for viewing over the internet at no cost.

Mr. Owen reported that the major standards (particularly those referenced in codes) from which ASHRAE derives most of its standards sale's revenue have been posted on the ASHRAE website in read-only format for several years. Although sales of PDFs suggest that the PDF format represents a significant enough improvement over the read-only format that customers will continue to purchase PDFs of standards at some level, staff estimates the fiscal impact of including the remainder of standards on the read-only site at -\$85k to -\$100k annually. Only about 2.8% of read-only viewers click through to buy the PDF in the bookstore.

Council members discussed some options that could be offered instead, such as, posting the tables of contents for all standards. Mr. Owen suggested a registration requirement for viewers as an opportunity to follow up for sales.

MOTION (2) Failed 0-9-0, CNV

An action item was assigned to Mr. Owen to investigate and report at the next PEC meeting regarding the feasibility of posting tables of contents for all standards and instituting a registration requirement for viewers of the free read-only postings. **(ACTION ITEM 2)**

7. Review of PEC MBOs

Mr. Dean reviewed the PEC MBOs with the council. Updates included on MBO List shown in **Attachment A.**

8. Ad Hoc Committee Reports

8.1 Global Training Center GTC (Attachment B)

Mr. Alaa reported on the Global Training Center's challenges due to the Covid-19 pandemic and issues with developing economies. The ad hoc reported on the financial performance and the planned steps moving forward.

Mr. Alaa requested additional help from ASHRAE in marketing and more involvement in RAL ad hocs, such as, Strategic Planning Committee, Vision/Advisory Committee and Sustainable Operations Committee.

9. Subcommittee Reports

9.1 Fiscal

Ms. Cramm gave the subcommittee report. **(Attachment C)**

Ms. Cramm reported that action item was assigned to all committees to send a list of data points they would like included on department specific dashboards to Ms. Cramm, Mr. Owen and his assistant by March 5, 2021. *Attachment A of Fiscal Subcommittee Report to PEC* shows the Publishing & Education Dashboard current breakdown of financial information by department.

Ms. Cramm reported that in advertising sales revenue for all programs including advertising from ASHRAE Journal print and digital editions, ASHRAE.org, supplier webinars, Handbook Online, AMCA inmotion, newsletters and sponsorships are approximately \$350,000 less than budget and \$200,000 less than FY2019-20 actual sales due to cancelation of AHR Expo 2021 and AHR-Mexico 2020, COVID-19 pandemic as well as attrition of magazine advertising in general. Advertising cancellations attributed to the pandemic to date totaled \$115,000 in FY20 and an additional \$400,000 in FY21 reductions and cancelations. New programs have been deferred or canceled due to uncertainty for HVACR engineering industry and the global economy. *(Attachment B Fiscal Subcommittee of PEC Report to PEC)*

In response several new programs and expanded existing programs were created including new webinars, additional advertising in newsletters, sponsored product listings, sponsored email announcements, supplier video demonstrations and expanded product sections in ASHRAE Journal. To reduce expenses, staff is eliminating controlled circulation of ASHRAE Journal to nonmembers and suspending the bonus program for its independent sales representatives for January sales associated with AHR Expo.

Ms. Cramm reported on the Products Subcommittee Report to Fiscal Subcommittee. *(Attachment C of Fiscal Subcommittee Report to PEC)*

Handbook Committee (HBC) had reported to the Products Subcommittee that an ad-hoc was appointed to investigate reorganizing the chapters in the volume to balance out the page counts. *(Attachment A Products Subcommittee Report to Fiscal Subcommittee)*

Historical Committee has chosen the next subjects for their Leadership Recalls interviews and are investigating reinstituting the Historians Newsletter. *(Attachment B Publications Committee Report to Fiscal Subcommittee)*

Publications Committee drafted survey questions regarding Presidential Member Tim Wentz's idea for a series of Application Guides, and a survey was sent to all ASHRAE members in December 2020. Results of the survey are detailed in *Attachment C of Products Subcommittee Report to Fiscal Subcommittee* and the detailed results are located on Basecamp.

Ms. Cramm gave the research Journal Subcommittee report (*Attachment D of Products Subcommittee Report*). Ms. Cramm briefly explained the main difference between *STBE* and the ASHRAE Journal was that papers that were too long and or technical for the ASHRAE Journal or ASHRAE Transactions needed a publication home so *Science and Technology for the Built Environment (STBE)* was created. Mr. Owen has an action item to develop some additional promotion of *STBE* which could include a reminder that ASHRAE Members have free access to *STBE* papers through the ASHRAE website.

Performance details from the Taylor & Francis Publisher's Report shown in *Attachment A of the Research Journal Subcommittee Report* and details on submissions and reviews are show in Dr. Spitler's Editor's Report shown in *Attachment B of the Research Journal Subcommittee Report*.

Mr. Owen pointed out that the improvement of the Impact Factor of *STBE* has been a long-term effort by the editor and the publisher and represents an accomplishment worth highlighting.

Ms. Cramm reported on the PEC – Professional Development Subcommittee Report (*Attachment D of Fiscal Subcommittee Report to PEC*) The Certification Study Guide: Certified HVAC Designer (CHD) launched in October 2020 and has sold 113 copies. During the meeting Mr. Brandt asked if a study guide will be developed for all certification programs and Mr. Owen explained that this was the first and depending on interest and budget more will be developed. Ms. Weekly also stated that with limited funds it was important to evaluate the need for a guide for some certification programs that are not performing as well.

Training & Education Committee (TEC) Report is shown as (*Attachment B Professional Development SC Report to Fiscal*). Online ALI HVAC Design training began in December 2020, and Online HVAC Design training presented through the Global Training Center begins in late January 2021. The GTC training is tailored to the Middle East, Northern Africa and parts of Asia. The training costs are lower, and prices are available for developing economies. Procedures are in place to guide registrants to the appropriate training based on their general location.

9.2 Planning

Ms. Hammack gave the subcommittee report. (**Attachment D**)

In the report to Planning Subcommittee TEC reported on a plan to review and revise select Self Directed Learning (SDL) courses continues including the development of slides to accompany courses. Mr. Fisher asked how decisions were made for reviewing and updating courses. Mr. Smith explained that although details for an updating schedule has yet to be finalized, some basic courses simply need slides or new slides as the content has not changed over time, such as, the load calculations course.

During the Planning Subcommittee Mr. Fisher commented that Government Affairs Committee has been producing the Public Policy Information Bulletin (PPIB) and asked the subcommittee if this was an official ASHRAE Publication and should PEC have oversight of it. Ms. Hammack explained the PPIB gave a summary of the ASHRAE publications for government officials and a summary of government activities for ASHRAE members. Mr. Brandt reported that the PPIB was

produced by the Alice Yates at the ASHRAE Washing Office and reviewed by Technology Council and ASHRAE staff. After discussion, the subcommittee concluded that the PPIB is a newsletter and does not require any further review by the PEC.

Planning Subcommittee discussed the Global Training Center Ad Hoc Committee (GTC) and to what group it would be reporting to within the new PEC structure. Since it is an Ad Hoc it will report this year directly to the PEC. After some discussion, Ms. Hammack assigned a small subcommittee an action item to review the reporting structure and report back to the subcommittee if the GTC should report to TEC, the Professional Development Subcommittee or continue reporting to the PEC.

9.3 Products

Mr. Schrecengost gave the subcommittee report. **(Attachment E)**

The Handbook Committee (HBC) Report to the subcommittee was given by Mr. Patton and explained that Anthony Young gave a presentation from TC 9.8 on a new chapter proposal for Airport Terminals. The committee will review and reply within a month. *(Attachment A of the Products Subcommittee Report To PEC)*

HBC also discussed ideas to encourage HB Online updates included obtaining funds for gift cards to primary authors.

Mr. Borges gave the Historical Committee Report to the subcommittee shown as *Attachment B of the Products Subcommittee Report To PEC*. Mr. Borges reported all projects for 125th anniversary have been completed with one cancelled due to the cancellation of the in-person conference.

Historical Committee have chosen Shelia Hayter and Barney Burroughs for the next Leadership Voices interviews to be filmed at the next in-person meeting.

A report on the status of PAOE points is shown in *Attachment A of the Historical Committee Report to Products Subcommittee* and the committee's MBOs are shown in *Attachment B of the Historical Committee Report to Products Subcommittee*

Mr. McMillan gave the Publications Committee Report to the Products Subcommittee. *(Attachment C of the Products Subcommittee report to PEC)*

Mr. McMillan reported the committee selected the winner for the 2020 Journal Paper Award, the title and authors were forwarded to the Honors and Awards Committee for award presentation at the 2021 ASHRAE Annual Conference.

Publications Committee MBOs for the 2020-2021 Society year are included in *Attachment A of the Publications Communications Report to Products Subcommittee*.

Mr. McMillan, Publications Committee Chair, discussed the need to update, the very popular HVAC Simplified, which is being used as a textbook but references out of date ASHRAE Standards. The cognizant Technical Committee was TC7.1 but has been moved to TC 9.1 which

has not responded to the Publications Committee. Publications Committee has informed the TAC Chair. Ms. Cramm is a member of TC 9.1 and assured Mr. McMillan that HVAC Simplified is on their agenda but they need to discuss the possible need for an academic to participate in an update of a textbook.

Mr. Dean requested the Products Subcommittee to facilitate any issues with communication between groups and Mr. Morasch informed the subcommittee that he is a member of the Streamline Committee and they are tasked with assisting communication between ASHRAE groups. Anyone can email him directly with their issues or concerns and he will take them directly to that committee.

9.4 Professional Development

Mr. Sehkar gave the subcommittee report. **(Attachment F)**

Certification Committee reported it has completed its annual, ANSI required, Management System Review of the effectiveness needed improvements for certification services and the remote online proctored certification examination launched fall 2020 with over 80% of examinees took advantage of this new service.

Ms. Weekly reported to the subcommittee that Certification Digital Badging has been very successful with over 900 badges claimed, over 500 shares to LinkedIn and over 10,000 badge views in all media.

Mr. Smith gave the Training & Education Committee (TEC) Report shown as *Attachment B of the Professional Development Subcommittee Report to PEC* including a comparison of 2020-21 to 2019-20 ALI course registrations and a list SARS Cov-2 related courses are offered.

TEC approved a motion from Members Council “That Society expand the eLearning Corporate training program to be used by ASHRAE chapters beginning January 2021.” A program already exists for chapters to purchase eLearning courses at a discounted rate.

TEC reported the committee is working to review and revise select Self Directed Learning (SDL) courses continues including the development of slides to accompany courses. Mr. Owen reported to the subcommittee that funding availability is a constraint due, in part, to the loss of income from cancellation of the Winter Conference resulting the freezing of some programs and projects. During the subcommittee meeting an action item was assigned to TEC to include the course updating schedule will be included with the subcommittees report to PEC.

TEC also reported that eLearning has seen a substantial increase in subscription revenue and is on track to make the forecast for the 2020-2021 fiscal year and is continuing its course updates with a priority on Fundamental Courses, which have proven to be the most popular with corporate customers.

9.5 Research Journal (Attachment G)

Ms. Cramm reported the Publisher's Report shown in *Attachment A of the Research Journal Subcommittee Report to PEC* includes the following highlights:

- STBE published 129 articles in 2019, 10 of which were Open Access.
- There were 49,095 STBE article downloads in 2020 YTD; 65% higher than 2019 YTD.
- Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP)' by Omer Sarfraz & Christian K. Bach, was the most downloaded article with 2,236 downloads.
- The top Altmetric-scoring article was 'Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)' by Mehdi Mehrabi & David Yuill, scoring 10.
- The top cited article was 'A review of fault detection and diagnostics methods for building systems' by Woohyun Kim, with 34 citations.
- The 2019 Impact Factor is 1.356, ranking 42/63 in the Construction & Building Technology JCR category.
- The journal's 2019 CiteScore is 2.6, ranking 32/83 in the Fluid Flow and Transfer Processes Scopus category.

11. Items Referred by PEC to Other Groups

Mr. Owen reported on referrals made to PEC.

11.1 Motion 10.d (11/10/2020) – Evansville Chapter:

That Society expand the eLearning Corporate training program to be used by ASHRAE chapters beginning January 2021.

Background: ASHRAE continues to develop excellent eLearning modules. Some members have expressed the courses are expensive and that attending in a group setting is more conducive to learning. Currently eLearning On Demand is available at discounted rates to private companies and firms.

Benefits of providing the Chapters access to discounted group rates:

1. Picking subjects and scheduling sessions will cause more recognition of the available eLearning modules, and possibly drive more individual eLearning revenue.
2. Non-members may be more interested in joining ASHRAE to receive the benefit of attending courses with a group of peers, both for the comradery and the financial discount.
3. Chapters could also supplement the costs as a further membership incentive or invite corporate sponsorship of sessions to help reduce the cost to members because the sponsors believe in the objects of the material being offered.

Fiscal Impact: This may cause an increase in total revenue for eLearning due to the Chapters organizing sessions and promoting ASHRAE's eLearning more.

Note: The above motion has not been vetted by Members Council.

PEC response: Although ASHRAE eLearning courses are not designed or suitable for group learning sessions, they are currently offered to individual Members at a 25% discount. In addition, discounts are available to chapters as well as corporate customers for purchase of a

certain number of eLearning users: <https://www.ashrae.org/professional-development/elearning-on-demand/corporate-program>. For chapters wanting instructor-led online or in-person group training sessions, those can be scheduled by contacting ASHRAE Professional Development staff manager Karen Murray (kmurray@ashrae.org). An action item was also assigned to Jeremy Smith, Chair of the Training and Education Committee, to ask the Evansville Chapter for clarification and confirmation of the type(s) of training desired.

11.2 Motion 10.e (11/10/2020) – CARICOM Chapter:

That Society grant temporary access to the ASHRAE Design Standards in searchable PDF format to all competitors in the Student Design Competition, over the duration of the competition.

Background: Due to the physical distance within our chapter, it has become difficult for our Student Members to participate in any of ASHRAE's design competitions due to the limited accessibility to code and standards within their geographic location. In its current format, the Faculty Advisor would have to be available whenever students have/need to access the standards for use. Our suggestion is to give temporary access to ONLY Participating Student Members who have registered for this competition for the duration of this competition, to ensure No Student participating is left behind and all participants are given access to the necessary resources.

Fiscal Impact: None, Society already has all necessary resources to accomplish this.

Note: This motion has not been vetted. Motion 10.e (11/10/2020) as shown above was referred to the Student Activities Committee and Publishing Education Council for comment and to determine fiscal impact.

PEC Response: Requests for complimentary access to ASHRAE publications should be sent to the Director of PEC, Mark Owen (mowen@ashrae.org) and should include the specific publications to which access is desired. If the CARICOM Chapter or any design team provides such a list, the best option for access for the students participating in the competition can be selected. Many ASHRAE Standards are already available for free read-only access on the ASHRAE website here: [Read-Only Versions of ASHRAE Standards](#).

11.3 Motion 10.g (11/10/2020) – Israeli Chapter:

That the society recognizes and approves the Israeli Chapter's biannual HVAC training for young engineers and project managers and schedules a CHD exam at the end of the course to benefit participants in having an international accreditation finishing their training.

Background: The Israeli Chapter, in cooperation with the Israeli Electricity, Electronic and Energy Society (SEEEI), holds two annual comprehensive and extensive HVAC training courses of 64 hours each (16 sessions of four academic equivalent hours) with 20-25 participants (young engineers). The sessions are administered and led by Israel's most distinguished engineers and have been running successfully for the past four years.

The course was designed and approved by Engineer Avraham Menashe, VP ASHRAE Israel and Chair of HVAC and Energy at SEEEI.

The Israeli Chapter request to schedule the courses in collaboration with ASHRAE so that they coincide with the society's CHD certificate exam. This will benefit the Israeli Chapter participants in having an international accreditation upon finishing their training and enable participants to undertake CHD exams to be held during the bi-annual Israeli event. Course description and syllabi will be sent separately.

Fiscal Impact: "Positive, TBD (to be determined)."

Note: The above motion has not been vetted.

PEC Response: In addressing this motion, the Certification Committee expresses its full support of the Israeli Chapter's professional development efforts, and reports that scheduling the CHD exam for the end of the Chapter's HVAC training course can be done simply by contacting staff Manager of Certification, Tim Kline (tkline@ashrae.org). ASHRAE Learning Institute (ALI) does not have a role in recognizing or approving Chapter-developed trainings and does not guarantee that a participant's completion of any training would provide a participant with competency in the body of knowledge needed to pass the CHD exam. However, ASHRAE Certification could work with the Chapter to identify specific job tasks covered in their trainings.

12. Items Referred from Other Groups to PEC

None.

13. Old Business

None.

14. New Business

14.1 ASHRAE Transformation Ad Hoc Report Impacts

Mr. Dean advised the council that at the last BOD meeting Tim Wentz gave a report that may result in structural changes to the society.

15. Adjourn

Mr. Dean adjourned the meeting at 11:32 a.m.

PEC MBOs 2020-2021

					Committees		Subcommittees												
DESCRIPTION					Certification	Handbook	Historical	Train & Edu	Publications	Functional	Fiscal	Products	Prof Dev	Research Journal	PEC V Chair	PEC Chair	Staff	STATUS	COMMENTS
1	Create a Sales Business Plan for PEC by identifying 3 to 5 digital product strategies.					X			X	X	X	X			x	x	x		Due by June of 2021. PEC Ad Hoc AI#6
2	To develop a PEC Business Model that includes offering ASHRAE products and services to non-commercial entities.				X	X		X	X	X	X	X	X		x	x	x		PEC AdHoc AI#5
3	Analyze Certification Program and develop metrics for evaluating potential for new certifications aligned with Strategic Plan initiatives 1 & 2 after surveying members to establish interest and demand.				X					X			X		x	x	x		Oversight by Functional Planning Subcommittee of PEC. In-Progress.
4	Develop Career Plan path as requested by PEAC with Credential to be available in the 2021-2022 SY for President Elect Mick Schwedler				X			X		X			X		x	x	x		Needs to be ready to go by 7/1/2021

Attachment B

Global Training Center July – December 2020 Q1 & 2

Prepared by Ayah Said

Challenges

- Surge of unlimited, free online webinars offered by chapters.
 - Differentiating ASHRAE training
- Massive changes in spending power due to the pandemic.
- Price sensitive markets despite the reduced fees (Developing Econ.)
 - 22 out of 31 RAL chapters are developing economies
 - Payment challenges to due to substantial currency differences, lack of appropriate payment methods, and government restrictions on flow of dollars
- Economic/Political instability faced by some non-DE economies.
 - Payment challenges to due to substantial currency differences, lack of appropriate payment methods, and government restrictions on flow of dollars

Web-Training July-December 2020

- 12 GTC Courses offered between July – December 2020.
 - Combination of 6-, 3- and 2-hour courses
 - Courses fees were significantly reduced as part of a promotion period as a response to the pandemic.
 - Total of 424 registrants.
- 1 Free UNIDO/K-CEP webinar
 - 1064 registrants from 96 countries
- # of registrants per course is good compared to previous years **BUT** not enough to offset the substantial reduction in fees offered during promotion period.

Financial Performance

July – December 2020

Revenue	\$51,281.04
Direct Costs	\$11,725.00
Gross	\$39,556.04
Overheads	\$22,000.00
Net	\$17,556.04

- Revenue is lower than usual due to:
 - Reduced fees (over 50% discount)
 - Not enough registrants to offset the reduction in fees
- Direct costs (travel/lodging etc.) except for instructor honorariums have been eliminated.
- Forecast FY 2021 will be decreased from 150k to 100k.

Steps Moving Forward

- Additional focus on marketing
 - Social media targeted promotions are already being utilized. Showed an increase but not significant.
 - Therefore, increase involvement of RAL chapters by appointing chapter POC's
 - POC's to help spread GTC news/events at the local level
 - POC's to communicate feedback (challenges/needs) from local members/non-members
- GTC involvement in the following RAL Ad hoc committees to ensure GTC is considered as a resource for member/non-members and incorporated in current/future RAL plans
 - Strategic Planning Committee
 - Vision/Advisory Committee
 - Sustainable Operations Committee



Questions



**PEC - Fiscal Subcommittee Report
To Publishing & Education Council (PEC)
Meeting of Friday, January 22, 2021**

In Attendance

Members: Kelley Cramm-Chair, Ashley Weekly, Michael Patton, Dean Borges, Jeremy Smith, Hugh McMillan, Kurt Monteiro, Spencer Morasch, Keith Reihl, Jim Vallort, Bill Dean, Mark Fly, Ahmed Alaa Eldin Mohamed, Mark Owen

Guests: Greg Martin, Kimberly Gates, Sarah Foster, Heather Kennedy, Karen Murray, David Soltis, Eunice Njeru

Motions

None.

Information Items

Mr. Owen gave a financial overview for Publishing & Education Departments using the PEC Dashboard for December 2020. (*Attachment A of Fiscal Subcommittee Report to PEC*)

Overall PEC end Dec 2020			
Item	LYTD	YTD	Diff v LY
Brev	\$ 4,250.4	\$ 4,278.8	1%
Rev	\$ 4,124.8	\$ 3,532.5	-14%
BExp	\$ 4,240.1	\$ 4,044.2	-5%
Exp	\$ 3,597.0	\$ 3,024.3	-16%
BNet	\$ 10.3	\$ 234.6	\$ 224.3
Net	\$ 527.8	\$ 508.2	\$ (19.6)
Margin	12.8%	14.4%	1.6%

BRev = Budgeted revenue; **Rev** = Actual revenue; **BExp** = Budgeted expense before OH&BOD; **Exp** = Actual expense before OH&BOD; **BNet** = Budgeted net; **Net** = Actual net; **LYTD** = last fiscal year to date; **YTD** = current fiscal year to date; **Diff** = Difference between LYTD and YTD, either percentage or dollars. Data source = Financial statements (roll-ups for PEC, Certification, Handbook, Journal, Special Pubs, and Professional Development). Values = US\$ x1000.

1. Ms. Cramm asked subcommittee members if the PEC dashboard was helpful or if they could see ways to improve the Dashboard in presentation or content.

After some discussion and general agreement that it was helpful, the subcommittee members commented that specific information for each department would also be helpful to standing committees. Ms. Cramm suggested a separate dashboard for each committee and subcommittee members agreed. Ms. Cramm assigned an action item to all standing committees to send a list of data points they would like included on department specific dashboards to her, Mr. Owen and his assistant by March 5, 2021. (ACTION ITEM 1)

Mr. Martin gave an overview of the ASHRAE Journal Advertising.

(Attachment B of Fiscal Subcommittee Report to PEC)

2. Overall ASHRAE Media Advertising and Sponsorship Revenue. ASHRAE Media revenue for all print and nonprint offerings is approximately \$350,000 less than budget and \$200,000 less than FY2019-20 actual sales. These programs include advertising revenue from ASHRAE Journal print and digital editions, ASHRAE.org, supplier webinars, Handbook Online, AMCA inmotion, newsletters and sponsorships for the ASHRAE conferences.
3. Factors Impacting Advertising Sales. Advertising sales have been negatively impacted by the cancelation of AHR Expo 2021 and AHR-Mexico 2020, COVID-19 pandemic as well as attrition of magazine advertising in general. ASHRAE advertising revenue appeared to be trending upward prior to the global pandemic's arrival in the U.S. In February, Journal sales exceeded its FY20 goal and the prior year's revenue. However, advertising cancellations attributed to the pandemic to date totaled \$115,000 in FY20 and an additional \$400,000 in FY21 reductions and cancelations. Due to the Spring onset of the pandemic, existing advertising contracts continued toward fulfillment. However, new programs have been deferred or canceled due to uncertainty for HVACR engineering industry and the global economy. Some advertisers furloughed marketing staff during the crisis, and office closures created logistical problems in gathering information on advertising programs. ASHRAE Journal remains advertisers' No. 1 choice for the past ten years, shown in [*Attachment A of the ASHRAE Journal Advertising Report to Fiscal Subcommittee of PEC.*](#)
4. Strategic Responses. Staff initiated several new programs and expanded existing programs in response to the market conditions. New programs include expanding webinars due to increased demand, additional advertising in newsletters, sponsored product listings, sponsored email announcements, supplier video demonstrations and expanded product sections within ASHRAE Journal's January-March issues. For reduction of expenses, staff is eliminating controlled circulation of ASHRAE Journal to non-members and suspending the bonus program for its independent sales representatives for January sales associated with AHR Expo.

PEC - Products Subcommittee Report

(Attachment C of Fiscal Subcommittee Report to PEC)

Handbook Committee (HBC) Report was given by Mr. Patton.

[*\(Attachment A of Products Subcommittee Report\)*](#)

5. An Ad-hoc was appointed to investigate reorganizing the chapters in the volume to balance out the page counts.
6. Anthony Young gave a presentation from TC 9.8 on a new chapter proposal for Airport Terminals. The committee will review and reply within a month.

7. HBC discussed ideas to encourage HB Online updates including obtaining funds for gift cards to primary authors.

Historical Committee Report was given by Mr. Borges.
(Attachment B of Products Subcommittee Report)

8. Historical Committee heard an update on the progress of all projects for 125th anniversary. All projects have been completed with one cancelled due to the cancellation of the in-person conference.
9. Historical Committee has chosen Shelia Hayter and Barney Burroughs for the next two Leadership Voices interviews to be filmed at the next in-person meeting.
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13. Historical Committee suggested that Basecamp be investigated as a potential storage solution for electronic documents and files with the possibility of a template or structure being created for that specific use.
14. Historical Committee reviewed their MBOs for updates shown in *Attachment B of the Historical Committee Report*.

Publications Committee Report was given by Mr. McMillan.
(Attachment C of Products Subcommittee Report)

15. Publications Committee members voted to select the winner for the 2020 Journal Paper Award, the title and authors of which Sarah Foster has forwarded to the Honors and Awards Committee for award presentation at the 2021 ASHRAE Annual Conference.
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17. A Publications Committee subcommittee drafted survey questions regarding Presidential Member Tim Wentz's idea for a series of Application Guides, and a survey was sent to all ASHRAE members in December 2020. Results of the survey are detailed in *Attachment B of the Publications Communications Report* and the detailed results are located on Basecamp. Mr. McMillan encouraged everyone to review the survey questions and take the survey. Ms. Mehboob mentioned that some survey respondents suggested that Apps and videos be developed to work with the Application Guides.

Research Journal Subcommittee Report was given by Ms. Cramm.
(Attachment D of Products Subcommittee Report)

18. Ms. Cramm briefly explained the main difference between *STBE* and the ASHRAE Journal was that papers that were too long and or technical for the ASHRAE Journal or ASHRAE Transactions needed a publication home so *Science and Technology for the Built Environment (STBE)* was created. Mr. Owen has an action item to develop some additional promotion of *STBE* which could include a reminder that ASHRAE Members have free access to *STBE* papers through the ASHRAE website.
19. The Taylor & Francis Publisher's Report shown in *Attachment A of the Research Journal Subcommittee Report* included the following items:
 - STBE published 129 articles in 2019, 10 of which were Open Access.
 - There were 49,095 STBE article downloads in 2020 YTD; 65% higher than 2019 YTD.
 - The 2019 Impact Factor is 1.356, ranking 42/63 in the Construction & Building Technology JCR category.
 - The journal's 2019 CiteScore is 2.6, ranking 32/83 in the Fluid Flow and Transfer Processes Scopus category.
20. Mr. Owen points out that the improvement of the Impact Factor of STBE has been a long-term effort by the editor and the publisher and represents an accomplishment worth highlighting.
21. Dr. Spitler gave the Editor's Report shown in *Attachment B of the Research Journal Subcommittee Report* STBE received 330 submissions in the last year, publishing 105 papers and 8 editorials. Ms. Cramm also noted for the subcommittee that the most common reasons for rejection of a paper were that it was either out of scope or that it needed more case studies cited.

Other Issues Discussed with the Products Subcommittee

22. Mr. Dean asked the Products Subcommittee to consider helping Publishing and Education products get to market a priority by helping to remove any bottlenecks and by improving communications between ASHRAE groups. The subcommittee discussed a few examples of this issue.

Mr. Borges, Historical Committee Chair, mentioned that ASHRAE videographer on staff has left ASHRAE and there is no plan to replace her.

Mr. McMillan, Publications Committee Chair, discussed the need to update, the very popular HVAC Simplified, which is being used as a textbook but references out of date ASHRAE Standards. The cognizant Technical Committee was TC7.1 but has been moved to TC 9.1 which has not responded to the Publications Committee. Publications Committee has informed the TAC Chair. Ms. Cramm is a member of TC 9.1 and assured Mr. McMillan that HVAC Simplified is on their agenda but they need to discuss the possible need for an academic to participate in an update of a textbook.
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Mr. McMillan reported that Publications Committee usually communicates directly with TCs on any needs, issues or concerns.

Mr. Borges stated he would like a more formal process for Historical Committee to communicate with Regional and Chapter Historians involved in history at the Society level. Ms. Calloway suggested asking the staff liaison for the Communications Committee, Joslyn Radcliff, for assistance in setting up mail groups with ASHRAE email aliases and Basecamp as a straightforward and simplified way of communicating.

Mr. Morasch informed the subcommittee that he is a member of the Streamline Committee and they are tasked with assisting communication between ASHRAE groups. Anyone can email him directly with their issues or concerns and he will take them directly to that committee.

PEC – Professional Development Subcommittee Report

(Attachment D of Fiscal Subcommittee Report to PEC)

*Certification Committee Report was given by Ashley Weekly, Chair
(Attachment A of Products Subcommittee Report)*

24. Certification Committee completed its annual, ANSI required, Management System Review of the effectiveness needed improvements for certification services. All seven ASHRAE certifications are ANSI-accredited.
25. Remote online proctored certification examination launched fall 2020 for a safe, secure and convenient approach to testing. In December, over 80% of examinees took advantage of this new service.
26. The Certification Study Guide: Certified HVAC Designer (CHD) launched in October 2020 and has sold 113 copies. The guide features a 100-question CHD practice exam and links to other resources in ASHRAE publications and training for additional information.

Mr. Brandt asked if a study guide will be developed for all certification programs and Mr. Owen explained that this was the first and depending on interest and budget more will be developed. Ms. Weekly also stated that with limited funds it was important to evaluate the need for a guide for some certification programs that are not performing as well.

An Action Item was assigned to Mr. Kline to send a copy of the Certified HVAC Designer Study Guide to Mr. Brandt and Mr. Dean. (ACTION ITEM 2)

Mr. Sekhar suggested developing a list of TEC courses that relate to each certification. Mr. Kline informed the subcommittee that currently the certification page lists courses that relate to job task understanding for each certification. Ms. Weekly stated likewise a communication process should be developed to inform TEC participants of certifications that relate to a course they just completed.

Mr. Sekhar suggested developing a map for all ASHRAE products to include Certification, training and publications. Mr. Smith explained that this would be a very large project and suggested a key word list as an option. Mr. Kline will investigate if ASHRAE has a current key word list or the possibility of developing one. (ACTION ITEM 3)

Mr. Owen reported that a “Pathway Initiative” may be in the works for Mr. Schwedler’s presidential year.

27. Certification Digital Badging has been very successful with over 900 badges claimed, over 500 shares to LinkedIn and over 10,000 badge views in all media.
28. In December, the Certification Committee partnered with Region XII to deliver a Live Certification Tech Talk featuring need-to-know information for prospects and employers. Region XII Members will receive a 20% application discount through March 31. Regions interested in Co-Hosting a similar Certification Tech Talk should contact Tim Kline at tkline@ashrae.org for details.

Mr. Kline reported to the subcommittee that presentation was to promote the value of Certification and to explain the process of achieving a certification. Mr. Reihl suggested contacting ASHRAE DRCs as this type of presentation might be valuable at CRC meetings.

Mr. Kline also reported that no one has applied with the offered 20% discount to date.

29. Through December 31, 2020, there were 330 recertification applications received, versus 279 in 2019.

*Training & Education Committee (TEC) Report was given by Jeremy Smith
(Attachment B PEC - Professional Development SC Report to PEC – Fiscal)*

30. The committee approved a motion from Members Council “That Society expand the eLearning Corporate training program to be used by ASHRAE chapters beginning January 2021.” A program already exists for chapters to purchase eLearning courses at a discounted rate.
31. Comparison of 2020-21 to 2019-20 ALI course registrations is listed on the TEC report.
32. Online ALI HVAC Design training began in December 2020, and Online HVAC Design training presented through the Global Training Center begins in late January 2021. The GTC training is tailored to the Middle East, Northern Africa and parts of Asia. The training costs are lower, and prices are available for developing economies. Procedures are in place to guide registrants to the appropriate training based on their general location.
33. Work to review and revise select Self Directed Learning (SDL) courses continues including the development of slides to accompany courses.

Mr. Owen reported that funding availability is a constraint due, in part, to the loss of income from cancellation of the Winter Conference resulting in the freezing of some programs and projects.

Mr. Vallort commented that the process should be standardized like the Standards updating schedule. At the request of Mr. Fisher, the course updating schedule will be included with the subcommittees report to PEC. (ACTION ITEM 4)

34. ASHRAE Learning Institute is working with the Epidemic Task Force to develop and deliver courses focused on the most up-to-date SARS CoV-2 findings. Ms. Murray explained to the subcommittee that new course development has been brisk with interest from NYSEDA and other outside groups.

The following SARS Cov-2 related courses are offered early in the 2021 Online Course Series beginning in late January:

- **NEW!** COVID-19 and Buildings: Re-Occupation After Lockdown
- **NEW!** Reopening Commercial Buildings: Evaluating Your HVAC Systems' Readiness to Mitigate the Spread of SARS-CoV-2
- **NEW!** Health Impacts of Indoor Air Extraction, Ventilation and Filtration - Same or Different?
- **Updated!** Hospital HVAC: Infection Mitigation, Comfort, Performance
- **NEW!** Evaluating Your HVAC System's Readiness to Mitigate the Spread of SARS-CoV-2
- **NEW!** Fundamentals of Ultraviolet Germicidal Irradiation (UVGI) for Air and Surface Disinfection
- **NEW!** Reopening Universities: Managing HVAC Systems to Mitigate the Spread of SARS-CoV-2 (in the scheduling process)

35. eLearning has seen a substantial increase in subscription revenue and is on track to make the forecast for the 2020-2021 fiscal year. The cumulative subscription revenue for the fiscal year to date is 153.6K on a forecast of 315K (December Financials). Most of this revenue is from individual member and non-member subscriptions, with a few corporate subscriptions.
36. eLearning is continuing its course updates to meet the demand. Seven courses have been updated with a goal of ten for the 2020-2021 Society Year. The priority is Fundamental Courses, which have proven to be the most popular with corporate customers.

Other Issues Discussed with the Fiscal Subcommittee

37. Mr. Dean discussed with the subcommittee that they prioritize cross committee communication to coordinate product development and efficiency. Additionally, Mr. Dean asked if Certification Committee or TEC had experienced any bottlenecks with other councils or committees they would like to discuss.
38. Mr. Sekhar asked how TEC courses are chosen for development and Mr. Smith explained that after some interest has been shown then TCs or SSPCs are approached for proposals to develop a course. Mr. Sekhar also suggested more courses be developed for hands-on subjects, such as, equipment or instrument use or data collection, interpretation and analysis for IAQ.
39. Mr. Stuart suggested a need for better communication and coordination between TEC courses, ASHRAE Conference programs and TCs on subject matter related to each TC.

Respectfully submitted,

Kelley Cramm, PEC Fiscal Subcommittee Chair
January 22, 2021

Action Items List
PEC – Fiscal Subcommittee
Meeting of January 22, 2021

#	Responsibility	Action Item
1	Handbook Committee, Historical Committee, Publications Committee, Certification Committee, TEC	Send a list of data points they would like included on department specific dashboards to Ms. Cramm, Mr. Owen and his assistant by March 5, 2021.
2	Tim Kline	Send a copy of the Certified HVAC Designer Study Guide to Mr. Brandt and Mr. Dean.
3	Tim Kline	Investigate if ASHRAE has a current key word list or the possibility of developing one and report back to TEC Chair.
4	TEC Staff	Include course updating schedule in future TEC reports to Professional Development Subcommittee.

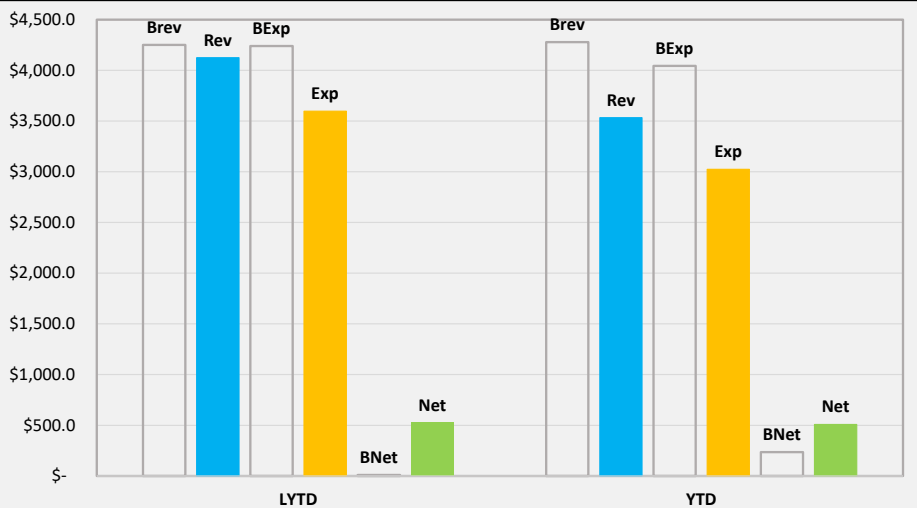


Pub/Ed DASHBOARD

end Dec 2020

Item	LYTD	YTD	Diff v LY
Brev	\$ 4,250.4	\$ 4,278.8	1%
Rev	\$ 4,124.8	\$ 3,532.5	-14%
BExp	\$ 4,240.1	\$ 4,044.2	-5%
Exp	\$ 3,597.0	\$ 3,024.3	-16%
BNet	\$ 10.3	\$ 234.6	\$ 224.3
Net	\$ 527.8	\$ 508.2	\$ (19.6)
Margin	12.8%	14.4%	1.6%

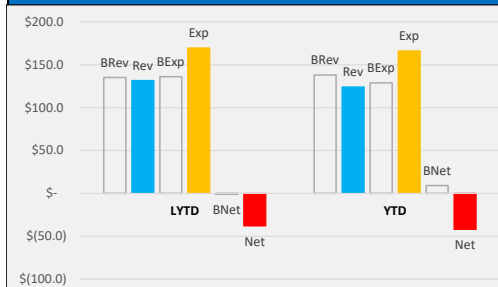
PubEd Council TOTAL



NOTES:

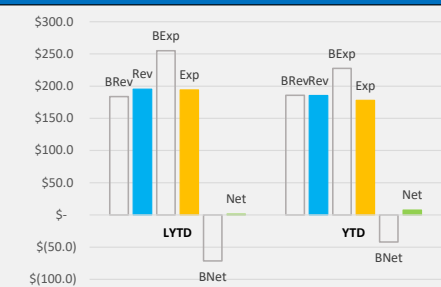
BRev = Budgeted revenue; **Rev** = Actual revenue; **BExp** = Budgeted expense before OH&BOD; **Exp** = Actual expense before OH&BOD; **BNet** = Budgeted net; **Net** = Actual net; **LYTD** = last fiscal year to date; **YTD** = current fiscal year to date; **Diff** = Difference between LYTD and YTD, either percentage or dollars. Data source = Financial statements (roll-ups for PEC, Certification, Handbook, Journal, Special Pubs, and Professional Development). Values = US\$ x1000.

Certification



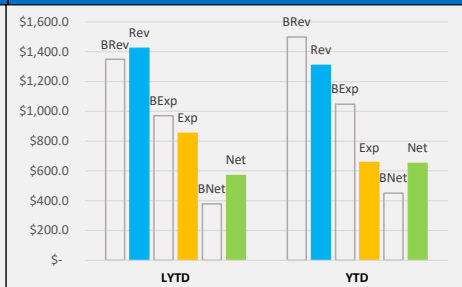
Item	LYTD	YTD	Diff v LY
BRev	\$ 135.2	\$ 138.1	2%
Rev	\$ 131.7	\$ 124.2	-6%
BExp	\$ 136.1	\$ 128.9	-5%
Exp	\$ 169.6	\$ 166.1	-2%
BNet	\$ (0.90)	\$ 9.2	\$ 10.1
Net	\$ (37.9)	\$ (41.9)	\$ (4.0)
Margin	-28.8%	-33.7%	-5.0%

Handbook



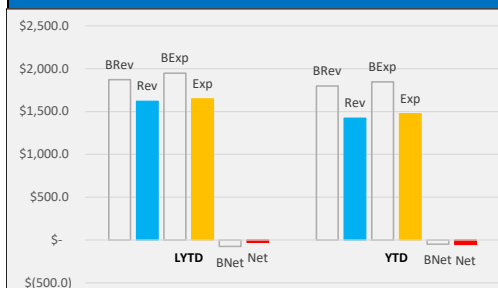
Item	LYTD	YTD	Diff v LY
BRev	\$ 183.8	\$ 185.8	1%
Rev	\$ 195.4	\$ 185.6	-5%
BExp	\$ 255.1	\$ 227.7	-11%
Exp	\$ 194.1	\$ 178.0	-8%
BNet	\$ (71.3)	\$ (41.9)	\$ 29.4
Net	\$ 1.3	\$ 7.6	\$ 6.3
Margin	0.7%	4.1%	3.4%

Special Pubs



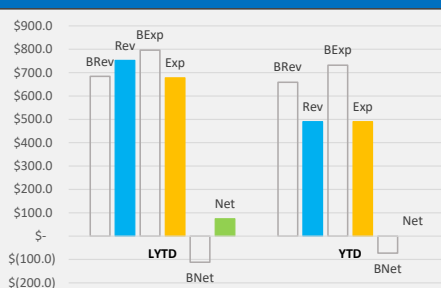
Item	LYTD	YTD	Diff v LY
BRev	\$ 1,348.7	\$ 1,498.1	11%
Rev	\$ 1,423.8	\$ 1,308.9	-8%
BExp	\$ 970.4	\$ 1,047.8	8%
Exp	\$ 853.1	\$ 657.5	-23%
BNet	\$ 378.3	\$ 450.3	\$ 72.0
Net	\$ 570.7	\$ 651.4	\$ 80.7
Margin	40.1%	49.8%	9.7%

AJ-HPB/Advertising



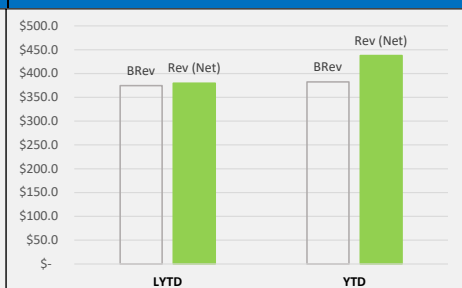
Item	LYTD	YTD	Diff v LY
BRev	\$ 1,872.7	\$ 1,798.2	-4%
Rev	\$ 1,621.5	\$ 1,423.6	-12%
BExp	\$ 1,947.1	\$ 1,846.1	-5%
Exp	\$ 1,647.9	\$ 1,475.7	-10%
BNet	\$ (74.4)	\$ (47.9)	\$ 26.5
Net	\$ (26.4)	\$ (52.1)	\$ (25.7)
Margin	-1.6%	-3.7%	-2.0%

ALI/eLearning



Item	LYTD	YTD	Diff v LY
BRev	\$ 684.2	\$ 658.9	-4%
Rev	\$ 752.3	\$ 490.2	-35%
BExp	\$ 796.2	\$ 731.4	-8%
Exp	\$ 677.9	\$ 490.2	-28%
BNet	\$ (112.0)	\$ (72.5)	\$ 39.5
Net	\$ 74.4	\$ -	\$ (74.4)
Margin	9.9%	0.0%	-9.9%

Royalties



Item	LYTD	YTD	Diff v LY
BRev	\$ 374.7	\$ 382.4	2%
Rev (Net)	\$ 379.5	\$ 437.9	15%

(No direct expenses; Rev = Net.)



Advertising Sales Report to Fiscal Subcommittee of PEC

****CONFIDENTIAL DUE TO COMPETITIVE ADVERTISING ENVIRONMENT****

Action Items for PEC

None.

Information Items

1. **Overall ASHRAE Media Advertising and Sponsorship Revenue.** ASHRAE Media revenue for all print and nonprint offerings is approximately \$350,000 less than budget and \$200,000 less than FY2019-20 actual sales. These programs include advertising revenue from ASHRAE Journal print and digital editions, ASHRAE.org, supplier webinars, Handbook Online, AMCA inmotion, newsletters and sponsorships for the ASHRAE conferences.
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Respectfully Submitted,

A handwritten signature in blue ink, appearing to read "Greg Martin", is written over a light blue horizontal line.

Greg Martin
Manager of Advertising Sales

Attachment A
Advertising Sales Report to Fiscal Subcommittee of PEC

5000: Snapshot Summary ⓘ

Here is a quick look at performance data for the most current month. This report provides a comparison for the same month last year and also provides the performance statistics year-to-date. Market share is included in this report as is a variance table showing you growth or decline trends by magazine and by market.

SELECTED PERIOD(S) ⓘ
Jul 2020 - Dec 2020 ⓘ
(6 months)

REPORTED ⓘ
By Net Advertiser ⓘ

SALES TERRITORY ⓘ
All Territories ⓘ

Choose & Display Publication/Event (3/3) ⓘ

Group All

Export to Excel

Publication	December						Selected Period						Variance					
	Pages		SOM		# of Advertisers		Pages		SOM		# of Advertisers		December			Selected Period		
	2020	2019	2020	2019	2020	2019	Jul 20 Dec 20	Jul 19 Dec 19	Jul 20 Dec 20	Jul 19 Dec 19	Jul 20 Dec 20	Jul 19 Dec 19	Pages	Share	Advertiser	Pages	Share	Advertiser
ASHRAE JOURNAL	58.75	70.00	70.29%	77.56%	35	47	229.63	271.84	72.68%	66.15%	71	103	-11.25	-7.27%	-12	-42.21	+6.52%	-32
ENGINEERED SYS	17.08	11.25	20.44%	12.47%	17	13	53.08	77.75	16.80%	18.92%	31	51	+5.83	+7.97%	+4	-24.67	-2.12%	-20
HPAC ENGINEERING	7.75	9.00	9.27%	9.97%	7	9	33.25	61.33	10.52%	14.93%	14	27	-1.25	-0.70%	-2	-28.08	-4.40%	-13
Totals: 3	84	90					316	411					-7	-7.39%		-95	-23.11%	

Legend: Not published / Ceased book



**PEC - Products Subcommittee Report
to PEC - Fiscal Subcommittee
Meeting of Thursday, January 21, 2021**

In Attendance

Members: Randy Schrecengost; Products Subcommittee Chair, Cynthia Callaway, Mark Fly, Michael Patton, Hugh McMillan, Adeeba Mehboob, Dean Borges, Spencer Morasch, Ahmed Alaa Eldin Mohamed Kelley Cramm, Mark Owen

Guests: Bill Dean; PEC Chair, Cindy Michaels, Kimberly Gates, David Soltis, Heather Kennedy

Motions

None.

Information Items

Handbook Committee (HBC) Report was given by Mr. Patton. *(Attachment A)*

1. An Ad-hoc was appointed to investigate reorganizing the chapters in the volume to balance out the page counts.
2. Anthony Young gave a presentation from TC 9.8 on a new chapter proposal for Airport Terminals. The committee will review and reply within a month.
3. HBC discussed ideas to encourage HB Online updates included obtaining funds for gift cards to primary authors.

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5. Historical Committee have chosen Shelia Hayter and Barney Burroughs for the next two Leadership Voices interviews to be filmed at the next in-person meeting.
6. Historical Committee reviewed a report on the status of PAOE points. *(Attachment A of the Historical Committee Report)*
7. Historical Committee members Glenn Remington and Bern Nagengast were assigned to work reinstituting the Historians Newsletter.

8. Historical Committee discussed communicating with a professional archivist to help organize what ASHRAE material should be archived and the idea of a “Finding Aid System” to assist user of an ASHRAE Archive.
9. Historical Committee suggested that Basecamp be investigated as a potential storage solution for electronic documents and files with the possibility of a template or structure being created for that specific use.
10. Historical Committee reviewed their MBOs for updates shown in *Attachment B of the Historical Committee Report*.

Publications Committee Report was given by Mr. McMillan. (*Attachment C*)

11. Publications Committee members voted to select the winner for the 2020 Journal Paper Award, the title and authors of which Sarah Foster has forwarded to the Honors and Awards Committee for award presentation at the 2021 ASHRAE Annual Conference.
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Respectfully submitted,

Randy Schrecengost, PEC – Products Subcommittee Chair
January 21, 2021



Handbook Committee Report To PEC - Products Subcommittee

Motions

None.

Information Items

1. Subcommittees
 - a. Review/Training (Furman) reported about the online TC training which was well attended
 - b. Electronic (Fisher) report highlighted the Basecamp opportunity and demonstrated and reviewed the file structure to date
 - c. Functional (Sheinman) reported that the ARG, ROB and MOP are up to date and have received all approvals.
 - d. The absence of Abushakra prevented a Strategic Planning report
2. Volume reports
 - a. No issues were highlighted in any of the volume reports.
 - b. Fisher (2022 Refrigeration) indicated that progress on the volume has not been impacted by Covid-19 due to the stability of the content
 - c. Heather indicated that 2021 (Fundamentals) galley's are in progress but some are delayed due to late submissions and Staff reductions.
3. General
 - a. Discussion was held about reorganizing the chapters in the volume to balance out the page counts. (Action Item 1) **Patton to appoint an Ad-hoc to solidify ideas.**
 - b. Presentation by Anthony Young from TC 9.8 on a new chapter proposal for Airport Terminals. The committee will review and reply within a month. (Action Item 2) **Patton/Kennedy to set full committee meeting to discuss and vote.**
 - c. Ideas for encouraging HB Online updates included obtaining funds for gift cards to primary authors. (Action Item 3) **Kennedy to investigate obtaining funds or budget.**
 - d. Patton suggested adding a 2 times per year virtual meeting spaced before and after the Winter Meeting to coordinate volume activities. The MOP will be updated as required to add this additional meeting requirement. (Action Item 4) **Patton/Sheinman to review MOP for new 2.4.3.(d) adding this to Volume Chairs responsibilities.**
4. MBOs were reviewed and updated and shown in *Attachment A*.

Respectfully submitted,
Michael P. Patton, Handbook Committee Chair
January 21, 2021

Attachment A
Handbook Committee Report to PEC - Products Subcommittee

MBO Submission to Planning

Council:

PEC
 Handbook Submitted by

Committee:

M Patton HBC Chair

MBO # Description		Metric (how do we determine success?)	Initiative # (can be more than 1)	Goal # (can be more than 1)	Completion Date	Financial Assist Req'd?
1	Solicit ideas for PEC MBO 1&2	Included in HBC Report to PEC	1&2	1	Jan 1 2021	PEC to Evaluate
2	Address Volume imbalances, Fundamentals and Applications getting large and shipping costs increasing			2	June 30 2021	No
3	Develop a TC reward recognition system for HB Online content	Increase interim cycle revisions		3	June 30 2021	Yes
4	Solve Author Portal browser problem as this is hampering adoption of the tool	COMPLETE		1a	Sep-20	Complete
5	Work with TAC to promote HB activities at the TC Chairs general meeting Either Virtual or when Conferences resume	Getting on the TAC agenda		1b	Jan 1 2021	No
6	Require Vol Chairs to hold virtual Liason meetings to discuss volume progress at least 2x per yr. outside conference meetings.	Vol Chair Reports		1b	Jan 1 2021	Assistance from staff may be required
7	Work with TAC to monitor TC restructuring (if any) as it occurs. Any TC reorg greatly impacts HBC and Liaison assignments	Ongoing		3a	June 30 2021	No
8 (NEW)	Review ARG for clarity on material to be included in the HB volumes vs that set for other publications (deign Guides, Users manuals)	Revisions to ARG		2	June 30 2021	No



Historical Committee
Report to PEC - Products Subcommittee
Meeting of January 15, 2021

Action Items

1. None.

Information Items

1. Historical Committee heard an update on the progress of all projects for 125th anniversary. All projects have been completed with one cancelled due to the cancellation of the in-person conference.
2. Historical Committee discussed the pilot plaque project which will be installed in Orange, Texas.
3. Historical Committee have chosen Shelia Hayter and Barney Buroughs for the next two Leadership Voices interviews to be filmed at the next in-person meeting.
4. Historical Committee discussed the necessity of continuity of communication, to keep Regional and Chapter Historians involved in history at the Society level.
5. Historical Committee reviewed a report on the status of PAOE points. (*Attachment A*)
6. Historical Committee discussed reinstituting the Historians Newsletter. Glenn Remington and Bern Nagengast were assigned to work on this and report to the committee at their next meeting.
7. Historical Committee discussed communicating with a professional archivist to help organize what ASHRAE material should be archived and the idea of a "Finding Aid System" to assist user of an ASHRAE Archive.
8. Historical Committee suggested that Basecamp be investigated as a potential storage solution for electronic documents and files with the possibility of a template or structure being created for that specific use.
9. Historical Committee reviewed their MBOs for updates shown in *Attachment B*

Respectfully submitted,
Dean Borges, Historical Committee Chair

HISTORY CHAIR PAOE SUMMARY REPORT

Winter VIRTUAL MEETING 2020-2021

Regions	Total History PAOE	Chapters @ "0" PAOE	Chapters @ MIN	Chapters @ PAR
I	2795	2	13	0
II	2025	2	7	5
III	250	9	2	0
IV	200	6	1	0
V	300	11	1	1
VI	50	9	0	0
VII	3250	5	8	4
VIII	2850	4	10	5
IX	1525	7	6	1
X	3100	0	14	0
XI	300	10	1	1
XII	1075	11	4	2
XIII	1750	0	10	1
XIV	0	9	0	0
Region- At-Large	12725	1	30	18

Grand Total 32195

Top 10 in PAOE for History	Region	PAOE Pts
1	RAL	12725
2	7	3250
3	10	3100
4	8	2850
5	1	2795
6	2	2025
7	13	1750
8	9	1525
9	12	1075
10	5	300

Top 10 CHAPTERS	Top 10 History PAOE
LOUISVILLE	1400
TURKISH	1375
BAHRAIN	1250
ASHRAE BANGALORE	1200
NORTHERN NEVADA	950
QATAR ORYX	850
ASHRAE MUMBAI	650
AUSTIN	625
ASHRAE DECCAN	550
INDIA	550

1. Each Regional Historian to reach out to Chapter Historians/Presidents with ZERO PAOE History points and help them get to Minimum PAOE of 100.
2. Each Regional Historian to reach out to Chapter Historians/Presidents with less than 300 PAR PAOE points and encourage them to get PAR.

REGION I

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

[illegible]

REGION II

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE pointTotals
13	QUEBEC	163	0	500	400	0	0	700	0	100	850	2550
14	MONTREAL	534	300	700	1350	0	100	650	650	450	975	5175
15	OTTAWA VALLEY	411	250	395	800	0	100	60	1100	0	950	3655
16	TORONTO	1079	275	835	1250	0	550	70	0	300	1625	4905
37	HAMILTON	281	300	825	450	0	830	1440	2300	0	1225	7370
100	HALIFAX	193	0	435	150	0	250	10	0	0	850	1695
116	LONDON (CANADA)	127	300	250	300	0	645	0	0	0	850	2345
117	NB/PEI	150	300	300	200	0	540	0	0	0	500	1840
141	WINDSOR	63	300	600	200	0	430	1275	300	750	850	4705

Total PAOE 2025

Avg PAOE 225

2020-2021 Presidential Award of Excellence

[illegible]

REGION IV

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE pointTotals
29	NORTH PIEDMONT	189	0	25	400	0	200	170	300	0	825	1920
30	SOUTHERN PIEDMONT	371	0	275	50	0	0	80	0	0	1075	1480
31	SOUTH CAROLINA	141	0	150	50	0	0	0	200	0	675	1075
32	ATLANTA	988	200	450	350	0	710	635	400	350	1225	4320
97	GREENVILLE	187	0	125	100	0	0	20	0	0	300	545
106	TRIANGLE	472	0	690	2295	0	130	60	400	0	1425	5000
113	CHARLESTON	144	0	175	0	0	0	130	0	0	900	1205

Total PAOE 200

Avg PAOE 29

REGION V

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

[illegible]

2020-2021 Presidential Award of Excellence

Total PAOE	50
Avg. PAOE	5

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE pointTotals
48	WISCONSIN	337	50	125	25	0	150	1095	100	650	875	3070
49	ILLINOIS	1198	0	485	700	0	410	885	400	0	1175	4055
50	CENTRAL ILLINOIS	132	0	0	150	0	150	455	0	0	300	1055
51	IOWA	312	0	125	250	0	0	520	0	0	850	1745
52	MINNESOTA	846	50	160	525	0	460	1180	0	0	1250	3625
54	ST LOUIS	652	0	175	450	0	0	630	100	0	675	2030
95	MADISON	255	0	125	250	0	0	100	0	0	550	1025
107	NORTHEAST WISCONSIN	152	0	150	50	0	0	20	0	0	650	870
115	LA CROSSE AREA	127	0	175	100	0	0	65	950	0	1250	2540
123	MISSISSIPPI VALLEY	100	0	125	100	0	0	0	0	0	650	875
159	CEDAR VALLEY	81	0	125	0	0	0	20	0	0	550	695

REGION VII

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communication s: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
55	LOUISVILLE	191	1400	225	50	0	100	675	2650	50	725	5875
56	MEMPHIS	169	200	125	70	0	0	170	200	0	850	1615
57	BIRMINGHAM	249	0	375	225	0	630	1515	1400	0	950	5095
58	MOBILE	47	0	0	0	0	0	160	0	0	750	910
59	NEW ORLEANS	121	350	125	0	0	640	620	550	50	700	3035
60	BATON ROUGE	91	100	25	0	0	0	200	300	0	550	1175
61	MISSISSIPPI	89	250	10	0	0	0	100	400	0	575	1335
88	NASHVILLE	317	300	350	0	0	810	560	200	0	675	2895
99	EAST TENNESSEE	219	0	100	200	0	100	310	100	0	700	1510
114	TENNESSEE VALLEY	86	0	25	50	0	250	160	700	0	450	1635
128	BLUEGRASS	111	250	25	50	0	400	300	200	0	750	1975
130	NORTHWEST FLORIDA	58	0	25	0	0	0	150	0	0	100	275
133	NORTH ALABAMA	60	100	100	0	0	250	100	0	0	100	650
192	WEST VIRGINIA	79	300	650	725	0	590	850	400	800	1000	5315

Total PAOE 3250
Avg. PAOE 232

REGION VIII

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
62	ARKANSAS	234	300	230	600	0	945	2720	3039	50	975	8859
64	HOUSTON	729	350	310	1516	0	400	1265	400	500	825	5566
65	ALAMO	231	100	25	300	0	0	10	400	0	775	1610
66	AUSTIN	367	625	210	525	0	0	315	0	0	1100	2775
67	DALLAS	724	100	500	519	0	406	980	650	0	1000	4155
68	CENTRAL OKLAHOMA	279	475	405	845	0	200	1840	700	300	950	5715
69	NORTHEASTERN OKLAHOMA	188	100	185	200	0	620	70	1200	0	600	2975
70	FORT WORTH	296	375	175	450	0	0	80	820	100	900	2900
71	WEST TEXAS	80	0	100	100	0	0	0	0	0	450	650
91	EAST TEXAS	115	100	300	100	0	0	85	0	0	750	1335
154	SOUTH TEXAS	60	0	0	325	0	0	60	0	0	275	660
165	MEXICO CITY	102	0	250	395	0	160	310	200	700	475	2490
166	MONTERREY	130	225	455	325	0	0	0	400	0	825	2230
173	GUADALAJARA	26	0	0	0	0	0	50	0	0	0	50
208	NORTHWEST ARKANSAS	129	100	125	420	0	100	250	200	50	800	2045

PAOE Total 2850
Avg. PAOE 190

2020-2021 Presidential Award of Excellence

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
53	KANSAS CITY	628	250	310	600	0	0	685	1000	600	925	4370
72	EL PASO	51	0	150	0	0	0	10	0	0	50	210
73	ROCKY MOUNTAIN	942	0	585	450	0	0	360	0	350	1025	2770
74	UTAH	318	200	200	50	0	0	2240	300	350	1275	4615
75	NEBRASKA	376	225	250	525	0	710	2765	1600	400	1250	7725
76	WICHITA	134	0	50	100	0	150	0	0	0	600	900
77	NEW MEXICO	156	200	175	0	0	0	30	0	350	500	1255
93	SOUTH DAKOTA	126	450	350	100	0	0	520	0	350	400	2170
127	BLACK HILLS	48	0	50	50	0	0	0	0	0	100	200
131	BIG SKY	121	200	75	150	0	250	160	450	0	650	1935
135	IDAHO	166	0	110	50	0	0	10	0	350	550	1070
148	PIKES PEAK	117	0	185	0	0	0	435	0	350	800	1770
150	OZARKS	75	0	80	0	0	0	0	0	250	350	680

Total PAOE	1525
Avg. PAOE	117

REGION X

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
81	SACRAMENTO VALLEY	282	150	75	200	0	50	40	500	0	1025	2040
82	GOLDEN GATE	866	150	310	350	0	200	560	450	600	1025	3645
83	SAN JOAQUIN	115	150	25	150	0	0	70	0	100	550	1045
84	SOUTHERN CALIFORNIA	664	150	385	450	0	0	160	500	100	1025	2770
85	SAN DIEGO	356	150	260	250	0	150	160	1200	200	925	3295
86	CENTRAL ARIZONA	439	150	310	480	0	0	50	200	100	1625	2915
87	TUCSON	94	250	25	300	0	0	150	500	100	700	2025
92	SOUTHERN NEVADA	144	150	225	772	0	600	720	0	300	725	3492
101	SAN JOSE	322	250	345	550	0	100	425	950	100	1375	4095
105	ORANGE EMPIRE	392	150	300	300	0	0	50	200	0	1175	2175
108	HAWAII	251	150	510	150	0	70	870	1550	100	900	4300
126	NORTHERN NEVADA	101	950	0	200	0	0	20	0	0	550	1720
144	SIERRA DELTA	46	150	320	100	0	0	400	200	150	250	1570
155	TRI COUNTY	76	150	125	150	0	0	10	0	0	100	535

Total PAOE 3100
Avg. PAOE 221

REGION XI

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications : Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEointTotals
17	MANITOBA	177	0	125	150	0	150	260	0	0	700	1385
18	SOUTHERN ALBERTA	378	0	225	150	0	0	60	0	0	550	985
19	NORTHERN ALBERTA	273	0	150	300	0	0	60	0	0	550	1060
20	BRITISH COLUMBIA	542	300	375	500	0	400	1330	950	250	775	4880
78	INLAND EMPIRE	149	0	75	0	0	0	30	0	0	700	805
79	PUGET SOUND	788	0	500	200	0	0	160	0	0	950	1810
80	OREGON	608	0	620	1400	0	1450	690	1000	850	1650	7660
96	REGINA	98	0	0	400	0	0	20	0	50	550	1020
102	SASKATOON	108	0	85	250	0	0	10	0	0	100	445
122	ALASKA	195	0	225	200	0	0	70	0	0	650	1145
145	VANCOUVER ISLAND	101	0	100	285	0	0	20	0	0	450	855

Total PAOE 300
Avg. PAOE 27

REGION XII

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE pointTotals
34	JACKSONVILLE	244	0	515	150	0	0	60	0	0	675	1400
35	FLORIDA WEST COAST	412	0	370	250	0	275	630	750	100	1025	3400
36	MIAMI	213	0	160	150	0	0	0	200	0	500	1010
94	CENTRAL FLORIDA	340	150	380	300	0	1020	545	1670	350	800	5215
104	GOLD COAST	197	0	200	100	0	0	50	100	0	500	950
110	PUERTO RICO	86	0	100	100	0	0	0	200	0	100	500
139	SOUTHWEST FLORIDA	127	0	75	250	0	0	270	1150	400	200	2345
172	BRASIL	182	150	160	1302	0	520	1560	600	650	1375	6317
178	ARGENTINA	132	0	75	745	0	1170	1425	400	500	1625	5940
190	COLOMBIA	66	300	0	500	0	0	1065	150	150	550	2715
196	CHILE	60	50	25	300	0	250	300	1000	0	450	2375
199	ECUADOR	41	0	45	275	0	0	0	100	0	600	1020
202	PARAGUAY	46	425	5	200	0	150	630	650	350	450	2860
209	ASHRAE CARICOM	75	0	200	650	0	0	20	600	300	1600	3370
213	SOUTH BRAZIL	65	0	485	1325	0	410	525	1750	100	1975	6570
220	Peru	106	0	115	50	0	0	200	100	0	775	1240

Total PAOE 1075
Avg. PAOE 67

2020-2021 Presidential Award of Excellence

[illegible]

REGION XIV

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
168	HELLENIC	129	0	100	450	0	0	0	0	0	650	1200
176	DANUBE	110	0	200	100	0	0	0	0	0	650	950
177	PORTUGAL	75	0	110	150	0	0	0	0	0	400	660
182	SPAIN	166	0	1110	100	0	0	30	0	0	300	1540
203	CYPRUS	39	0	60	0	0	0	10	0	0	0	70
204	IRELAND	105	0	185	100	0	0	20	0	0	850	1155
205	UK MIDLANDS	116	0	150	300	0	0	10	100	0	975	1535
206	UK LONDON and SOUTH-EAST	275	0	130	50	0	0	30	0	0	350	560
214	ISRAELI	74	0	425	0	0	0	20	0	0	300	745

Total PAOE 0
Avg. PAOE 0

REGION-AT-LARGE

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE ointTotals
158	INDIA	217	550	125	1475	0	200	110	750	150	925	4285
160	SAUDI ARABIA	181	100	135	50	0	0	210	300	0	1025	1820
161	CAIRO	103	200	280	300	0	0	0	0	0	1550	2330
162	LEBANESE	106	200	0	0	0	0	20	0	0	250	470
163	WESTERN INDIA	91	350	0	580	0	430	755	200	0	650	2965
164	KUWAIT	51	100	75	200	0	0	10	0	0	775	1160
169	ASHRAE BANGALORE	88	1200	100	355	0	0	0	400	150	1075	3280
171	SRI LANKAN	91	350	75	200	0	0	0	0	0	550	1175
174	PAKISTAN	89	350	10	50	0	0	10	0	0	575	995
175	ASHRAE FALCON	460	300	135	300	0	0	50	0	0	675	1460
179	NORTHERN PAKISTAN	55	200	125	400	0	0	0	400	0	500	1625
181	BAHRAIN	49	1250	505	320	0	500	395	700	0	1725	5395
184	QATAR ORYX	157	850	135	0	0	0	10	0	0	475	1470
185	CHENNAI	82	100	150	0	0	0	0	0	0	575	825
186	PUNE	101	300	580	0	0	0	10	900	0	1300	3090
187	ASHRAE NIGERIA	135	150	595	200	0	0	1200	850	0	1175	4170
188	ASHRAE MUMBAI	125	650	365	150	0	400	1945	200	200	550	4460
189	CENTRAL PAKISTAN	62	200	50	50	0	100	325	400	50	600	1775
191	ASHRAE DECCAN	61	550	25	875	0	380	1075	800	0	350	4055
193	TURKISH	100	1375	325	1350	0	700	1060	950	50	775	6585
197	BANGLADESH	45	400	50	0	0	0	0	0	0	600	1050
207	SOUTH AFRICA	156	350	615	0	0	490	1050	0	1150	500	4155
210	FAISALABAD	32	100	0	0	0	0	0	0	0	550	650
211	PYRAMIDS	75	750	225	0	0	0	10	0	600	975	2560
212	JORDAN	49	100	50	0	0	0	0	0	0	150	300
215	EAST INDIA	52	300	50	0	0	0	0	0	0	775	1125
216	RAJASTHAN	54	900	180	250	0	1250	2550	2310	300	350	8090
217	CHANDIGARH	73	300	60	800	0	0	0	0	0	900	2060
218	OMAN	43	100	50	0	0	0	10	150	0	400	710
219	LIBYA	40	100	0	0	0	0	0	0	0	100	200
221	Sudan	50	0	10	0	0	0	0	0	0	300	310

Total PAOE 12725

1/11/2021

PAOE for History	Region	PAOE Pts
1	RAL	12725
2	7	3250
3	10	3100
4	8	2850
5	1	2795
6	2	2025
7	13	1750
8	9	250
9	12	1075
10	5	300

Highest Chapters	PAOE History	Members	POINTS PER MEMBER
LOUISVILLE	1400	191	7.33
TURKISH	1375	100	13.75
BAHRAIN	1250	49	25.51
ASHRAE BANGALORE	1200	88	13.64
NORTHERN NEVADA	950	101	9.41
QATAR ORYX	850	157	5.41
ASHRAE MUMBAI	650	125	5.20
AUSTIN	625	367	1.70
ASHRAE DECCAN	550	61	9.02
INDIA	550	217	2.53
MALAYSIA	450	218	2.06
SOUTH DAKOTA	450	126	3.57

Historical Committee 2020-2021 MBOs –Dean Borges Chair						
Objective	PR	Comp. Date	Fiscal Impact	Respon.	Status	Comment
1. Develop proposals to improve the opportunities for Regional Historians to participate in Historical Committee activities.	1	Winter 2021 Chicago	None	RVC Guideline subcom	Ongoing	Continue on-line participation of (RVCs) at Committee meetings.
2. Develop PAOE Recommended Changes to 2021- 2022 PAOE	1	2021 Chicago	None		Complete	To get ahead of the PAOE Committee Cycle with proposal for the following year's PAOE Letter in Summer 2021
3. History VC PAOE Update Summary Report at Annual & Winter Meetings to include copy to 2019-2020 Annual meeting	1	Winter & Annual	None	VC Report	Complete	To encourage RVCs to target the below PAR performing Chapters in their Region based on the previous year's History PAOE Summary.
4. Encourage Chapter Historians who don't attend their Regional CRC to complete the Chapter Historians Training Power Point & promote on-line workshop participation at CRCs	1	Winter 2021	Minor	RVC Guideline subcom	Complete	Update the Chapter Historians Training PowerPoint. Add points for submittal of a completed MBO with phone discussion with RVC History prior August 30 of fiscal year. Promote on-line workshop participation at CRCs
5. Foster collaboration with other international societies to improve our historical research and support history-related activities of the Society	4	Summer 2021	None	Historical Committee	Ongoing	Continue work on collaboration. HC has links with similar groups in CIBSE & AiCARR - opportunity to pursue to work w/similar committees in CEN, International Institute of Ammonia Refrigeration (IIAR), International Institute of Refrigeration (IIR), & Global Cold Chain Alliance (GCCA).
6. Encourage younger members of ASHRAE to have interest in history-related activities of the Society	2	Summer 2021	None	Historical Committee	Complete	Proposing to keep the PAOE line item "For a local Chapter Historical activity performed by an actively engaged YEA member"
7. Leadership Recall Arrange for videos at Annual meeting 2021	2	Summer 2021	Verify \$1,000 Budget	Historical Committee	Ongoing	Arrange 2 Presidential interviews. Review other potential interviewees
8. Digitize Archived Journals & Transactions	3	Summer 2021	Major	Historical Committee/ PEC	Ongoing	Encourage digitalization of all Society Journals & Transactions
Jun 27–July 1, 2020 Austin, Tx						June 26-30, 2021, Phoenix, AZ



Shaping Tomorrow's
Built Environment Today

Publications Committee Report to
the Products Subcommittee of the Publishing and Education Council
Thursday, January 21, 2020, 12:30-2:00 p.m.

Action Items for PEC

(None)

Information Items

1. Publications Committee members voted to select the winner for the 2020 Journal Paper Award, the title and authors of which Sarah Foster has forwarded to the Honors and Awards Committee for award presentation at the 2021 ASHRAE Annual Conference.
2. Updates on the Publications Committee MBOs for the 2020-2021 Society year are included in *Attachment A*.
3. A Publications Committee subcommittee drafted survey questions regarding Presidential Member Tim Wentz's idea for a series of Application Guides, and a survey was sent to all ASHRAE members in December 2020. Results of the survey are detailed in *Attachment B*.

Respectfully submitted,

Hugh D. McMillan III, Chair
Publications Committee
19 January 2021

Publications Committee

MBOs for Society Year 2020-2021

Chair: Hugh D. McMillan III Date: 15 January 2020

Objective	SP 2019-2024*	Compl. by	Fiscal Impact	Resp. Party	Comment/Status
Reduce conference calls to bimonthly	3-3	July 2020	None	McMillan	Streamline committee operation by optimizing quantity of meetings. Discuss ASHRAE Journal Articles by exception only, meaning only if there is something exceptional to discuss about a particular article. <i>Completed</i>
Reorganize Planning Subcommittee	3-2, 3-3	January 2021	None	Mehboob	Planning Subcommittee to meet for 1 hour on Saturday of Winter and Annual meetings. May need to conduct some business between face-to-face meetings. Remainder of time Saturday will be dedicated to PTAR Subcommittee. <i>Completed</i>
Apply Evaluation Rating Sheet rubric to all existing special publications	3-1	June 2021	None	TAC Section Liaisons/Staff	Each TAC Section Liaison should apply the recently approved Special Publications Evaluation Rating Sheet for the TCs to which they are the liaison. This will require input from staff on some items of the rubric.
Institutionalize PTAR Subcommittee operations	3-2, 3-3	June 2021	None	Thrasher	Review and edit as necessary the PTAR Process and Forms and insert any required description in the MOP. <i>Unable to complete at present; waiting on RAC regarding final PTAR process.</i>
Mentors reach out to new members	3-2, 3-3	September 1, 2020	None	Tisdale, Murthy	Ask if any questions; review new member orientation PowerPoint if desired by new member. <i>Completed</i>
Additional Recommendations for Strategic Planning:					

*SP 2019-2024 = 2019-2024 Strategic Plan Initiative

Strategic Plan Notes:

Initiative 3: Organizational Streamlining

- Desired Outcome 1 (3-1 above): Evaluate the staff/volunteer support structure to optimize volunteer engagement, efficiency and effectiveness of the Society (e.g. volunteer efficiency). Present and implement findings to support the delivery of key products and services (e.g. Guidelines, Standards, Research, Publications, and Programs) with less cost, reduced time to market and an advancement in market responsiveness.
- Desired Outcome 2 (3-2 above): Redesign leadership/governance structure to support increased operational efficiency and effectiveness of the organization.
- Desired Outcome 3 (3-3 above): Targeted streamlining for committee operational effectiveness through the reduction of overlap and optimization of quantity, scopes.

**Application Guides –
Member Survey Sub Committee Report**
ASHRAE Publications Committee

Committee Members:

Adeeba Mehboob : Chair
Vikram Murthy : Member
Eduardo Donoso : Member
Cindy Michaels : Staff

Acknowledgement:

ASHRAE Marketing Department

Date: Jan 14, 2021

1.0 Background:

Presidential Member, Tim Wentz envisaged the idea of having ASHRAE publish 'Application guides' on various HVAC topics that would "be written in simple, straightforward language for those entering the consulting engineering field."

The Application Guides Subcommittee was established to establish the feasibility of publishing such guides. The Subcommittee investigated the idea initially and In its report of May 15, 2020 proposed a market survey for establishing the perceived need, the publication medium (virtual or paper), the sellable price point for such guides for 'a market driven process'.

This Market Survey Subcommittee was thereafter tasked to formulate the survey questionnaire for establishing the market demand for such guides. The survey was sent out on the survey monkey platform on the 9th December 2020 by ASHRAE's Marketing department and responses collected over a two week period.

2.0 The Survey Questionnaire

The survey questionnaire was drafted by the committee and finalized based on comments and feedback from the Publications Committee and the TC's. **Attached as Annexure A.**

Though the intent was to reach out and follow up with the groups of people listed below, ASHRAE marketing did not have a way of sending separate sets of mails except to the entire membership.

- All ASHRAE Membership – YEA more importantly
- Employers who train their employees
- Student branch members
- University graduates and faculty

- ASHRAE Learning Institute
- AASA
- TC's

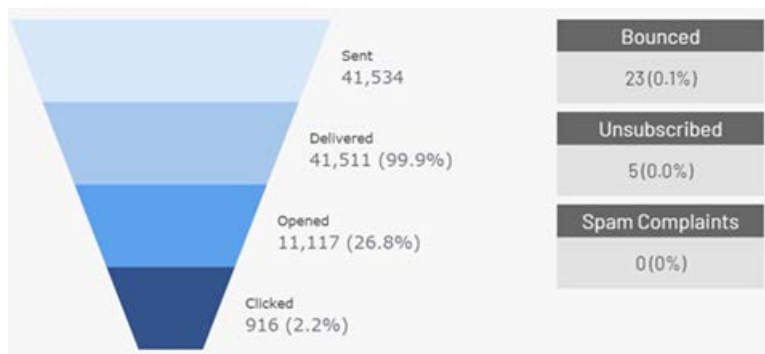
Survey Follow up through

- RVC YEAs to YEA Committees Chairs to their members
- DRC's to their Chapter Presidents to Industry
- RVC SA to SA Chairs to student members
- Refrigeration Chair

3.0 Survey Data

a. Total Number of Respondents

- There were **628 respondents**.



b. Response Times

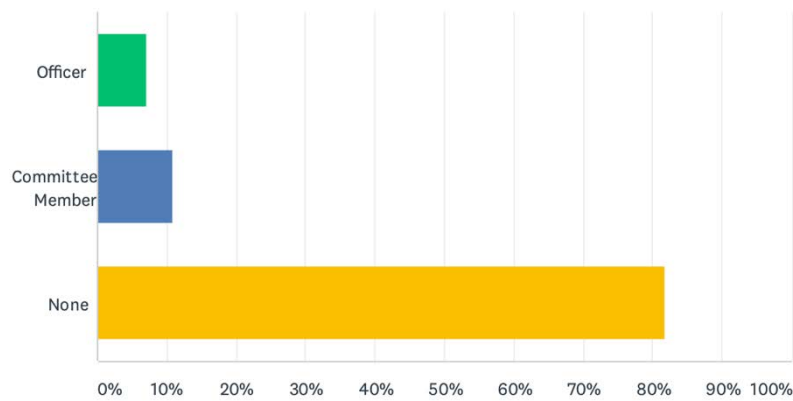
- 479 respondents in 24 hours.
- 133 over a week.
- 16 after one week.

c. Responses Chapter-wise

- Response received from 156 **Chapters** of 198 Total Chapters. **79%**
- Largest Response from **Non Chapter Members**, **10%** of respondents
- Chapters with Highest Responses
 - Illinois - 17
 - Atlanta - 15
 - Minnesota - 12
 - Rocky Mountain - 11
 - Houston-11
 - Sr. Louis -11
 - Toronto -11
 - Detroit - 10
- 151 Chapter members responded from **outside of USA and Canada**. **24%**.

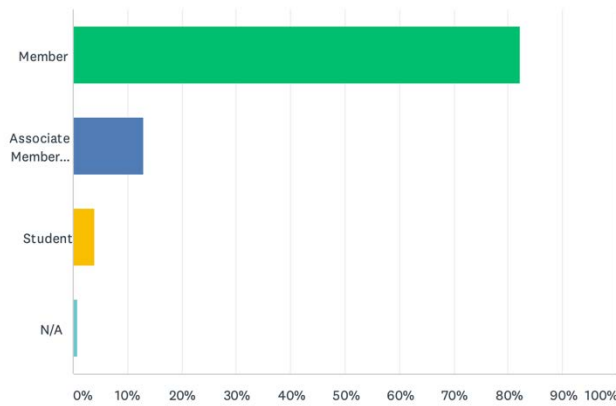
d. Respondents' Position In Chapter

- Majority respondents **hold no Chapter positions** currently.



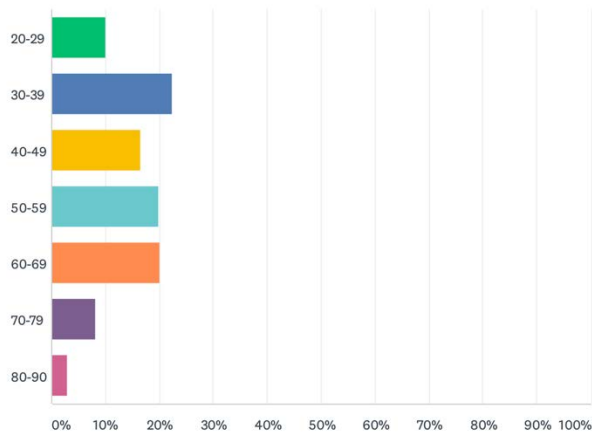
e. Respondents' Membership Status

- Majority respondents are **Full Members**.
- Only 25 students responded. (Need to confirm if Survey was sent to students? Unlikely)



f. Respondents' Age

- 207 Respondents under the age of 40 = 32% (YEA)
- 199 Respondents over the age of 60 = 31% (Senior)
- 232 Respondents between ages 40 to 60. = 37%



g. Respondents' Professions

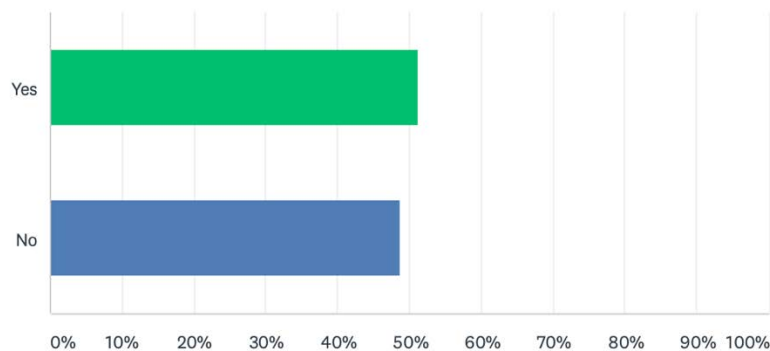
- 239 Respondents Consulting Engineers. 37%
- 60 Respondents Arch/Engineers. 9%
- 58 Respondents Manufacturers. 9%
- 56 Respondents Contractors. 9%
- 56 Respondents Gov/Health/Education. 9%

h. Respondents' Titles

- 340 Respondents identified as Engineers. 54%
- 204 Respondents identified as Executives. 33%

i. Have you owned or referred to HVACR Application Guides?

- 50% Respondents answered yes.

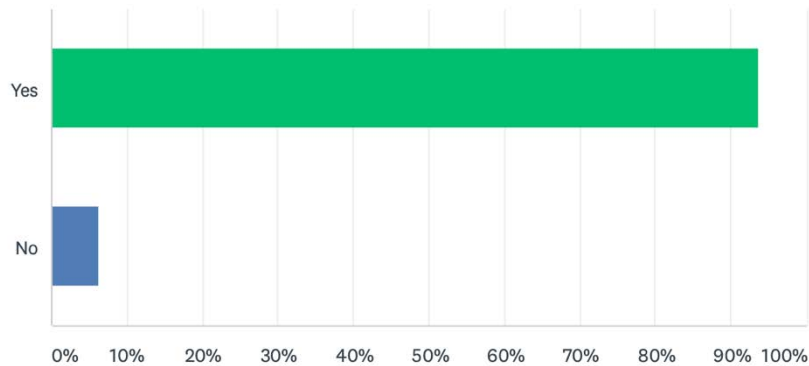


- 257 Respondents provided examples of HVACR Application Guides owned or referred to.
- 57 Respondents cited Manufacturer published Application guides like, Carrier, Trane, Price, Daikin, Mitsubishi etc.
- 20 Respondents cited guides from other organizations like CIBSE, ISHRAE, USGBC, RHEVA etc.

4.0 Survey Results

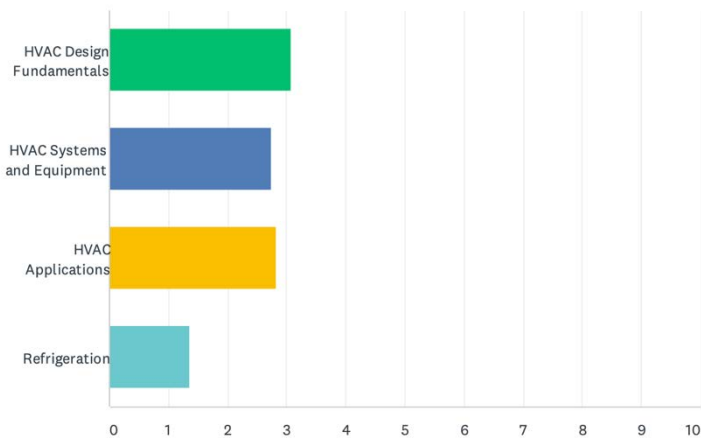
a. Interest in ASHRAE published Application Guides

- **598 respondents** showed interest in ASHRAE published Application guides.



b. Broad Subject Category Preference

- Equal Interest in all categories except Refrigeration. Likely because fewer people in from the Refrigeration industry responded?
- 427 Respondents.



c. Topic Preference

HVAC Design Fundamentals

- Cooling and heating Load
- Introduction to Air Conditioning Systems
- Air Conditioning Psychrometrics

HVAC Systems and Equipment

- Thermal Storage and Energy Recovery

- Variable Air Volume Systems
- Chiller Systems

HVAC Applications

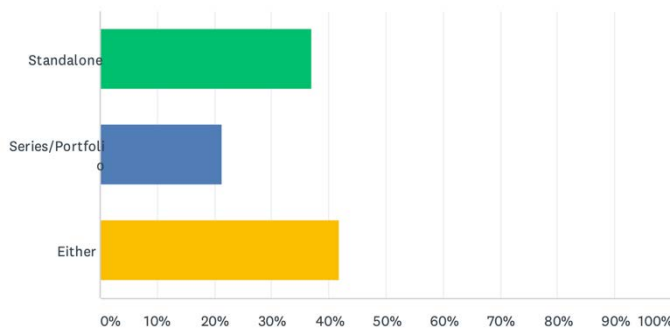
- HVAC Systems for Medical Facilities
- HVAC Systems for Data Centres
- HVAC Systems for Clean Rooms

Refrigeration

- Introduction to Refrigeration Systems
- Applications of Refrigeration Systems
- Line sizing for Commercial HVAC/R Systems

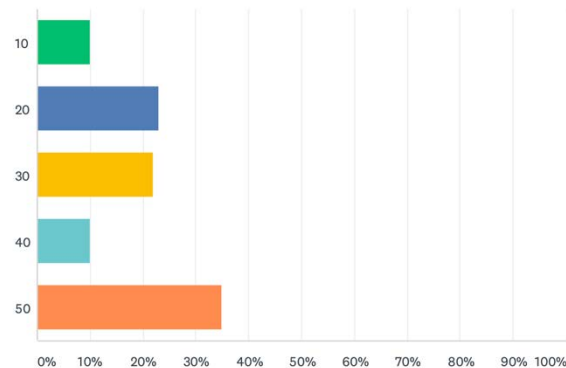
d. Preference for standalone or series/portfolio guides

- **No strong preference either way.**



e. Maximum expected pages of guide

- 149 Respondents, the majority, expect **50 pages**.
- 192 Respondents expect between **10-30 pages**.

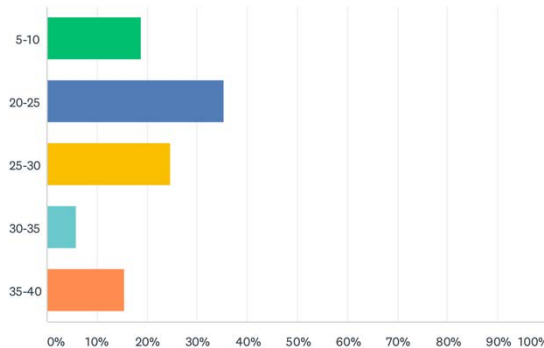


f. E book or Hard print

- 211 Respondents, the majority, expect **both**.
- Otherwise the preference is for an e book.

g. Maximum Selling Price

- 231 Respondents, the majority will pay **20 USD or lower**.
- 105 more Respondents are willing to pay upto 30 USD.



h. Reference Tools and Calculators and Videos

- The majority believe they will be a value addition.

i. Sample Comments

- Crowded Market, due to Manufacturers. Possible collaboration.
- ASHRAE will be a Neutral Party publication
- Look into Unaddressed Content.
- Dovetail with ASHRAE Handbooks
- High level, simple, not too academic
- Globalize

j. Authorship Volunteers

- 3 Volunteers for writing the guide and/or providing support.

k. Criticism

- 3 Respondents were unhappy with the proposed topics.

5.0 Way forward

- Are we happy with the number of respondents?
- Would we want more YEA responses?
- Are we happy with the survey?

- Initiate the Guides Portfolio Subcommittee
 - Decide on series or standalone concept
 - Decide on dovetailing handbook proposal – Contact Handbook Committee?
- Decide on the topic/s for publishing – based on survey results of selected topics or market void of proposed topics?
- Initiate the Authoring the Guides Subcommittee
 - Contact volunteers
 - Decide on reference tools and calculators and videos



**Research Journal Subcommittee
Report to Products Subcommittee of PEC
Meeting of Monday, January 11, 2021**

In Attendance

Members: Kelley Cramm, Birol Kılış, David Claridge, Jeffrey Spitler, Mark Owen
Guests: Stephanie Loeh, Cindy Michaels

Motions

None.

Information Items

1. Mr. Owen reviewed the financial statements with the subcommittee and took an action item to review future promotion plans with ASHRAE staff and the *Science and Technology for the Built Environment (STBE)* Journal's publisher Taylor & Francis. (*ACTION ITEM 1*)
2. Ms. Loeh, from Taylor & Francis, gave the Publisher's Report shown in *Attachment A* which including the following highlights:
 - STBE published 129 articles in 2019, 10 of which were Open Access.
 - There were 49,095 STBE article downloads in 2020 YTD; 65% higher than 2019 YTD.
 - 'Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP) by Omer Sarfraz & Christian K. Bach, was the most downloaded article with 2,236 downloads.
 - The top Altmetric-scoring article was 'Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)' by Mehdi Mehrabi & David Yuill, with a score of 10.
 - The top cited article was 'A review of fault detection and diagnostics methods for building systems' by Woohyun Kim, with 34 citations.
 - The 2019 Impact Factor is 1.356, ranking 42/63 in the Construction & Building Technology JCR category.
 - The journal's 2019 CiteScore is 2.6, ranking 32/83 in the Fluid Flow and Transfer Processes Scopus category.
3. Dr. Spitler gave the Editor's Report with information including that the journal received 330 submissions in the last year, publishing 105 papers and 8 editorials. (*Attachment B*)
4. Dr. Spitler reported that nominations for STBE Best Paper were requested and ranked by a jury (Culp, Owen, Bernier, Toftum). In December 2019 the jury's recommendation was sent the Honors and Awards Committee.

Respectfully submitted,
Kelley Cramm, Research Journal Subcommittee Chair
January 11, 2021

Attachment A
Research Journal Subcommittee Report to PEC - Products Subcommittee



Science and Technology for the Built Environment

Confidential Publishing Report

July 2020

Agenda

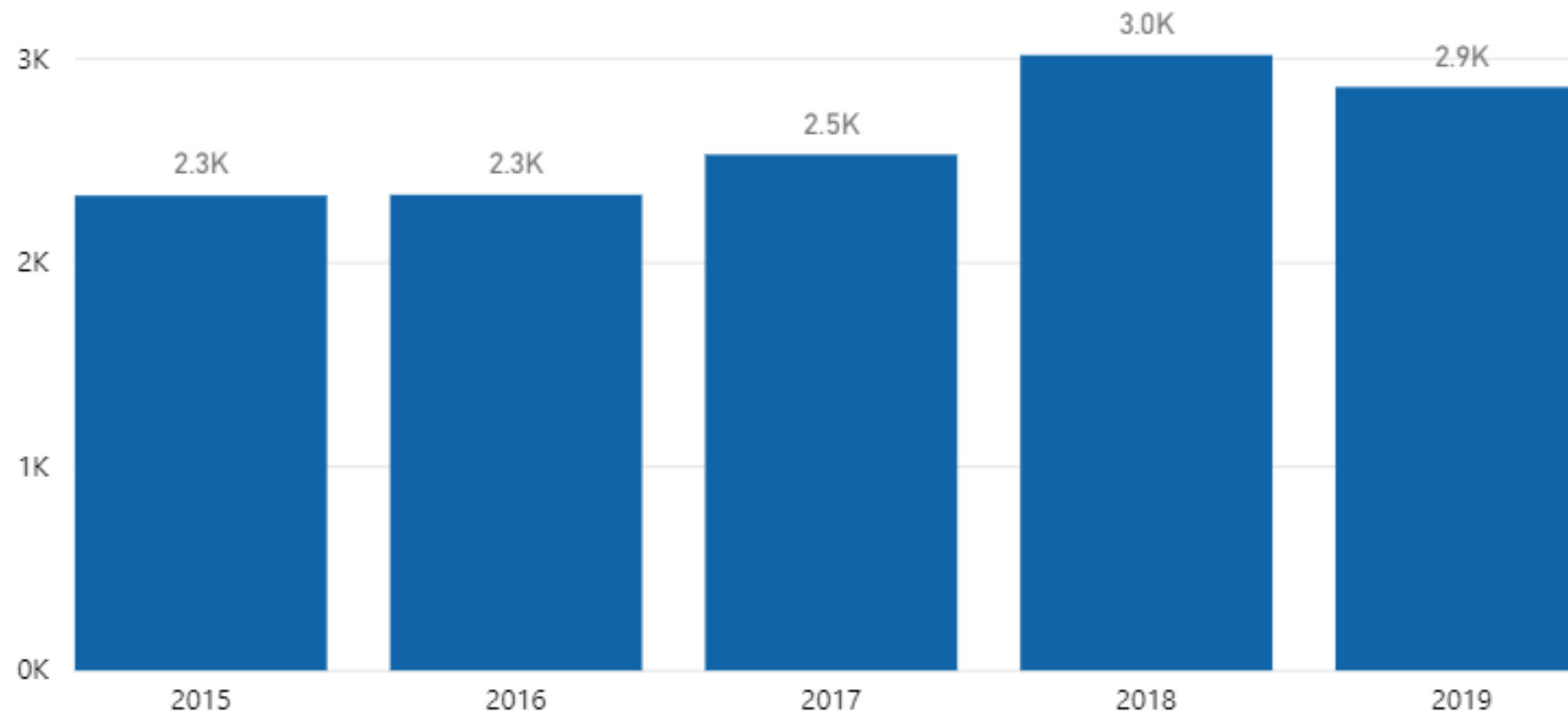
1. Global Reach
2. Altmetric Analysis
3. Citation Analysis
4. Marketing Report
5. Production Report
6. Author Survey
7. Resources
8. Journal Contacts

Highlights

- The Journal received **49,095** article downloads in 2020 YTD, which is **65%** higher than downloads received in 2019 YTD.
- The most downloaded article is '**Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP)**' by **Omer Sarfraz & Christian K. Bach**, with **2,236** downloads.
- The top Altmetric-scoring article was '**Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)**' by **Mehdi Mehrabi & David Yuill**, with a score of **10**.
- The top cited article was '**A review of fault detection and diagnostics methods for building systems**' by **Woohyun Kim**, with **34** citations.
- The journal's 2019 Impact Factor is **1.356**, ranking **42/63** in the **Construction & Building Technology** JCR category.
- The journal's 2019 CiteScore is **2.6**, ranking **32/83** in the **Fluid Flow and Transfer Processes** Scopus category.
- The Journal produced **129** publications in 2019, **10** of which were Open Access.

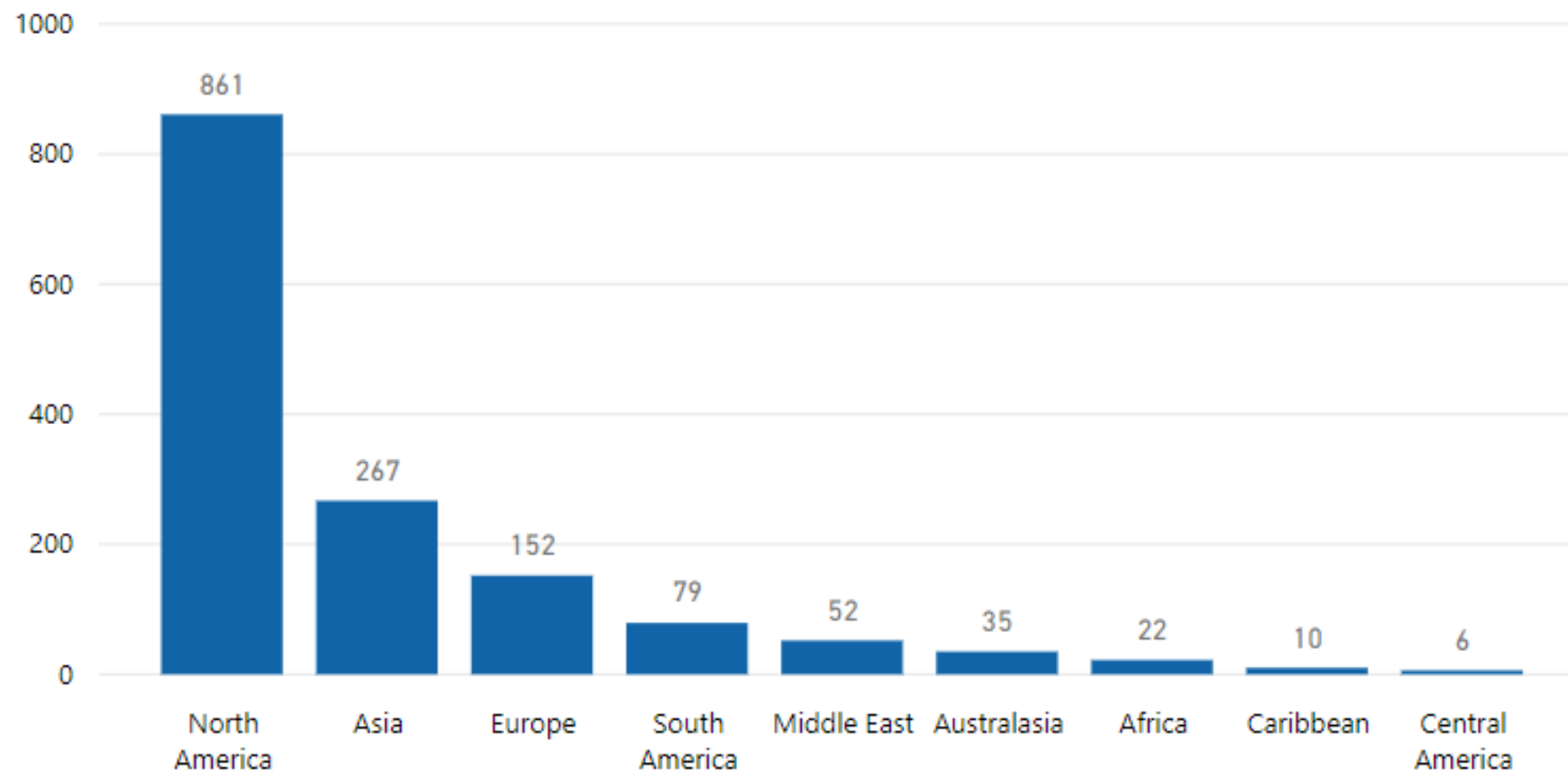
Global Reach – Circulation

Number of Institutions with access via Sales Deal, Subject and Non-Sales Deal Subscriptions

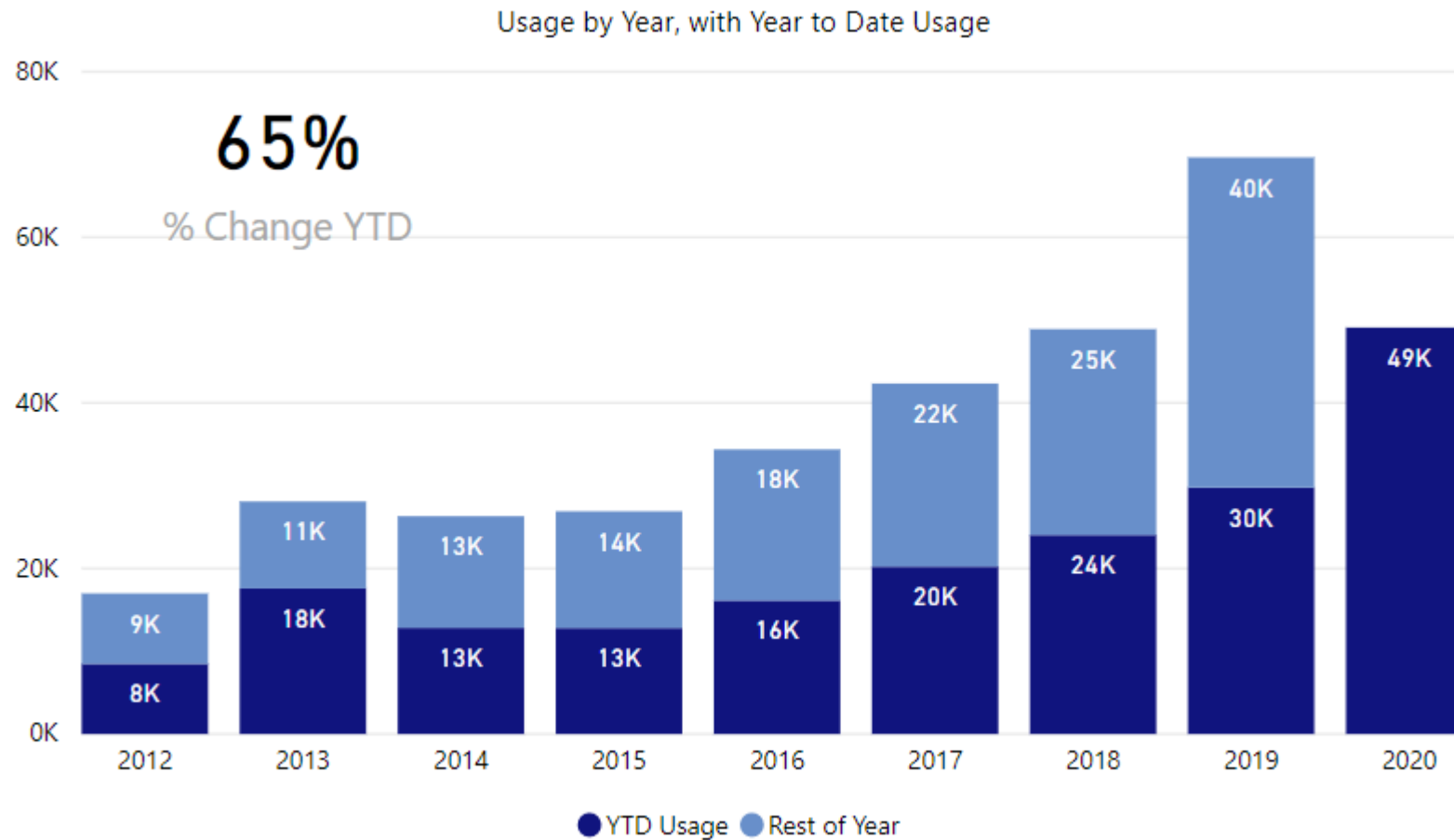


EBSCO Circulation (2019)

EBSCO Coverage 2019 by Region

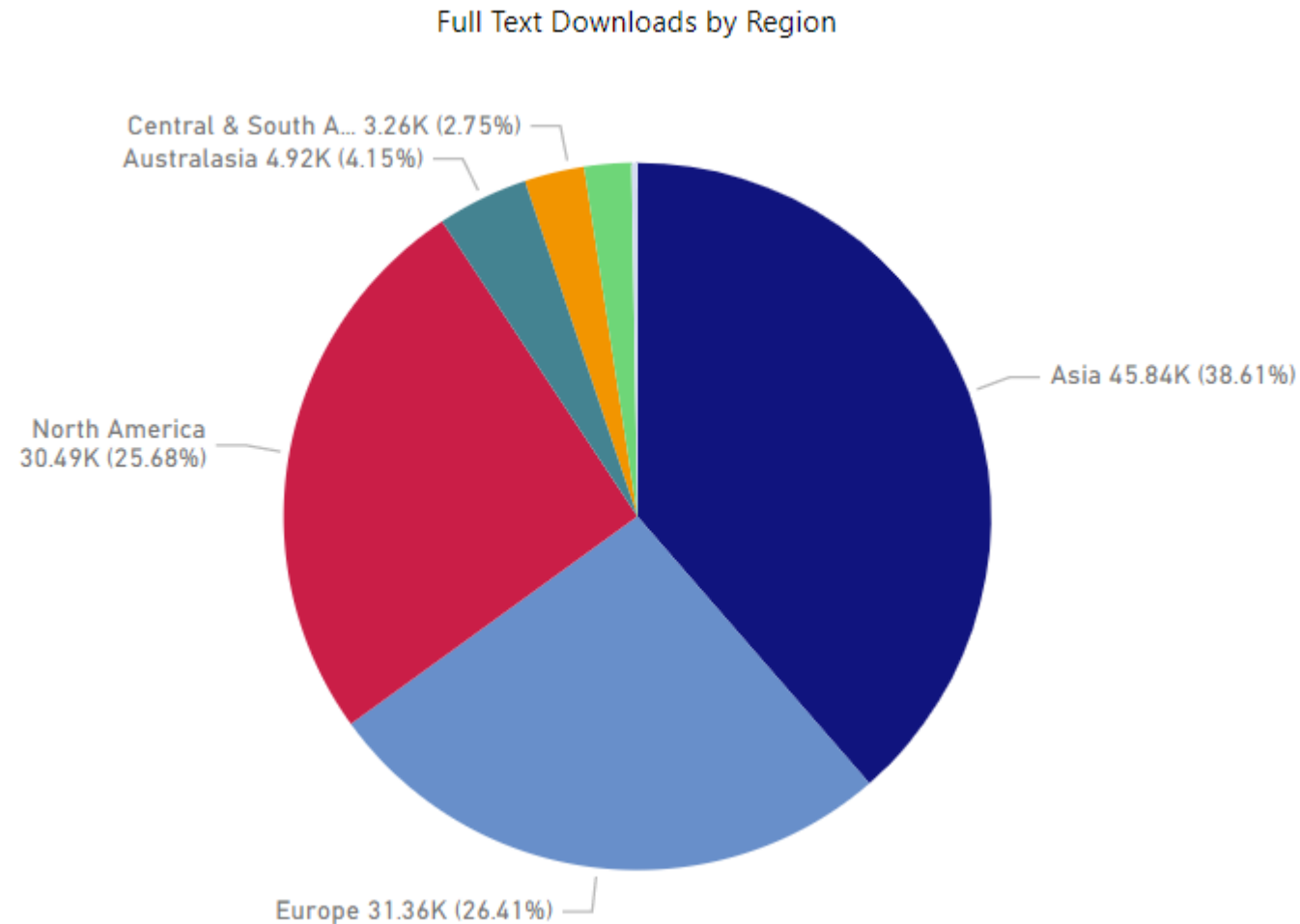


Article Downloads – Taylor & Francis Online (TFO) Usage



Percentage Change YTD is from 2019 YTD to 2020 YTD.

Article Downloads by Region (2019-2020 Year to Date)



Most Downloaded Articles in the Past 12 Months (from Past Three Volume Years)

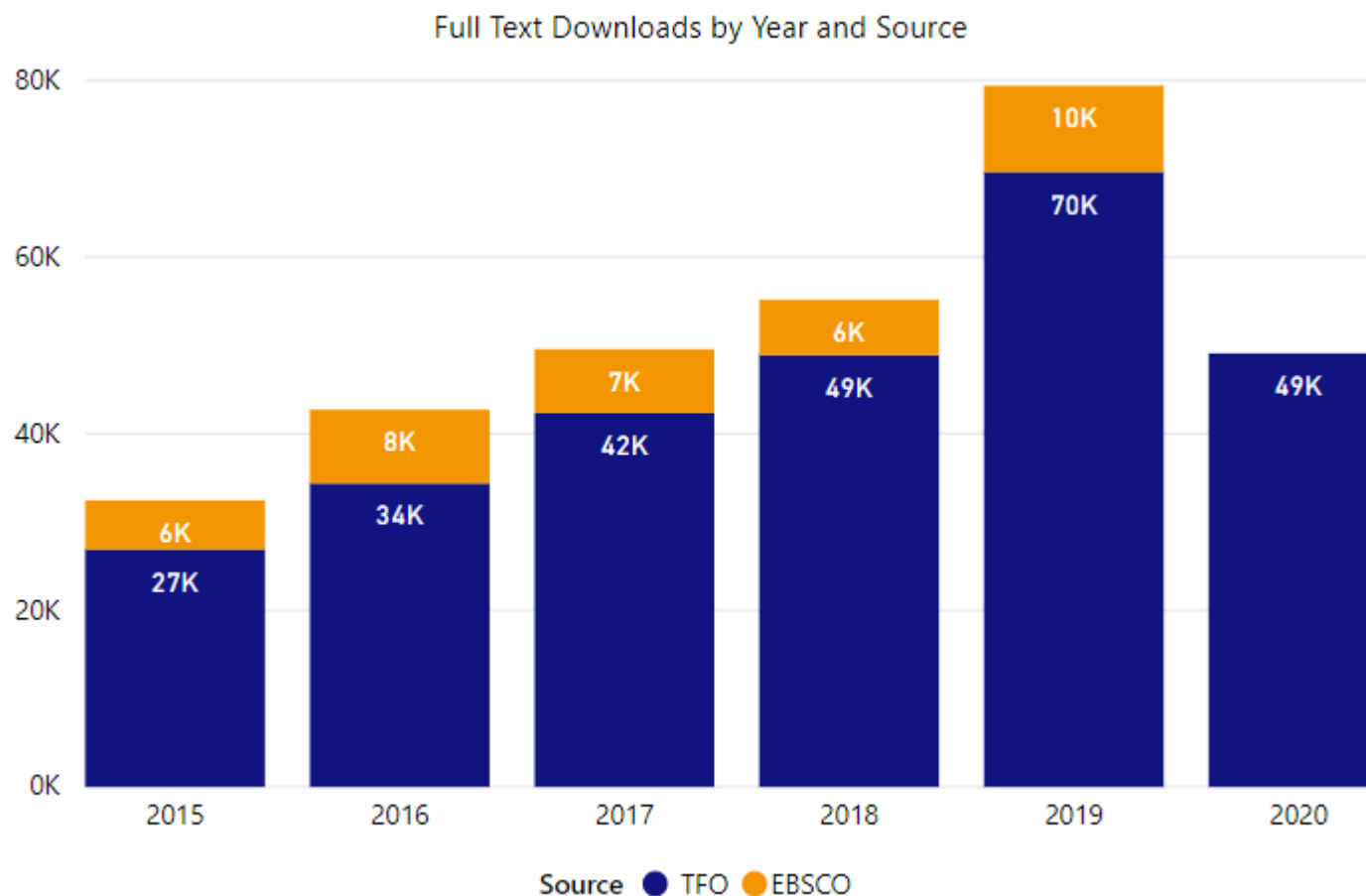
Article Title	Author	Volume, Issue	Number of Downloads	Open Access
Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP)	Omer Sarfraz & Christian K. Bach	Volume 24 Issue 10	2,236	Yes
Traffic noise level predictions for buildings with windows opened for natural ventilation in urban environments	Moon Keun Kim, et al.	Volume 23 Issue 5	1,618	Yes
Design optimization and validation of high-performance heat exchangers using approximation assisted optimization and additive manufacturing	Daniel Bacellar, et al.	Volume 23 Issue 6	1,530	Yes
Supermarket system characteristics and operating faults (RP-1615)	Alireza Behfar, et al.	Volume 24 Issue 10	1,325	Yes
Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)	Mehdi Mehrabi & David Yuill	Volume 25 Issue 6	1,318	Yes
Development of New Low-GWP Refrigerants–Refrigerant Mixtures Including HFO-1123	Mai Hashimoto, et al.	Volume 25 Issue 6	1,193	Yes
A heat transfer and friction factor correlation for low air-side Reynolds number applications of compact heat exchangers (1535-RP)	Pradeep Shinde & Cheng-Xian Lin	Volume 23 Issue 1	1,106	Yes
Ventilation strategies and air quality management in passenger aircraft cabins: A review of experimental approaches and numerical simulations	Hossam A. Elmaghraby, et al.	Volume 24 Issue 2	1,091	No
HVAC control loop performance assessment: A critical review (1587-RP)	Zheng O'Neill, et al.	Volume 23 Issue 4	933	Yes
Window and door opening behavior, carbon dioxide concentration, temperature, and energy use during the heating season in classrooms with different ventilation retrofits—ASHRAE RP1624	Anna Heebøll, et al.	Volume 24 Issue 6	931	Yes

Top Institutions by Downloads (Past 12 Months)

Institution name	Number of Downloads
The University of Manchester	1,232
Hong Kong Polytechnic University	946
Tongji University	903
Tianjin University	842
Purdue University	730
Xian Jiaotong University	707
Purdue University Calumet	705
First Affiliated Hospital of Medical College of Xi'an Jiaotong University	644
National Renewable Energy Lab	621
Oklahoma State University - Stillwater and Tulsa Oklahoma State University	604



Note: Consortia have been removed from this table.

Article Downloads by Source



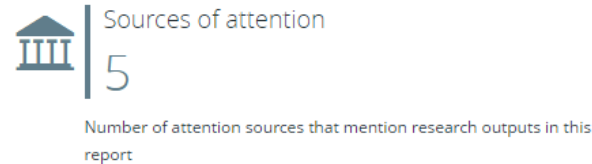
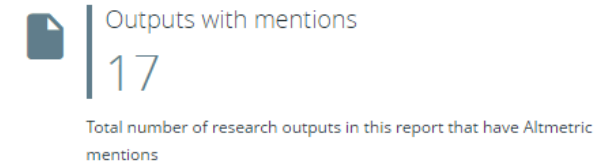
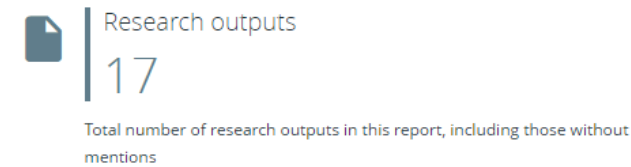
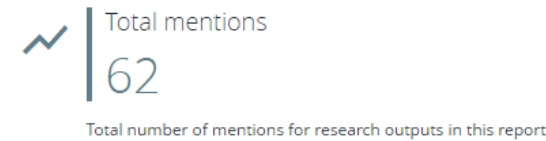
Altmetric Analysis – Top Altmetric Scores (Past Year)

Report generated July 2020

RANK	ATTENTION SCORE	RESEARCH OUTPUT			
#1		Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705) Article in Science and Technology for the Built Environment , June 2019	#6		Engineering control of respiratory infection and low-energy design of healthcare facilities Article in Science and Technology for the Built Environment , January 2015
#2		Integrating IAQ control strategies to reduce the risk of asymptomatic SARS CoV-2 infections in classrooms and open plan offices Article in Science and Technology for the Built Environment , July 2020	#7		IAQ 2016: Defining indoor air quality: Policy, standards and best practices Article in Science and Technology for the Built Environment , December 2017
#3		Modeling infection risk and energy use of upper-room Ultraviolet Germicidal Irradiation systems in multi-room environments Article in Science and Technology for the Built Environment , January 2015	#8		Addressing the building energy performance gap with measurements Article in Science and Technology for the Built Environment , February 2020
#4		Meta-analysis of summertime indoor temperatures in new-build, retrofitted, and existing UK dwellings Article in Science and Technology for the Built Environment , June 2019	#9		Characterization, testing, and optimization of load aggregation methods for ground heat exchanger response-factor models Article in Science and Technology for the Built Environment , September 2019
#5		Indoor air quality in 24 California residences designed as high-performance homes Article in Science and Technology for the Built Environment , January 2015	#10		Development of a test method to determine the effectiveness of UVC systems on commercial cooking effluent (RP-1614) Article in Science and Technology for the Built Environment , July 2020

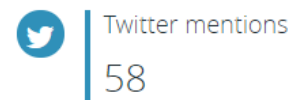
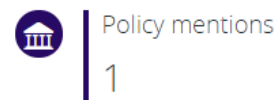
Overview and Source Breakdown of Altmetric Attention Score (Past Year)

REPORT OVERVIEW



ATTENTION SOURCE BREAKDOWN

The number of mentions from each source that Altmetric has tracked for the research outputs in this report.



Link to Altmetric Report

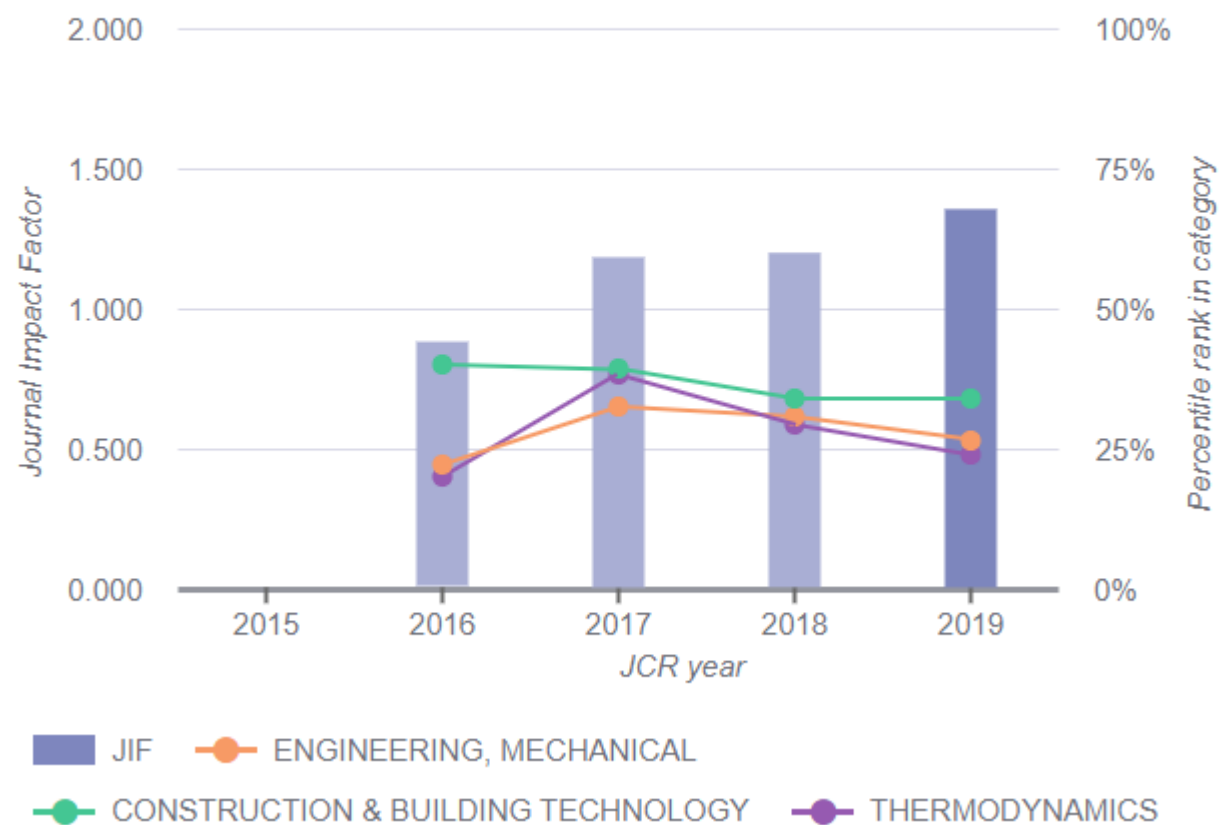
The link below can be used to access a report containing the latest Altmetric attention to your journal. This data is updated daily, so can be used to keep track of trending articles.

<https://www.altmetric.com/explorer/report/269fecca-3cf3-409d-956b-56161e477766>

Impact Factor Chart

1.356

2019 Journal Impact Factor



Impact Factor & Ranking

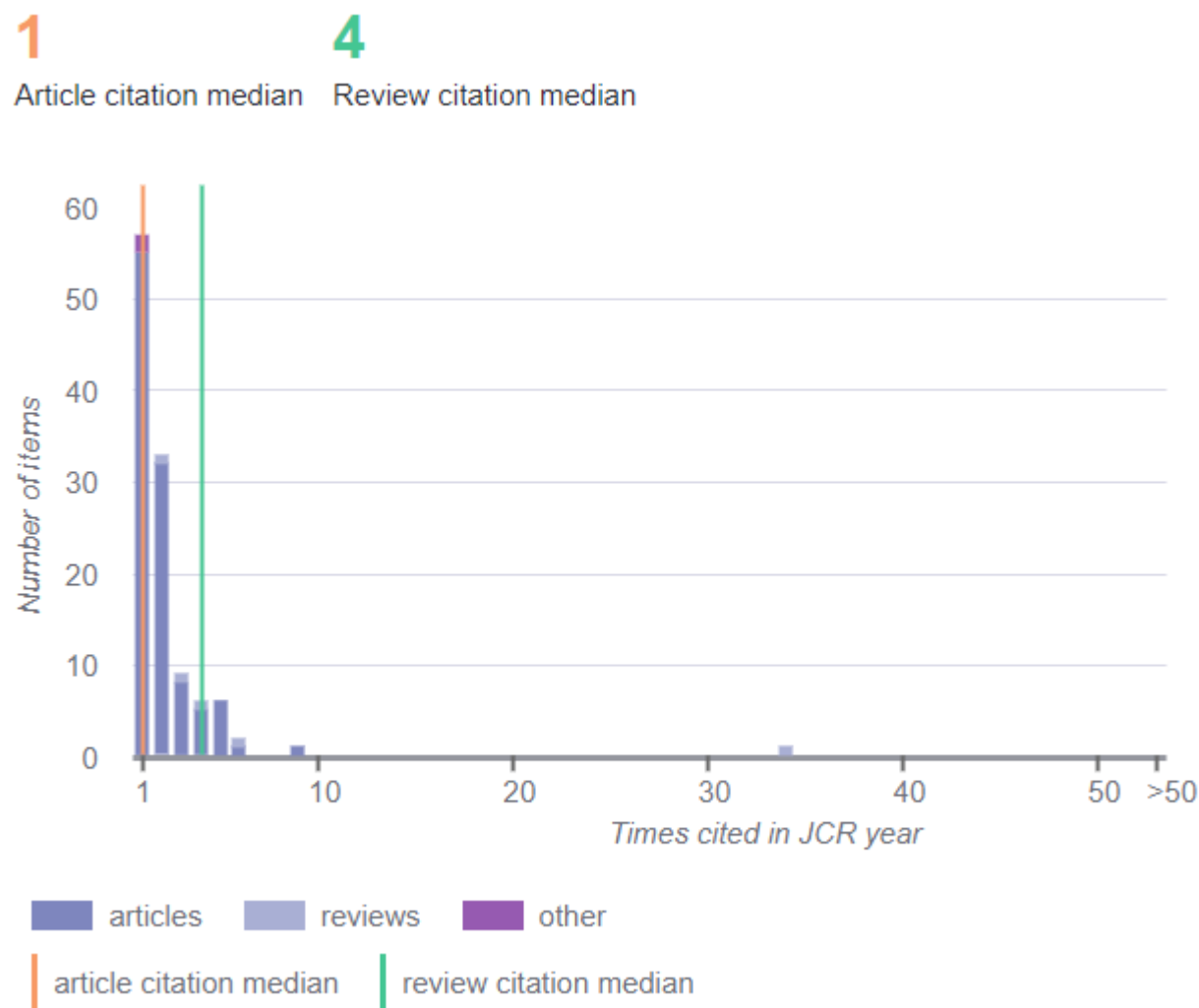
Impact Factor Year	Impact Factor	Rank
2013	0.745	31/58 Construction & Building Technology, 36/55 Thermodynamics, 75/126 Engineering, Mechanical
2014	0.673	35/59 Construction & Building Technology, 43/55 Thermodynamics, 92/130 Engineering, Mechanical
2015	0.871	37/61 Construction & Building Technology, 43/58 Thermodynamics, 86/132 Engineering, Mechanical
2016	0.928	37/61 Construction & Building Technology, 47/58 Thermodynamics, 97/130 Engineering, Mechanical
2017	1.183	38/62 Construction & Building Technology, 37/59 Thermodynamics, 87/128 Engineering, Mechanical
2018	1.199	42/63 Construction & Building Technology, 43/60 Thermodynamics, 90/129 Engineering, Mechanical
2019	1.356	42/63 Construction & Building Technology, 47/61 Thermodynamics, 96/130 Engineering, Mechanical

2019 Impact Factor Self-Citation Rate: 32 self-citations out of 274 – 11.67%.

Top Cited Articles – 2019 Impact Factor

Article Title	First Authors	Volume	Issue	Document Type	Citations in 2019
A review of fault detection and diagnostics methods for building systems	Kim, Woohyun	24	1	Review	34
Development and implementation of a thermostat learning algorithm	Gunay, H. Burak	24	1	Article	9
Improvements on the American Society of Heating, Refrigeration, and Air-Conditioning Engineers Handbook equations for sizing borehole ground heat exchangers	Li, Min	23	8	Article	6
Review and analysis of fuel cell-based, micro-cogeneration for residential applications: Current state and future opportunities	Milcarek, Ryan J.	23	8	Review	6
Development of prototypical buildings for urban scale building energy modeling: A reduced order energy model approach	Yang, Guang	24	1	Article	5
Development of a standard capture efficiency test method for residential kitchen ventilation	Kim, Yang-Seon	24	2	Article	5
Multi-objective optimization of thermo-acoustic devices using teaching-learning-based optimization algorithm	Rao, Ravipudi Venkata	23	8	Article	5
Sizing heating, ventilating, and air-conditioning systems under uncertainty in both load-demand and capacity-supply side from a life-cycle aspect	Huang, Pei	23	2	Article	5
Studying the performance of a dehumidifier with adsorbent coated heat exchangers for tropical climate operations	Oh, Seung Jin	23	1	Article	5
Heat and mass transfer performance comparison between a direct-contact liquid desiccant packed bed and a liquid-to-air membrane energy exchanger for air dehumidification	Ge, Gaoming	23	1	Article	5

Article Citation Distribution – 2019 Impact Factor

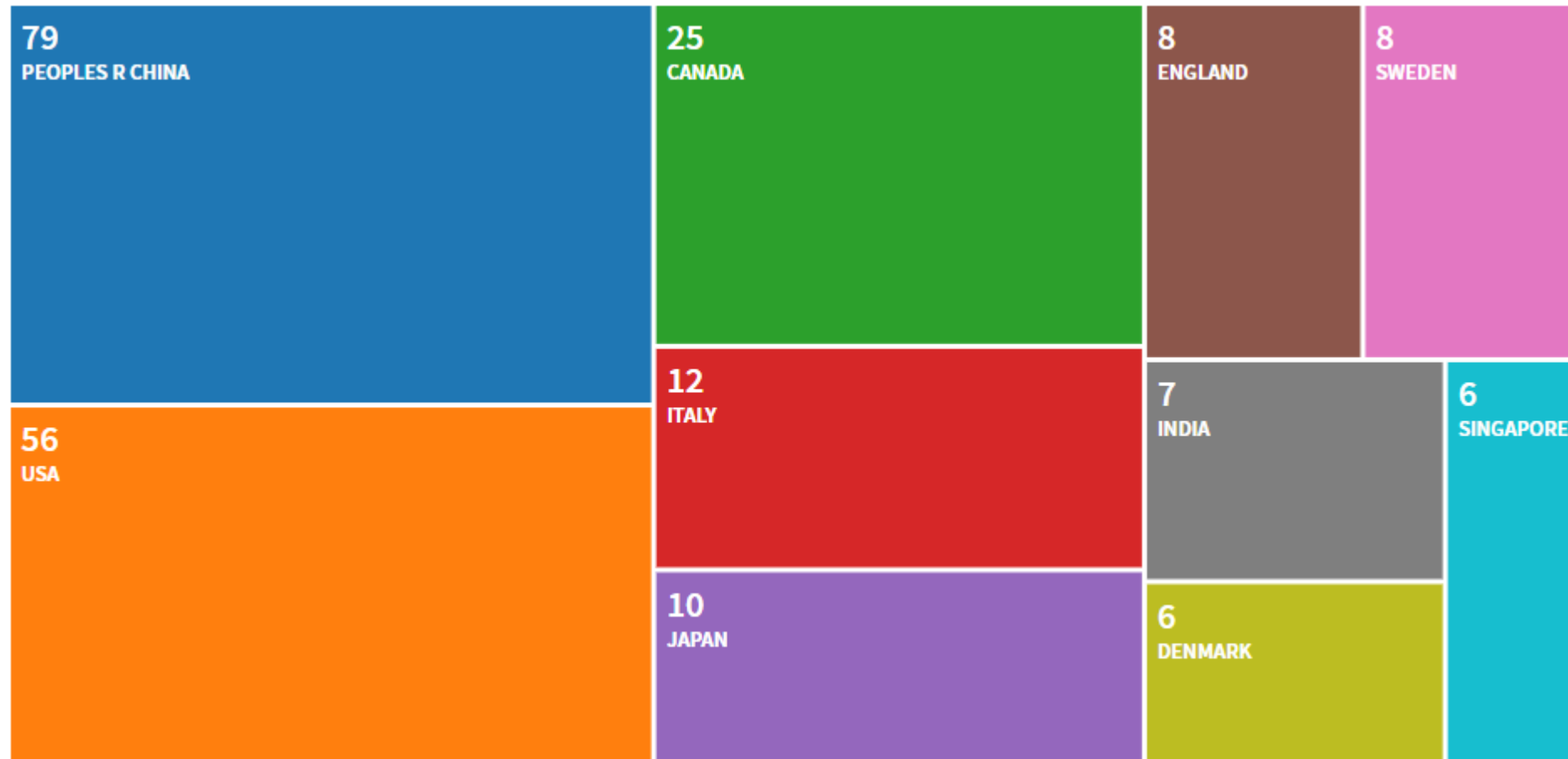


Citing Sources – 2019 Impact Factor



Note: Number of citing articles from each journal.

Citing Regions – 2019 Impact Factor



Note: Shows number of citing articles from each region. Web of Science lists England, Scotland, Wales and Northern Ireland separately.

CiteScore and Ranking

CiteScore	Score	Rank
2015	1.7	18 / 48 Fluid Flow and Transfer Processes, 49 / 101 Environmental Engineering, 49 / 155 Building and Construction
2016	1.7	23 / 53 Fluid Flow and Transfer Processes, 55 / 155 Building and Construction, 56 / 102 Environmental Engineering
2017	1.9	22 / 77 Fluid Flow and Transfer Processes, 60 / 115 Environmental Engineering, 64 / 167 Building and Construction
2018	2.4	27 / 83 Fluid Flow and Transfer Processes, 56 / 124 Environmental Engineering, 63 / 176 Building and Construction
2019	2.6	32 / 83 Fluid Flow and Transfer Processes, 61 / 132 Environmental Engineering, 62 / 174 Building and Construction

Marketing – Objectives

Through various campaigns and the marketing of your journal, our objectives are to:

- Drive and sustain usage
- Demonstrate impact
- Grow international reach
- Attract high quality submissions
- Increase citations
- Increase author and researcher engagement
- Increase membership.

Reaching Readers Emails

In total, 141 STBE articles have been promoted via the RR campaign since January 2019.

Article Title	Contact Count
A study of the effects of water capacity on the thermal performance of water-in-glass evacuated tube solar collectors applied to space heating	2,804
Investigating the influence of different speeds and directions of winds on the performance of split air conditioning systems	1,340
Development of control quality factor for HVAC control loop performance assessment—II: Field testing and results (ASHRAE RP-1587)	1,251
Data-driven energy models for existing VFD-motor-pump systems	1,207
Virtual measurement of the air properties in air-handling units (AHUs) or virtual re-calibration of sensors	1,207
The impact of rock fracturing and pump intake location on the thermal recovery of a standing column well: model development, experimental validation, and numerical analysis	1,141
Study of thermal performance of an air source heat pump heating for suburban residential buildings in Beijing	1,081
Determine the absolute roughness of phenolic duct (RP-1764)	1,004
A numerical analysis and optimization of the dynamic performance of a multipurpose solar thermal system for residential applications	997
Applicability of Control Algorithms for Variable Water-flow Control Practice of Central Air-conditioning Cooling Water System	985

Alerts and Social Media

New Contents Alerts:

The journal can be found at **<https://www.tandfonline.com/UHVC>** where anyone can sign up for new contents alerts. Your journal currently has **191** active e-Table of Contents (e-ToC) subscribers.

Social Media

Taylor & Francis has official social media accounts for each of the major subject areas that provides journal level marketing.

- You can find your relevant Taylor & Francis social media feeds here:
 - Twitter: <http://www.twitter.com/TandFSTEM>
 - Facebook: <http://www.facebook.com/TandFScience>
- You can find the social media guide for editors here: **<http://bit.ly/ER-SocialMedia>**

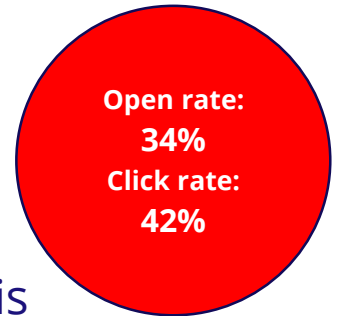
Marketing for Authors

- Authors anniversary emails are sent at 2 weeks, 5 weeks, 3 months, 6 months and 12 months following publication.
- These emails use social sharing buttons to encourage authors to share online, with their own audience, in their own voice.
- Sent to all authors regardless of marketing opt-in status – this is a service email.
- Average open rate of 38% and a click through rate of 8%, considerably higher than industry averages*.



*Current media & publishing industry open rate is 22.15%, click rate 4.61% <https://mailchimp.com/resources/email-marketing-benchmarks/>

Citation Alerts



- Using Colwiz data, we now send citation alert emails to T&F authors where their paper is less than 2 years old, and has been cited by a new article published on TFO. These emails are currently averaging a 34% open rate and 42% click rate.
- This service currently goes to opted-in authors only, though we are investigating including all authors as a service/transaction message.
- To encourage more authors to receive these alerts, please encourage them to check their marketing subscription status at:
<http://pages.email.taylorandfrancis.com/taylorandfrancissubscriptioncenter>

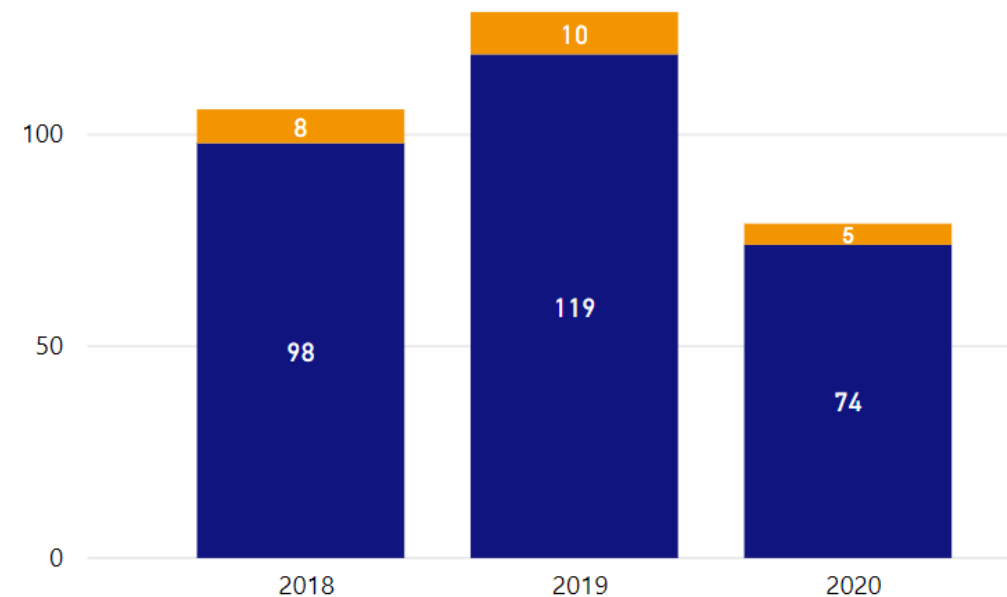
**Current media & publishing industry open rate is 22.15%, click rate 4.61% <https://mailchimp.com/resources/email-marketing-benchmarks/>*

Production – Published Content (Volumes 2018-2020)

Article Type	Distinct Count of Documents
Article	289
Editorial	16
Guest Editorial	4
Correction	2
Corrigendum	2
Addendum	1
Total	314

Number of Articles Published by Volume Year - with OA Split

Open Access Article? ● Non-Open Article ● Open Article



For more information on Open Access and Plan S, please visit:

- <http://authorservices.taylorandfrancis.com/publishing-open-access-with-taylor-francis/>
- <https://editorresources.taylorandfrancis.com/peersupport/coalition-s-plan-s-and-accelerating-oa/>

Production Schedule (January 2019 – July 2020)

Online Issue Published

Issue Number	2019	2020
01	14 February 2019	07 January 2020
02	19 March 2019	30 January 2020
03	19 March 2019	11 February 2020
04	23 April 2019	26 February 2020
05	29 May 2019	22 April 2020
06	08 July 2019	28 May 2020
07	02 August 2019	29 June 2020
08	08 October 2019	
09	29 October 2019	
10	12 December 2019	

Print Issue Published

Issue Number	2019	2020
01-05	27 June 2019	15 May 2020
06-10	19 December 2019	

Page Count Report (Volume Years 2019 and 2020)

Volume Year ▲	Budgeted Pages	Actual Pages	Number of Pages Remaining
2019	1520	1524	-4
2020	1520	1168	352

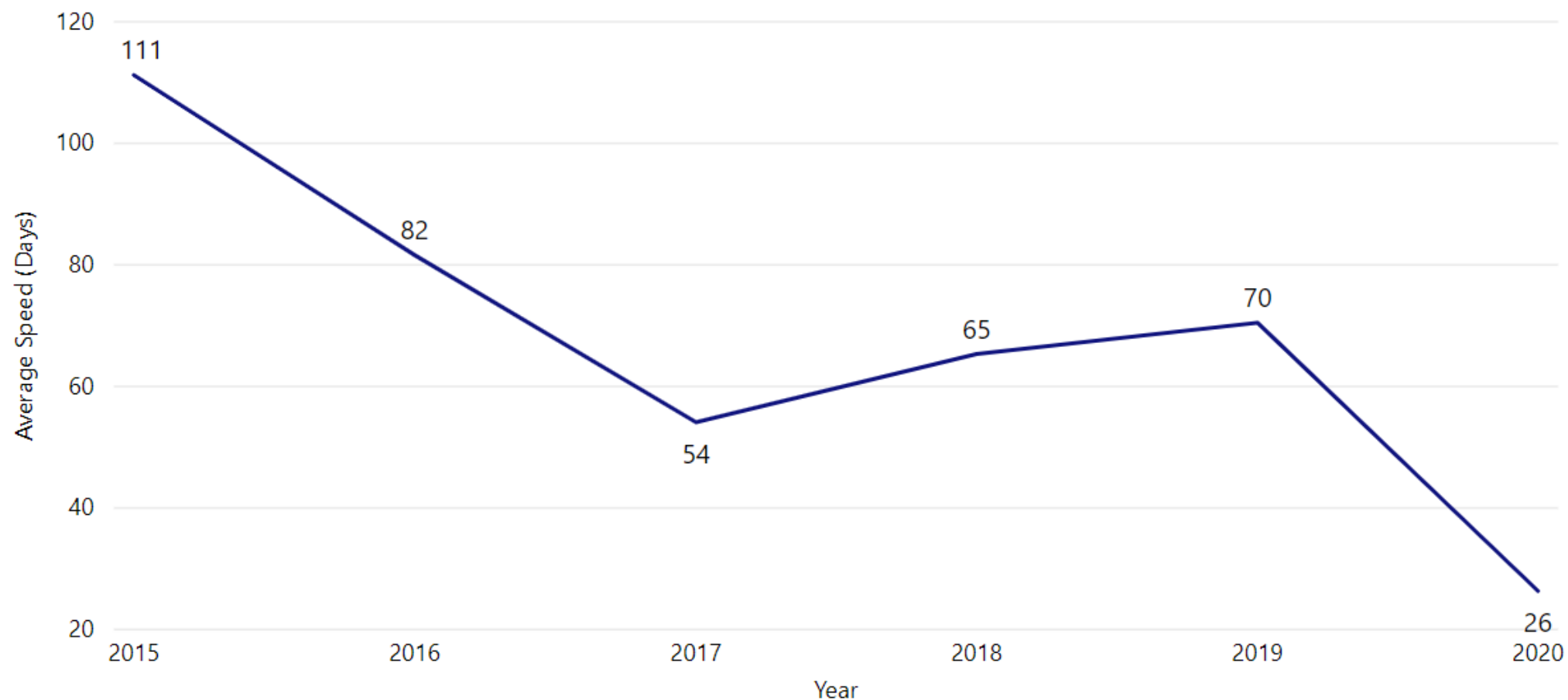
Backlog Report (Volume Years 2019 and 2020)

Manuscript Type	Number of Manuscripts	Number of Typeset Pages
Article	30	431
Total	30	431

The current backlog contains enough articles for the next 2.8 issues.

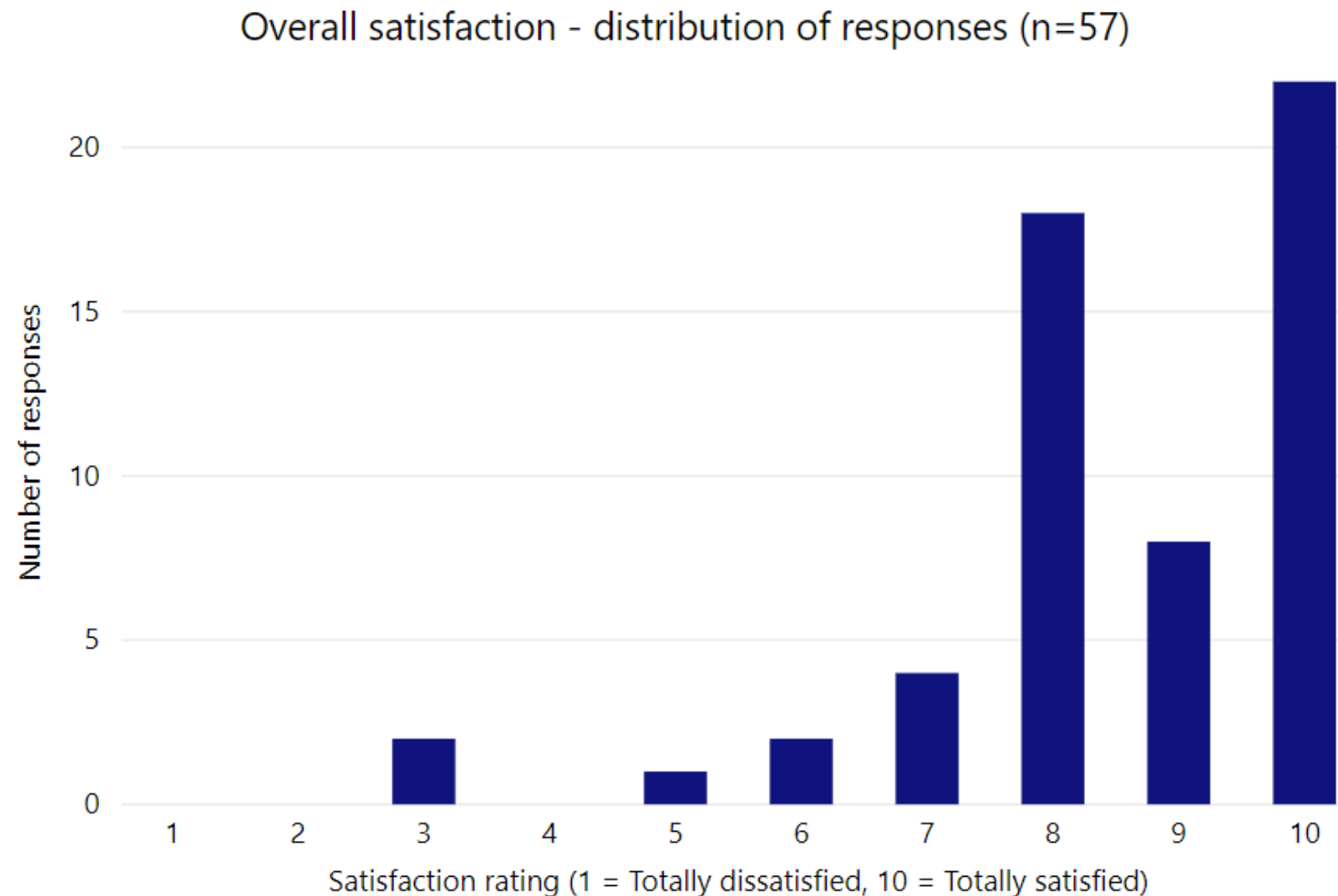
The oldest article not yet assigned to an issue was received in Production on 24 February 2020.

Average Speed of Article Publication*

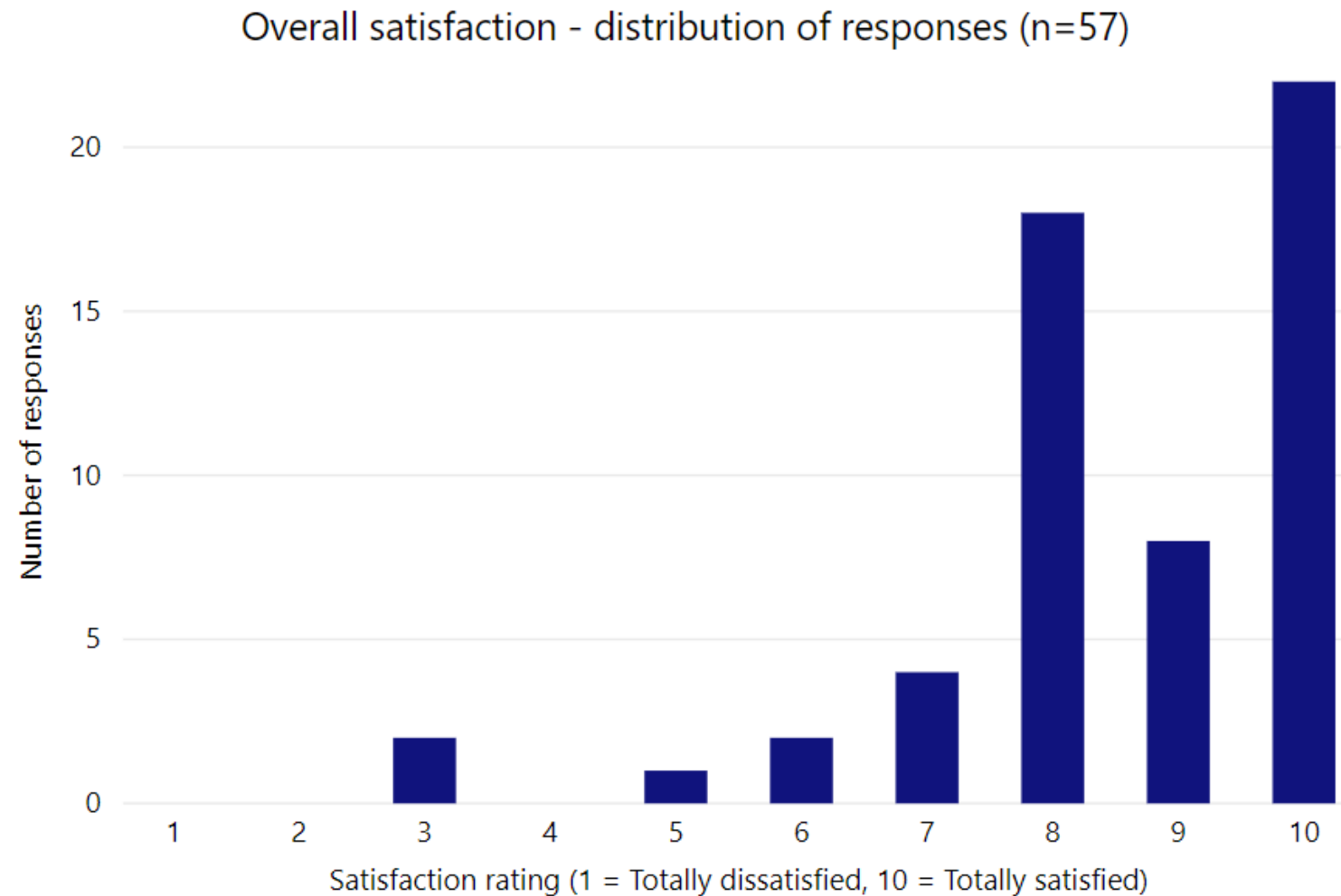


* mean days from submission to Central Article Tracking System (CATS) to online publication.

Author Survey – Overall Satisfaction (2018-2020)



Satisfaction with Refereeing Process (2018-2020)



Resources

News, support and guidance for Editors, authors and Librarians:

EDITORRESOURCES
Supporting Taylor & Francis journal editors

<http://editorresources.taylorandfrancisgroup.com/>

AUTHORSERVICES
Supporting Taylor & Francis authors

<http://authorservices.taylorandfrancis.com>

LIBRARIANRESOURCES
Taylor & Francis supporting librarians

<https://librarianresources.taylorandfrancis.com/>



A bi-monthly campaign designed for Editors.
Sign up here: http://bit.ly/tandf_ppp



Sign up for updates, tips and talking points from **Author Services**, **Editor Resources** and **Librarian Resources** websites straight to your inbox:
<https://authorservices.taylorandfrancis.com/category/insights/>



[@tandfonline](#)
[@tandfnewsroom](#)



[@TaylorandFrancisGroup](#)

Development Initiatives

We need research from around the world to address global challenges. We remain committed, therefore, to supporting emerging region researchers on their publishing journeys.

For more information on the Taylor & Francis development initiatives, please visit:

- <http://taylorandfrancis.com/about/corporate-responsibility/development-initiatives>
- <https://authorservices.taylorandfrancis.com/star>
- <https://librarianresources.taylorandfrancis.com/services-support/development-initiatives>
- <https://www.taylorandfrancis.com/sdgo>



Feedback

We'd love to hear what you think! If you have any feedback or suggestions for improvement, please fill out the below questionnaire using the following link or scan the QR code:

<https://www.surveymonkey.co.uk/r/TTJG7TP>



Journal Contacts

Editorial

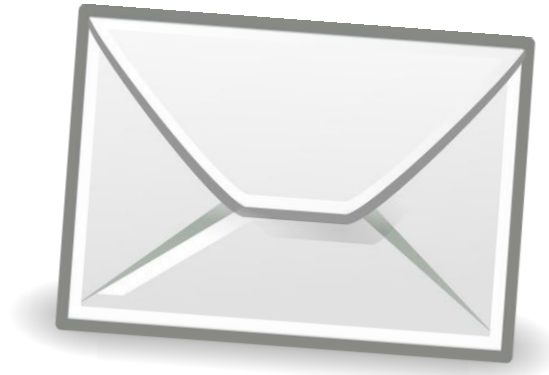
- Portfolio Manager – stephanie.loeh@taylorandfrancis.com

Production

- Production Editor – UHVC-production@journals.taylorandfrancis.com

Peer-Review

- Peer Review Help Desk – PRSHelp@tandf.co.uk



Science and Technology for the Built Environment

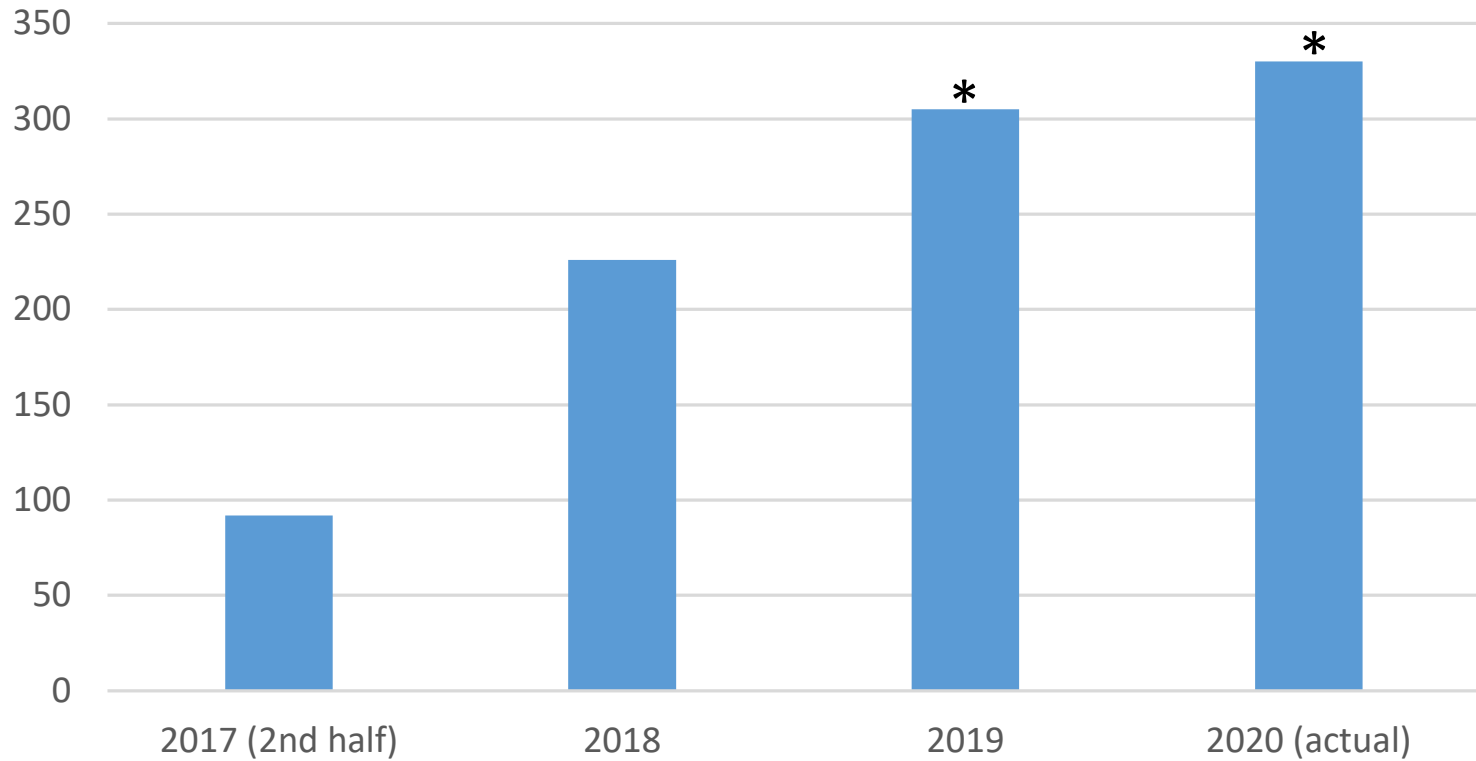
Jeffrey D. Spitler

January 11, 2021

Best paper award

- 10/1: Associate Editors requested to nominate best papers.
- 6 nominations received; JDS nominated 4 additional.
- 11/23 Jury formed: Culp, Owen, Bernier, Toftum
- Jury members ranked the papers; an overall ranking was created.
- 12/18 Jury met and reached a decision.
- 12/23 Recommendation sent to Rhiannon Masterson

Submissions



* 2019 forward are from ScholarOne; 2017 & 2018 come from T&F.

2020

- 330 submissions
- JDS rejected 106 papers
 - Common reasons:
 - Out of scope
 - Case studies
- 108 rejections by recommendation of Associate Editors.
- 105 papers published
- 8 Editorials published

2020 Special Issues

- ASIM 2018
- Flammable Refrigerant Safety
- IAQVEC 2019

2020 Editorial Board Meetings

- First online meetings in July.
- Two meetings to accommodate both hemispheres.
- First meetings with > 90% participation.
- Accomplishments:
 - Two editorials.
 - Reviewer Board launched.
 - Special issues started.

2020 Editorials

- JDS:
 - Introduction & thankyou to Reinhard
 - Reviewing for STBE
 - Addressing the Building Energy Gap with Measurements
- Toward a user-centered built environment (Agee, O'Brien, Day, Brackley)
- Integrating IAQ control strategies to reduce the risk of asymptomatic SARS CoV-2 infections in classrooms and open plan offices (Zhang)
6657 views; 3 references, Altmetric score 200

Misconduct allegation (2)

- Complaint that paper published in a special issue had largely redone the same work as previously reported in an STBE paper.
- Mostly correct.
- Mitigating factor: Authors of paper 2 recommended an author of paper 1 as a reviewer.
- Paper 2 did have some new (different) work; opinion of significance varies.
- Paper 2 received reasonably thorough reviews, though no one flagged the similarities.
- Resolution: Paper 2 was revised to show relationship to Paper 1 more clearly.
- Authors of Paper 1 were satisfied with the outcome.
- Thanks to Alexa and Jørn Toftum

Associate Editors

- Two Associate Editors with terms expiring this year +1 who might prefer to be replaced:
 - Richard De Dear (I will ask to stay on)
 - Chandra Sekhar (I will check to see if he wishes to stay on.)
 - Roberto Lamberts (Stayed on as a favor, but I think would prefer to be replaced.)

Reviewer Board

- Concept:
 - Recruit members from junior and mid-level faculty, recent PhD graduates.
 - Commitment to review ~4 papers per year in a timely fashion (2 weeks or less).
- Current status:
 - Invited 53 members
 - 38 accepted preliminary invitation
 - These 38 are now on masthead and AEs have details.
 - 9 additional members have just been added.

Reviewer Board

Name	Affiliation		Name	Affiliation
Ahmad Abbas	GIK Institute of Engineering Sciences and Technology, Topi, KPK, Pakistan		Akram Abdul Hamid	Division of Building Physics, Lund University, Lund, Sweden
Philip R. Agee, Ph.D	Virginia Tech, Blacksburg, VA, USA		Maomao Hu	Department of Engineering Science, University of Oxford, Oxford, UK
Maria Alberdi-Pagola	CP Test A/S		Ongun Berk Kazanci	International Centre for Indoor Environment and Energy, Department of Civil Engineering, Technical University of Denmark, Kgs. Lyngby, Denmark
Vikrant C. Aute	University of Maryland, College Park, Maryland, USA		Jae-Weon Jeong	Professor of Department of Architectural Engineering, Hanyang University, Seoul, South Korea
Christian K. Bach	Oklahoma State University, Stillwater, Oklahoma, USA		Michael G. Kent	Berkeley Education Alliance for Research in Singapore, Singapore
Cao Bin	Tsinghua University, Beijing, China		Meng Kong	Syracuse University, Syracuse, NY, USA
Mariya P. Bivolarova	Technical University of Denmark, Kgs. Lyngby, Denmark		Hoseong Lee	Korea University, Seoul, Korea
Craig R. Bradshaw	Oklahoma State University, Stillwater, Oklahoma, USA		Hangxin Li	The Hong Kong Polytechnic University, Kowloon, Hong Kong SAR
Jayson Bursill	Carleton University, Ottawa, Ontario, Canada		Fang Liu	Shandong Jianzhu University, Jinan, Shangdong, China
Jie Cai	University of Oklahoma, Norman, Oklahoma, USA		Xiaobing Liu	Oak Ridge National Laboratory, Oak Ridge, TN, USA
Shanshan Cai	Huazhong University of Science and Technology, Wuhan, Hubei, China		Matt S. Mitchell	National Renewable Energy Laboratory, Golden, CO
Yimin Chen	Lawrence Berkeley National Laboratory, Berkeley, CA, USA		Mohamed Ouf	Concordia University, Montreal, Quebec, Canada
Massimo Cimmino	Polytechnique Montréal, Montréal, QC, Canada		Jingjing Pei	Tianjin University, Tianjin, China
Moshood O. Fadeyi	Singapore Institute of Technology, Singapore		Long T. Phan	Florida International University, Miami, Florida, USA
Cheng FAN	College of Civil and Transportation Engineering, Shenzhen University, China		Mohammad Reza Safaei	Civil and Environmental Engineering Department, Florida International University, Miami, FL, USA
Jamie P. Fine	University of Toronto, Toronto, Ontario, Canada		Omer Sarfraz	Johnson Controls, York, Pa, USA
Victor Fransson	Division of Building Services, Department of Building- and Environmental Technology, Faculty of Engineering, Lund University, Sweden		Jialei Shen	Syracuse University, Syracuse, NY, USA
Brian M. Fronk	Oregon State University, Corvallis, Oregon, USA		Andrew Sommers, PhD, Assoc	Department of Mechanical and Manufacturing Engineering, Miami University, Oxford, Ohio, USA
Yangyang Fu	Texas A&M University, College Station, Texas, USA		Rui Tang	Lawrence Berkeley National Laboratory, Berkeley, CA, USA
Wenjie Gang	Huazhong University of Science and Technology		Despoina Teli	Division of Building Services Engineering, Department of Architecture and Civil Engineering, Chalmers University, Gothenburg, Sweden
Zhi Gao	Ph.D, Associate Professor, School of Architecture and Urban Planning, Nanjing University, Nanjing, China		Marianne F. Touchie	University of Toronto, Toronto, Ontario, Canada
Hua Ge	Concordia University, Montreal, Canada		Adam D. Wills	National Research Council Canada, Ottawa, Ontario, Canada
Sara Gilani	Natural Resources Canada, Ottawa, Ontario, Canada		Dr. Xin Zhang	School of Architecture, Tsinghua University, Beijing, China
Burak Gunay	Carleton University, Ottawa, Ontario, Canada			

Special Issues – 2021 and beyond

- Thermal Science and Technology 2019: 8 papers published (January 2021)
- Clima 2019: 53 invited; 16 submitted; 4 rejected
- Building Simulation 2019: 8 in review; 1 accepted
- BPACS 2020: 15 invited; 1 submitted
- Field-measured Performance of Heating, Cooling and Ventilating Systems. (Last date for submissions 12/1/2021)

It's possible one or two of these will come to fruition in 2021.

General Plans

- Arranging two Editorial Board meetings.
- Pandemic is going to delay or eliminate some opportunities for special issues based on conferences.
 - Will ask the Editorial Board to help identify non-conference-based topical issues.

Needs attention

- Assigning Open Access status



**PEC – Professional Development Subcommittee
Meeting of Friday, January 22, 2021**

In Attendance

Members: Chandra Sekhar, Chair, Larry Fisher, Donald Brandt, Ashley Weekly, Kurt Monteiro, Jeremy Smith, Keith Reihl, James Vallort, Mark Owen

Guests: Karen Murray, Bill Dean, Tim Kline, William Stuart, Eric Yang

Motions

None.

Information Items

Certification Committee Report was given by Ashley Weekly, Chair (*Attachment A*)

1. Certification Committee completed its annual, ANSI required, Management System Review of the effectiveness needed improvements for certification services. All seven ASHRAE certifications are ANSI-accredited.
2. Remote online proctored certification examination launched fall 2020 for a safe, secure and convenience. In December, over 80% of examinees took advantage of this new service.
3. The Certification Study Guide: Certified HVAC Designer (CHD) launched in October 2020 and has sold 113 copies. The guide features a 100-question CHD practice exam and links to other resources in ASHRAE publications and training for additional information.

Mr. Brandt asked if a study guide will be developed for all certification programs and Mr. Owen explained that this was the first and depending on interest and budget more will be developed. Ms. Weekly also stated that with limited funds it was important to evaluate the need for a guide for some certification programs that are not performing as well.

An Action Item was assigned to Mr. Kline to send a copy of the Certified HVAC Designer Study Guide to Mr. Brandt and Mr. Dean. (ACTION ITEM 1)

Mr. Sekhar suggested developing a list of TEC courses that relate to each certification. Mr. Kline informed the subcommittee that currently the certification page lists courses that relate to job task understanding for each certification.

Ms. Weekly stated likewise a communication process should be developed to inform TEC participants of certifications that relate to a course they just completed.

Mr. Sekhar suggested developing a map for all ASHRAE products to include Certification, training and publications. Mr. Smith explained that this would be a very large project and suggested a key word list as an option. Mr. Kline will investigate if ASHRAE has a current key word list or the possibility of developing one. (ACTION ITEM 2)

Mr. Owen reported that a "Pathway Initiative" may be in the works for Mr. Schwedler's presidential year.

4. Certification Digital Badging has been very successful with over 900 badges claimed, over 500 shares to LinkedIn and over 10,000 badge views in all media.
5. In December, the Certification Committee partnered with Region XII to deliver a Live Certification Tech Talk featuring need-to-know information for prospects and employers. Region XII Members will receive a 20% application discount through March 31. Regions interested in Co-Hosting a similar Certification Tech Talk should contact Tim Kline at tkline@ashrae.org for details.

Mr. Kline reported to the subcommittee that presentation was to promote the value of Certification and to explain the process of achieving a certification. Mr. Reihl suggested contacting ASHRAE DRCs as this type of presentation might be valuable at CRC meetings.

Mr. Kline also reported that no one has applied with the offered 20% to date.

6. Through December 31, 2020, there were 330 recertification applications received, versus 279 total in 2019.

Training & Education Committee (TEC) Report was given by Jeremy Smith (*Attachment B*)

7. The committee approved a motion from Members Council "That Society expand the eLearning Corporate training program to be used by ASHRAE chapters beginning January 2021." A program already exists for chapters to purchase eLearning courses at a discounted rate.
8. Comparison of 2020-21 to 2019-20 ALI course registrations is listed on the TEC report.
9. Online ALI HVAC Design training began in December 2020, and Online HVAC Design training presented through the Global Training Center begins in late January 2021. The GTC training is tailored to the Middle East, Northern Africa and parts of Asia. The training costs are lower, and prices are available for developing economies. Procedures are in place to guide registrants to the appropriate training based on their general location.
10. Work to review and revise select Self Directed Learning (SDL) courses continues including the development of slides to accompany courses.

Mr. Owen reported that funding availability is a constraint due, in part, to the loss of income from cancellation of the Winter Conference resulting the freezing of some programs and projects.

Mr. Vallort commented that the process should be standardized like the Standards updating schedule. At the request of Mr. Fisher, the course updating schedule will be included with the subcommittees report to PEC. (ACTION ITEM 3)

11. ASHRAE Learning Institute is working with the Epidemic Task Force to develop and deliver courses focused on the most up-to-date SARS CoV-2 findings. Ms. Murray explained to the subcommittee that new course development has been brisk with interest from NYSERDA and other outside groups.

The following SARS Cov-2 related courses are offered early in the 2021 Online Course Series beginning in late January:

- **NEW!** COVID-19 and Buildings: Re-Occupation After Lockdown
 - **NEW!** Reopening Commercial Buildings: Evaluating Your HVAC Systems' Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Health Impacts of Indoor Air Extraction, Ventilation and Filtration - Same or Different?
 - **Updated!** Hospital HVAC: Infection Mitigation, Comfort, Performance
 - **NEW!** Evaluating Your HVAC System's Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Fundamentals of Ultraviolet Germicidal Irradiation (UVGI) for Air and Surface Disinfection
 - **NEW!** Reopening Universities: Managing HVAC Systems to Mitigate the Spread of SARS-CoV-2 (in the scheduling process)
12. eLearning has seen a substantial increase in subscription revenue and is on track to make the forecast for the 2020-2021 fiscal year. The cumulative subscription revenue for the fiscal year to date is 153.6K on a forecast of 315K (December Financials). Most of this revenue is from individual member and non-member subscriptions, with a few corporate subscriptions.
 13. eLearning is continuing its course updates to meet the demand. Seven courses have been updated with a goal of ten for the 2020-2021 Society Year. The priority is Fundamental Courses, which have proven to be the most popular with corporate customers.

Other Issues Discussed

Mr. Dean discussed with the subcommittee that they prioritize cross committee communication to coordinate product development and efficiency. Additionally, Mr. Dean asked if Certification Committee or TEC had experienced any bottlenecks with other councils or committees they would like to discuss.

Mr. Sekhar asked how TEC courses are chosen for development and Mr. Smith explained that after some interest has been shown then TCs or SSPCs are approached for proposals to develop a course. Mr. Sekhar also suggested more courses be developed for hands-on subjects, such as, equipment or instrument use or data collection, interpretation and analysis for IAQ.

Mr. Stuart suggested a need for better communication and coordination between TEC courses, ASHRAE Conference programs and TCs on subject matter related to each TC.

Respectfully submitted,
Chandra Sekhar, Professional Development Subcommittee Chair
January 21, 2021



**Certification Committee Report
to PEC - Professional Development Subcommittee
Meeting of January 20, 2021**

Motions

None.

Information Items:

1. Management System Review

An ANSI requirement, the Certification Committee completed its annual Management System Review, with resulting decisions and actions related both to the improvement of the effectiveness of the management system and to the improvement of certification services. All seven ASHRAE certifications are ANSI-accredited.

2. New! Exam Delivery Mode: [Remote Online Proctored](#)

Launched in the fall of 2020, remote online proctored certification examination is a safe, secure and convenient delivery mode which brings ASHRAE Certification to ASHRAE Members, wherever they live. In December, over 80% of examinees took advantage of this new service.

3. New! Publication: [Certification Study Guide: Certified HVAC Designer](#) (CHD)

Since its launch in October, through December 15 the Certification Study Guide: Certified HVAC Designer (CHD) (Member Price \$56) had sold 113 copies. Featuring a 100-question CHD practice exam, it is a must-have guide to study of HVAC design resources and key job tasks.

4. Marketing

A. Certification [Digital Badging](#)

Over 900 badges have been claimed, with over 500 shares to LinkedIn and over 10,000 badge views in all media. Rich meta-data and real-time, third-party verification.

Example:



B. NEW! Regions: Co-Host Certification “Tech Talk”

In December, the Certification Committee partnered with Region XII to deliver a Certification Tech Talk featuring need-to-know information for prospects and employers. Region XII Members will receive a 20% application discount through March 31.

Regions interested in Co-Hosting a similar Certification Tech Talk should contact Tim Kline at tkline@ashrae.org for details.

5. **Recertification Application**

Through December 31, 2020, 330 applications received, versus 279 total in 2019. The 2020 recertification class may renew through March 31, 2021.

Respectfully submitted,

Ashley Weekly, Certification Committee Chair
Jan. 21, 2021

Attachment A
 Certification Report to PEC- Professional Development SC

MBO Submission to Planning

Council:

PEC

Committee:

Certification / Chair Ashley Weekly, P.E., BEAP

MBO #	Description	Metric (how do we determine success?)	Initiative # (can be more than 1)	Goal # (can be more than 1)	Completion Date	Financial Assist Req'd?
1	Attain 80% recertification rate for the 2020 renewal class in non-DOE programs, exceeding the industry average of 76%.	If 80% recertification rate is attained.	4	2c	3/31/2021	No
2	Grow the number of certification applications by 10% over the 2019-20 total of 405, to a total of 445 applications.	If the number of certification applications increases 10%	4, 1	3a	6/30/2021	No
3	Achieve 300 sales of CHD Study Guide.	If the sale of 300 CHD Study Guides is achieved	4, 1	3a	6/30/2021	No
4	Achieve 90% digital badge acceptance rate.	If a 90% digital badge acceptance rate is achieved	4	2c	6/30/2021	No
5	Achieve 20% digital badge share to email.	If 20% of digital badges are shared to email	4	2c	6/30/2021	No
6	Monitor consistent recognition of certification designations of ASHRAE certificants after their names in ASHRAE print and electronic media wherever the P.E., P.Eng. and Ph.D. designations also appear.	If certification designations consistently are recognized in ASHRAE print and electronic media	4, 3	2a	6/30/2021	No
7	Manage certification programs against the ANSI/ISO/IEC 17024 accreditation standard.	If ASHRAE retains ANSI accreditation of its programs	4	2b	6/30/2021	No



**Training & Education Committee
Report to Professional Development Subcommittee,
Publishing and Education Council (PEC)**

ASHRAE 2021 Winter Conference – Virtual

Recommendations for Board Approval

None

Information Items

1. The committee approved a motion from Members Council “That Society expand the eLearning Corporate training program to be used by ASHRAE chapters beginning January 2021.” A program already exists for chapters to purchase eLearning courses at a discounted rate.
2. Comparison of 2020-21 to 2019-20 ALI course registrations:

Year (Conference Locations)	Winter	Annual	Online	In-Company	Chapter	Industry	HVAC I	HVAC II	GTC	TOTAL*
2020-2021 (Virtual/Phoenix) To date Jan2021	Virtual		395**	891	300	1,008	123	30	1,488	4,235
2019-20 (Orlando/Virtual)	1,138	Virtual	752***	665	200	42	312	250	597	3,956

*Total does not include eLearning or SDL registrants.

** An additional 2,584 individuals registered for free online webinars.

*** An additional 6,909 individuals registered for free online webinars.

3. Online ALI HVAC Design training began in December 2020, and Online HVAC Design training presented through the Global Training Center begins in late January 2021. Though the credit hours for the trainings are the same, the participant prices differ based on the local economy. The GTC training is tailored to the Middle East, Northern Africa and parts of Asia. The training costs are lower, and prices are available for developing economies. Procedures are in place to guide registrants to the appropriate training based on their general location.
4. Work to review and revise select Self Directed Learning (SDL) courses continues. Funding availability is a constraint.
5. ASHRAE Learning Institute is working with the Epidemic Task Force to develop and deliver courses focused on the most up-to-date CoV-2 findings. The following Cov-2 related courses are offered early in the 2021 Online Course Series beginning in late January:
 - **NEW!** COVID-19 and Buildings: Re-Occupation After Lockdown
 - **NEW!** Reopening Commercial Buildings: Evaluating Your HVAC Systems' Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Health Impacts of Indoor Air Extraction, Ventilation and Filtration - Same or Different?

- **Updated!** Hospital HVAC: Infection Mitigation, Comfort, Performance
 - **NEW!** Evaluating Your HVAC System's Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Fundamentals of Ultraviolet Germicidal Irradiation (UVGI) for Air and Surface Disinfection
 - **NEW!** Reopening Universities: Managing HVAC Systems to Mitigate the Spread of SARS-CoV-2 (in the scheduling process)
6. eLearning has seen a substantial increase in subscription revenue and is on track to make the forecast for the 2020-2021 fiscal year. The cumulative subscription revenue for the fiscal year to date is 153.6K on a forecast of 315K (December Financials). Most of this revenue is from individual member and non-member subscriptions, with a few corporate subscriptions.
 7. eLearning is continuing its course updates to meet the demand of interactive learning experience in the marketplace. The priority is Fundamental Courses, which have proven to be the most popular with corporate customers. For the Society Year 2020-2021, the goal is to update a total of 10 courses. So far, 7 courses have been updated.
 8. Professional Development Committee 2020-2021 MBOs are included as Attachment A.

Respectfully submitted,
Jeremy Smith, Training & Education Committee Chair
January 21, 2021

Training & Education Committee
MBOs for Society Year 2020-21
Chair: Jeremy Smith Date: December 1, 2020

Objective	SP	Complete by	Fiscal Impact	Responsible Party	Comment/ Status
1. Review new strategic plan for items that apply to TEC and develop a plan to implement 2 ideas from the review. Implement 1 idea in the fall and 1 in the spring.			None	Planning Subcommittee	Review started
2. Develop topics and RFPs for an additional (3) practical applications courses			None	Planning Subcommittee	In progress
3. Review SDLs and issue RFPs for the ones that need updating on prescribed schedule			None	Operations Subcommittee	36 mos. post issuance
4. Review existing courses and sunset those that have not been used in 5 years or recommend updates			None	Operations Subcommittee	Continuous
5. Every course reviewed by TEC Liaison prior to presentation– Quality check			None	Operations Subcommittee	Continuous – 1-2 months prior to meetings
6. Develop marketing plan for TEC courses/branding. Work with ASHRAE marketing to understand and improve			TBD	Planning Subcommittee	Continuous – 1 conf. call early fall and 1 conf. call early spring
7. Develop Financial Model for course evaluation				Operations Subcommittee	Draft by Nov 30 Final by April 30
Additional Recommendations for Strategic Planning: Not at this time					



PEC - Planning Subcommittee Report

Meeting of January 28, 2021

In Attendance

Members: Katherine Hammack; Chair, Spencer Morasch, Ashley Weekly, Michael Patton, Jeremy Smith, Hugh McMillan, Don Brandt, Cameron Labunski, Cynthia Callaway, Larry Fisher, Randy Schrecengost, Mark Owen

Guests: Ahmed Alaa Eldin Mohamed, Bill Dean, Kimberly Gates, Karen Murray, David Soltis, Eunice Njeru, Tim Kline

Motions

None.

Information Items

1. Ms. Hammack gave a brief presentation to the subcommittee shown in *Attachment A to the Planning Subcommittee Report to PEC* to review the new PEC structure and a list of the subcommittee's responsibilities:
 - Set Strategic Direction
 - Develop MBO's
 - Prioritize Resource Allocations
 - Ensure PEC Alignment with Society Strategic Plan
 - Identify future PEC Leadership
 - Maintain MOP and ROB of PEC
 - Assist with PEC Committees MOPs and ROBs
 - Act as a resource for PEC rule interpretation
 - Assist with Motions
 - Review MBO Progress
 - Recommend Action when goals are not met
 - Evaluate and Document progress toward Society Strategic Planning Goals
2. Ms. Hammack reported that for the 2020-2021 Society year the standing committees have already produced their MBOs but that this may be an important activity of the Planning Subcommittee.

Work will ramp up when the PEC standing committees start their winter meetings and begin funneling issues up to the Planning Subcommittee. All of the committees chairs share their MBO's with the Society Planning Committee and that information should be part of the activities that the PEC Planning Subcommittee coordinates and monitors for the council.

3. Mr. Schrecengost gave a brief summary of the Products Subcommittee report. *(Attachment B to the Planning Subcommittee Report to PEC)*
4. Ms. Weekly reviewed the Certification Committee's items on the Professional Development Subcommittee report. *(Attachment C to the Planning Subcommittee Report to PEC)*
5. Mr. Smith gave a summary of the TEC's items on the Professional Development Subcommittee report, as well as, additional items discussed at the Professional Development Subcommittee meeting.
6. In Mr. Smith report TEC's reported on a plan to review and revise select Self Directed Learning (SDL) courses continues including the development of slides to accompany courses. Mr. Fisher asked how decisions were made for reviewing and updating courses. Mr. Smith explained that although details for an updating schedule has yet to be finalized, some basic courses simply need slides or new slides as the content has not changed over time, such as, the load calculations course.
7. Mr. Fisher commented that Government Affairs Committee has been producing the Public Policy Information Bulletin (PPIB) and asked the subcommittee if this was an official ASHRAE Publication and if so should PEC have oversight of it. Ms. Hammack explained the PPIB gave a summary of the ASHRAE publications for government officials and a summary of government activities for ASHRAE members. Mr. Brandt reported that the PPIB was produced by the Alice Yates at the ASHRAE Washing Office and reviewed by Technology Council and ASHRAE staff. After discussion, the subcommittee concluded that the PPIB is a newsletter and does not require any further review by the PEC.
8. The subcommittee discussed the Global Training Center Ad Hoc Committee (GTC) and to what group it would be reporting to within the new PEC structure. Since it is an Ad Hoc it will report this year directly to the PEC. After some discussion, Ms. Hammack assigned a small subcommittee an action item to review the reporting structure and report back to the subcommittee if the GTC should report to TEC, the Professional Development Subcommittee or continue reporting to the PEC. (ACTION ITEM 1)

(Subcommittee members: Don Brandt, PEC Vice; Ahmed Alaa Eldin Mohamed, GTC Chair; Jeremy Smith, TEC Chair)

Respectfully submitted,

Katherine Hammack, Planning Subcommittee Chair
January 28, 2021

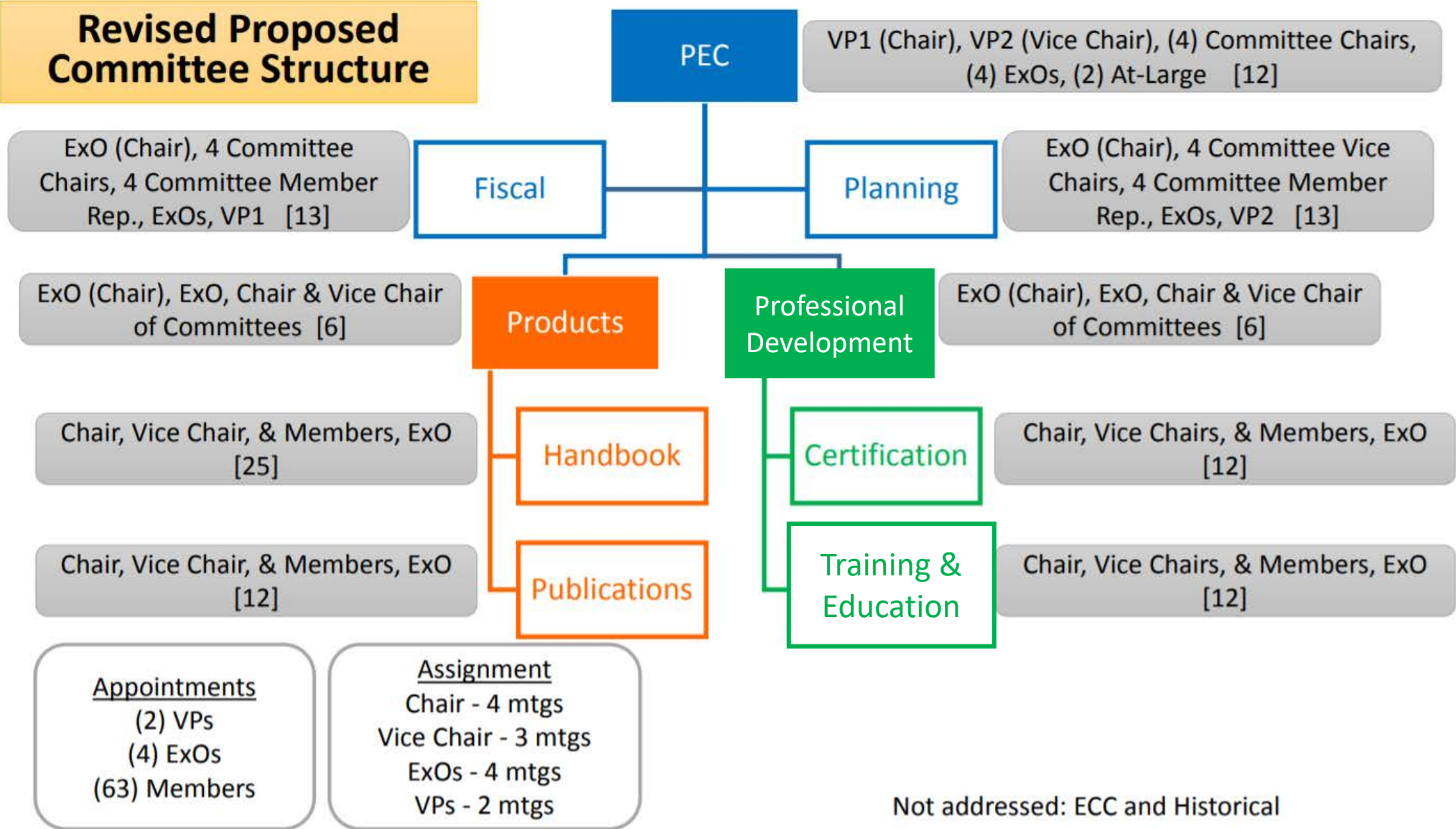
Action Items List
PEC – Planning Subcommittee
Meeting of January 28, 2021

#	Responsibility	Action Item
1	Don Brandt, PEC Vice Chair; Dr. Alaa Eldin, GTC Chair; Jeremy Smith, TEC Chair	Review the reporting structure and report back to Planning Subcommittee if the GTC should report to TEC, the Professional Development Subcommittee or continue reporting to the PEC.

Planning Subcommittee

To the Pub Ed Council

In the New Committee Structure there is now a “Planning” Subcommittee



Three former committees have been merged into one committee: Progress Evaluation and Manual & Procedures are now all in the Planning Committee



The role of the Planning Committee is defined as follows:

PEC (Monitor and Planning)

Planning

- Set strategic direction
- Develop MBOs
- Prioritize resource allocations
- Ensure alignment with Society Strategic Plan
- Identify future PEC leadership
- Maintain MOP & ROB of PEC
- Assist with committees' MOP & ROB
- Act as a resource for rule interpretation
- Assist w/ motions
- Review MBO progress
- Recommend action when goals are not met
- Evaluate & document progress toward Society Strategic Planning goals

Fiscal

- Manage budget
 - Monitor Revenue and Expenses
 - Review for potential efficiencies
- Provide data to help drive decisions
- Advertising
 - Recognize advertising opportunities
 - Evaluate advertising and sales yield and potential
 - Job board
 - Supplier Directory
 - Supplier Webinars

Architectural blueprints are shown on the left side of the slide. They are rolled-up sheets of paper with technical drawings and dimensions. The drawings include various lines, circles, and numbers, representing a structural plan. The blueprints are arranged in a way that shows multiple sheets, with some parts unrolled to reveal the details of the design. The overall tone is professional and technical.

Starting Now!

- It is now time for us to implement this new structure
- The new PEC restructure plan was intended to be implemented July 1, 2020

Our Responsibilities

Per July 1 2020 approved MOP

- 4.2. Planning Subcommittee
 - 4.2.1. The subcommittee consists of
 - One VP member designated as subcommittee chair by the PEC chair, Five committee Vice Chairs, five committee members from the standing committees, one Vice President, three past committee members, and two ExOs.
 - 4.2.2. The subcommittee shall set strategic direction, develop MBOs, prioritize resource allocations, ensure alignment with Society Strategic Plan, identify future PEC leadership, maintain MOP and ROB of PEC, assist with committees' MOP and ROB, act as a resource for rule interpretation, assist with motions, review MBO progress, recommend action when goals are not met, and evaluate and document progress toward Society Strategic Planning goals.
 - 4.2.3. The subcommittee shall review the status of all strategic plan objectives assigned to PEC and recommend action.
- The Products Subcommittee, Professional Development Subcommittee, Planning Subcommittee and Fiscal Subcommittee shall hold meetings outside of the regular PEC meetings. Subcommittee reports shall be provided to PEC in writing prior to its meeting. The report must include all principle motions as well as summary information regarding the actions of the subcommittee and supporting information.
- Minutes of the Fiscal and Planning Subcommittees shall be distributed to all members of PEC

Items Outstanding?

1. PEC MBO #4 - Analyze performance of special publications over the past three years and develop criteria for evaluating and approving special publication requests on a business case basis aligned with strategic plan initiative 3.
 - Functional Planning Subcommittee has created a drafted an evaluation form and will have a conference call before the Austin meeting to finalize their recommendations to PEC. (2020-feb-04-pec-min-orlando-.pdf)
2. ???
3. ???

Our Charter

1. Set Strategic Direction
2. Develop MBO's
3. Prioritize Resource Allocations
4. Ensure Alignment with Society Strategic Plan
5. Identify future PEC Leadership
6. Maintain MOP and ROB of PEC
7. Assist with Committees MOPs and ROBs
8. Act as a resource for rule interpretation
9. Assist with Motions
10. Review MBO Progress
11. Recommend Action when goals are not met
12. Evaluate and Document progress toward Society Strategic Planning Goals





**PEC - Products Subcommittee Report
to PEC - Fiscal Subcommittee
Meeting of Thursday, January 21, 2021**

In Attendance

Members: Randy Schrecengost; Products Subcommittee Chair, Cynthia Callaway, Mark Fly, Michael Patton, Hugh McMillan, Adeeba Mehboob, Dean Borges, Spencer Morasch, Ahmed Alaa Eldin Mohamed Kelley Cramm, Mark Owen

Guests: Bill Dean; PEC Chair, Cindy Michaels, Kimberly Gates, David Soltis, Heather Kennedy

Motions

None.

Information Items

Handbook Committee (HBC) Report was given by Mr. Patton. *(Attachment A)*

1. An Ad-hoc was appointed to investigate reorganizing the chapters in the volume to balance out the page counts.
2. Anthony Young gave a presentation from TC 9.8 on a new chapter proposal for Airport Terminals. The committee will review and reply within a month.
3. HBC discussed ideas to encourage HB Online updates included obtaining funds for gift cards to primary authors.

Historical Committee Report was given by Mr. Borges. *(Attachment B)*

4. Historical Committee heard an update on the progress of all projects for 125th anniversary. All projects have been completed with one cancelled due to the cancellation of the in-person conference.
5. Historical Committee have chosen Shelia Hayter and Barney Burroughs for the next two Leadership Voices interviews to be filmed at the next in-person meeting.
6. Historical Committee reviewed a report on the status of PAOE points. *(Attachment A of the Historical Committee Report)*
7. Historical Committee members Glenn Remington and Bern Nagengast were assigned to work reinstituting the Historians Newsletter.

8. Historical Committee discussed communicating with a professional archivist to help organize what ASHRAE material should be archived and the idea of a “Finding Aid System” to assist user of an ASHRAE Archive.
9. Historical Committee suggested that Basecamp be investigated as a potential storage solution for electronic documents and files with the possibility of a template or structure being created for that specific use.
10. Historical Committee reviewed their MBOs for updates shown in *Attachment B of the Historical Committee Report*.

Publications Committee Report was given by Mr. McMillan. (*Attachment C*)

11. Publications Committee members voted to select the winner for the 2020 Journal Paper Award, the title and authors of which Sarah Foster has forwarded to the Honors and Awards Committee for award presentation at the 2021 ASHRAE Annual Conference.
12. Updates on the Publications Committee MBOs for the 2020-2021 Society year are included in *Attachment A of the Publications Communications Report*.
13. A Publications Committee subcommittee drafted survey questions regarding Presidential Member Tim Wentz’s idea for a series of Application Guides, and a survey was sent to all ASHRAE members in December 2020. Results of the survey are detailed in *Attachment B of the Publications Communications Report* and the detailed results are located on Basecamp. Mr. McMillan encouraged everyone to review the survey questions and take the survey. Ms. Mehboob mentioned that some survey respondents suggested that Apps and videos be developed to work with the Application Guides.

Research Journal Subcommittee Report was given by Ms. Cramm. (*Attachment D*)

14. Ms. Cramm briefly explained the main difference between *STBE* and the ASHRAE Journal was that papers that were too long and or technical for the ASHRAE Journal or ASHRAE Transactions needed a publication home so *Science and Technology for the Built Environment (STBE)* as created. Mr. Owen has an action item to develop some additional promotion of *STBE* which could include a reminder that ASHRAE Members have free access to *STBE* papers through the ASHRAE website.
15. The Taylor & Francis Publisher’s Report shown in *Attachment A of the Research Journal Subcommittee Report* included the following items:
 - STBE published 129 articles in 2019, 10 of which were Open Access.
 - There were 49,095 STBE article downloads in 2020 YTD; 65% higher than 2019 YTD.
 - The 2019 Impact Factor is 1.356, ranking 42/63 in the Construction & Building Technology JCR category.
 - The journal’s 2019 CiteScore is 2.6, ranking 32/83 in the Fluid Flow and Transfer Processes Scopus category.
16. Mr. Owen points out that the improvement of the Impact Factor of *STBE* has been a long-term effort by the editor and the publisher and represents an accomplishment worth highlighting.

17. Dr. Spitler gave the Editor's Report shown in *Attachment B of the Research Journal Subcommittee Report STBE* received 330 submissions in the last year, publishing 105 papers and 8 editorials. Ms. Cramm also noted for the subcommittee that the most common reasons for rejection of a paper were that it was either out of scope or that it needed more case studies cited.

Other Issues Discussed

18. Mr. Dean asked the Products Subcommittee to consider helping Publishing and Education products get to market a priority by helping to remove any bottlenecks and by improving communications between ASHRAE groups. The subcommittee discussed a few examples of this issue.

Mr. Borges, Historical Committee Chair, mentioned that ASHRAE videographer on staff has left ASHRAE and there is no plan to replace her.

Mr. McMillan, Publications Committee Chair, discussed the need to update, the very popular HVAC Simplified, which is being used as a textbook but references out of date ASHRAE Standards. The cognizant Technical Committee was TC7.1 but has been moved to TC 9.1 which has not responded to the Publications Committee. Publications Committee has informed the TAC Chair. Ms. Cramm is a member of TC 9.1 and assured Mr. McMillan that HVAC Simplified is on their agenda but they need to discuss the possible need for an academic to participate in an update of a textbook.

19. Mr. Dean also wanted the Products Subcommittee to facilitate any issues with communication between groups. The subcommittee discussed a few examples of this issue.

Mr. McMillan reported that Publications Committee usually communicates directly with TCs on any needs, issues or concerns.

Mr. Borges stated he would like a more formal process for Historical Committee to communicate with Regional and Chapter Historians involved in history at the Society level. Ms. Calloway suggested asking the staff liaison for the Communications Committee, Joslyn Radcliff, for assistance in setting up mail groups with ASHRAE email aliases and Basecamp as a straightforward and simplified way of communicating.

Mr. Morasch informed the subcommittee that he is a member of the Streamline Committee and they are tasked with assisting communication between ASHRAE groups. Anyone can email him directly with their issues or concerns and he will take them directly to that committee.

Respectfully submitted,

Randy Schrecengost, PEC – Products Subcommittee Chair
January 21, 2021



Handbook Committee Report To PEC - Products Subcommittee

Motions

None.

Information Items

1. Subcommittees
 - a. Review/Training (Furman) reported about the online TC training which was well attended
 - b. Electronic (Fisher) report highlighted the Basecamp opportunity and demonstrated and reviewed the file structure to date
 - c. Functional (Sheinman) reported that the ARG, ROB and MOP are up to date and have received all approvals.
 - d. The absence of Abushakra prevented a Strategic Planning report
2. Volume reports
 - a. No issues were highlighted in any of the volume reports.
 - b. Fisher (2022 Refrigeration) indicated that progress on the volume has not been impacted by Covid-19 due to the stability of the content
 - c. Heather indicated that 2021 (Fundamentals) galleys are in progress but some are delayed due to late submissions and Staff reductions.
3. General
 - a. Discussion was held about reorganizing the chapters in the volume to balance out the page counts. (Action Item 1) **Patton to appoint an Ad-hoc to solidify ideas.**
 - b. Presentation by Anthony Young from TC 9.8 on a new chapter proposal for Airport Terminals. The committee will review and reply within a month. (Action Item 2) **Patton/Kennedy to set full committee meeting to discuss and vote.**
 - c. Ideas for encouraging HB Online updates included obtaining funds for gift cards to primary authors. (Action Item 3) **Kennedy to investigate obtaining funds or budget.**
 - d. Patton suggested adding a 2 times per year virtual meeting spaced before and after the Winter Meeting to coordinate volume activities. The MOP will be updated as required to add this additional meeting requirement. (Action Item 4) **Patton/Sheinman to review MOP for new 2.4.3.(d) adding this to Volume Chairs responsibilities.**
4. MBOs were reviewed and updated and shown in *Attachment A*.

Respectfully submitted,
Michael P. Patton, Handbook Committee Chair
January 21, 2021

Attachment A
Handbook Committee Report to PEC - Products Subcommittee

MBO Submission to Planning

Council:

PEC
Handbook Submitted by

Committee:

M Patton HBC Chair

MBO #	Description	Metric	Initiative #	Goal #	Completion Date	Financial Assist Req'd?
		(how do we determine success?)	(can be more than 1)	(can be more than 1)		
1	Solicit ideas for PEC MBO 1&2	Included in HBC Report to PEC	1&2	1	Jan 1 2021	PEC to Evaluate
2	Address Volume imbalances, Fundamentals and Applications getting large and shipping costs increasing			2	June 30 2021	No
3	Develop a TC reward recognition system for HB Online content	Increase interim cycle revisions		3	June 30 2021	Yes
4	Solve Author Portal browser problem as this is hampering adoption of the tool	COMPLETE		1a	Sep-20	Complete
5	Work with TAC to promote HB activities at the TC Chairs general meeting Either Virtual or when Conferences resume	Getting on the TAC agenda		1b	Jan 1 2021	No
6	Require Vol Chairs to hold virtual Liason meetings to discuss volume progress at least 2x per yr. outside conference meetings.	Vol Chair Reports		1b	Jan 1 2021	Assistance from staff may be required
7	Work with TAC to monitor TC restructuring (if any) as it occurs. Any TC reorg greatly impacts HBC and Liaison assignments	Ongoing		3a	June 30 2021	No
8 (NEW)	Review ARG for clarity on material to be included in the HB volumes vs that set for other publications (deign Guides, Users manuals)	Revisions to ARG		2	June 30 2021	No



Historical Committee
Report to PEC - Products Subcommittee
Meeting of January 15, 2021

Action Items

1. None.

Information Items

1. Historical Committee heard an update on the progress of all projects for 125th anniversary. All projects have been completed with one cancelled due to the cancellation of the in-person conference.
2. Historical Committee discussed the pilot plaque project which will be installed in Orange, Texas.
3. Historical Committee have chosen Shelia Hayter and Barney Buroughs for the next two Leadership Voices interviews to be filmed at the next in-person meeting.
4. Historical Committee discussed the necessity of continuity of communication, to keep Regional and Chapter Historians involved in history at the Society level.
5. Historical Committee reviewed a report on the status of PAOE points. (*Attachment A*)
6. Historical Committee discussed reinstituting the Historians Newsletter. Glenn Remington and Bern Nagengast were assigned to work on this and report to the committee at their next meeting.
7. Historical Committee discussed communicating with a professional archivist to help organize what ASHRAE material should be archived and the idea of a "Finding Aid System" to assist user of an ASHRAE Archive.
8. Historical Committee suggested that Basecamp be investigated as a potential storage solution for electronic documents and files with the possibility of a template or structure being created for that specific use.
9. Historical Committee reviewed their MBOs for updates shown in *Attachment B*

Respectfully submitted,
Dean Borges, Historical Committee Chair

HISTORY CHAIR PAOE SUMMARY REPORT

Winter VIRTUAL MEETING 2020-2021

Regions	Total History PAOE	Chapters @ "0" PAOE	Chapters @ MIN	Chapters @ PAR
I	2795	2	13	0
II	2025	2	7	5
III	250	9	2	0
IV	200	6	1	0
V	300	11	1	1
VI	50	9	0	0
VII	3250	5	8	4
VIII	2850	4	10	5
IX	1525	7	6	1
X	3100	0	14	0
XI	300	10	1	1
XII	1075	11	4	2
XIII	1750	0	10	1
XIV	0	9	0	0
Region- At-Large	12725	1	30	18

Grand Total 32195

Top 10 in PAOE for History	Region	PAOE Pts
1	RAL	12725
2	7	3250
3	10	3100
4	8	2850
5	1	2795
6	2	2025
7	13	1750
8	9	1525
9	12	1075
10	5	300

Top 10 CHAPTERS	Top 10 History PAOE
LOUISVILLE	1400
TURKISH	1375
BAHRAIN	1250
ASHRAE BANGALORE	1200
NORTHERN NEVADA	950
QATAR ORYX	850
ASHRAE MUMBAI	650
AUSTIN	625
ASHRAE DECCAN	550
INDIA	550

1. Each Regional Historian to reach out to Chapter Historians/Presidents with ZERO PAOE History points and help them get to Minimum PAOE of 100.
2. Each Regional Historian to reach out to Chapter Historians/Presidents with less than 300 PAR PAOE points and encourage them to get PAR.

REGION I

2020-2021 Presidential Award of Excellence

***Minimum and PAR points indicated are for 2020-2021**

[illegible]

REGION II

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE pointTotals
13	QUEBEC	163	0	500	400	0	0	700	0	100	850	2550
14	MONTREAL	534	300	700	1350	0	100	650	650	450	975	5175
15	OTTAWA VALLEY	411	250	395	800	0	100	60	1100	0	950	3655
16	TORONTO	1079	275	835	1250	0	550	70	0	300	1625	4905
37	HAMILTON	281	300	825	450	0	830	1440	2300	0	1225	7370
100	HALIFAX	193	0	435	150	0	250	10	0	0	850	1695
116	LONDON (CANADA)	127	300	250	300	0	645	0	0	0	850	2345
117	NB/PEI	150	300	300	200	0	540	0	0	0	500	1840
141	WINDSOR	63	300	600	200	0	430	1275	300	750	850	4705

Total PAOE 2025
Avg PAOE 225

2020-2021 Presidential Award of Excellence

[illegible]

REGION IV

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE pointTotals
29	NORTH PIEDMONT	189	0	25	400	0	200	170	300	0	825	1920
30	SOUTHERN PIEDMONT	371	0	275	50	0	0	80	0	0	1075	1480
31	SOUTH CAROLINA	141	0	150	50	0	0	0	200	0	675	1075
32	ATLANTA	988	200	450	350	0	710	635	400	350	1225	4320
97	GREENVILLE	187	0	125	100	0	0	20	0	0	300	545
106	TRIANGLE	472	0	690	2295	0	130	60	400	0	1425	5000
113	CHARLESTON	144	0	175	0	0	0	130	0	0	900	1205

Total PAOE 200

Avg PAOE 29

REGION V

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

[illegible]

2020-2021 Presidential Award of Excellence

***Minimum and PAR points indicated are for 2020-2021**

Total PAOE	50
Avg. PAOE	5

REGION VII

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communication s: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
55	LOUISVILLE	191	1400	225	50	0	100	675	2650	50	725	5875
56	MEMPHIS	169	200	125	70	0	0	170	200	0	850	1615
57	BIRMINGHAM	249	0	375	225	0	630	1515	1400	0	950	5095
58	MOBILE	47	0	0	0	0	0	160	0	0	750	910
59	NEW ORLEANS	121	350	125	0	0	640	620	550	50	700	3035
60	BATON ROUGE	91	100	25	0	0	0	200	300	0	550	1175
61	MISSISSIPPI	89	250	10	0	0	0	100	400	0	575	1335
88	NASHVILLE	317	300	350	0	0	810	560	200	0	675	2895
99	EAST TENNESSEE	219	0	100	200	0	100	310	100	0	700	1510
114	TENNESSEE VALLEY	86	0	25	50	0	250	160	700	0	450	1635
128	BLUEGRASS	111	250	25	50	0	400	300	200	0	750	1975
130	NORTHWEST FLORIDA	58	0	25	0	0	0	150	0	0	100	275
133	NORTH ALABAMA	60	100	100	0	0	250	100	0	0	100	650
192	WEST VIRGINIA	79	300	650	725	0	590	850	400	800	1000	5315

Total PAOE 3250

Avg. PAOE 232

REGION VIII

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
62	ARKANSAS	234	300	230	600	0	945	2720	3039	50	975	8859
64	HOUSTON	729	350	310	1516	0	400	1265	400	500	825	5566
65	ALAMO	231	100	25	300	0	0	10	400	0	775	1610
66	AUSTIN	367	625	210	525	0	0	315	0	0	1100	2775
67	DALLAS	724	100	500	519	0	406	980	650	0	1000	4155
68	CENTRAL OKLAHOMA	279	475	405	845	0	200	1840	700	300	950	5715
69	NORTHEASTERN OKLAHOMA	188	100	185	200	0	620	70	1200	0	600	2975
70	FORT WORTH	296	375	175	450	0	0	80	820	100	900	2900
71	WEST TEXAS	80	0	100	100	0	0	0	0	0	450	650
91	EAST TEXAS	115	100	300	100	0	0	85	0	0	750	1335
154	SOUTH TEXAS	60	0	0	325	0	0	60	0	0	275	660
165	MEXICO CITY	102	0	250	395	0	160	310	200	700	475	2490
166	MONTERREY	130	225	455	325	0	0	0	400	0	825	2230
173	GUADALAJARA	26	0	0	0	0	0	50	0	0	0	50
208	NORTHWEST ARKANSAS	129	100	125	420	0	100	250	200	50	800	2045

PAOE Total 2850
Avg. PAOE 190

2020-2021 Presidential Award of Excellence

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
53	KANSAS CITY	628	250	310	600	0	0	685	1000	600	925	4370
72	EL PASO	51	0	150	0	0	0	10	0	0	50	210
73	ROCKY MOUNTAIN	942	0	585	450	0	0	360	0	350	1025	2770
74	UTAH	318	200	200	50	0	0	2240	300	350	1275	4615
75	NEBRASKA	376	225	250	525	0	710	2765	1600	400	1250	7725
76	WICHITA	134	0	50	100	0	150	0	0	0	600	900
77	NEW MEXICO	156	200	175	0	0	0	30	0	350	500	1255
93	SOUTH DAKOTA	126	450	350	100	0	0	520	0	350	400	2170
127	BLACK HILLS	48	0	50	50	0	0	0	0	0	100	200
131	BIG SKY	121	200	75	150	0	250	160	450	0	650	1935
135	IDAHO	166	0	110	50	0	0	10	0	350	550	1070
148	PIKES PEAK	117	0	185	0	0	0	435	0	350	800	1770
150	OZARKS	75	0	80	0	0	0	0	0	250	350	680

Total PAOE	1525
Avg. PAOE	117

REGION X

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
81	SACRAMENTO VALLEY	282	150	75	200	0	50	40	500	0	1025	2040
82	GOLDEN GATE	866	150	310	350	0	200	560	450	600	1025	3645
83	SAN JOAQUIN	115	150	25	150	0	0	70	0	100	550	1045
84	SOUTHERN CALIFORNIA	664	150	385	450	0	0	160	500	100	1025	2770
85	SAN DIEGO	356	150	260	250	0	150	160	1200	200	925	3295
86	CENTRAL ARIZONA	439	150	310	480	0	0	50	200	100	1625	2915
87	TUCSON	94	250	25	300	0	0	150	500	100	700	2025
92	SOUTHERN NEVADA	144	150	225	772	0	600	720	0	300	725	3492
101	SAN JOSE	322	250	345	550	0	100	425	950	100	1375	4095
105	ORANGE EMPIRE	392	150	300	300	0	0	50	200	0	1175	2175
108	HAWAII	251	150	510	150	0	70	870	1550	100	900	4300
126	NORTHERN NEVADA	101	950	0	200	0	0	20	0	0	550	1720
144	SIERRA DELTA	46	150	320	100	0	0	400	200	150	250	1570
155	TRI COUNTY	76	150	125	150	0	0	10	0	0	100	535

Total PAOE 3100
Avg. PAOE 221

REGION XI

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications : Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEointTotals
17	MANITOBA	177	0	125	150	0	150	260	0	0	700	1385
18	SOUTHERN ALBERTA	378	0	225	150	0	0	60	0	0	550	985
19	NORTHERN ALBERTA	273	0	150	300	0	0	60	0	0	550	1060
20	BRITISH COLUMBIA	542	300	375	500	0	400	1330	950	250	775	4880
78	INLAND EMPIRE	149	0	75	0	0	0	30	0	0	700	805
79	PUGET SOUND	788	0	500	200	0	0	160	0	0	950	1810
80	OREGON	608	0	620	1400	0	1450	690	1000	850	1650	7660
96	REGINA	98	0	0	400	0	0	20	0	50	550	1020
102	SASKATOON	108	0	85	250	0	0	10	0	0	100	445
122	ALASKA	195	0	225	200	0	0	70	0	0	650	1145
145	VANCOUVER ISLAND	101	0	100	285	0	0	20	0	0	450	855

Total PAOE 300
Avg. PAOE 27

REGION XII

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE pointTotals
34	JACKSONVILLE	244	0	515	150	0	0	60	0	0	675	1400
35	FLORIDA WEST COAST	412	0	370	250	0	275	630	750	100	1025	3400
36	MIAMI	213	0	160	150	0	0	0	200	0	500	1010
94	CENTRAL FLORIDA	340	150	380	300	0	1020	545	1670	350	800	5215
104	GOLD COAST	197	0	200	100	0	0	50	100	0	500	950
110	PUERTO RICO	86	0	100	100	0	0	0	200	0	100	500
139	SOUTHWEST FLORIDA	127	0	75	250	0	0	270	1150	400	200	2345
172	BRASIL	182	150	160	1302	0	520	1560	600	650	1375	6317
178	ARGENTINA	132	0	75	745	0	1170	1425	400	500	1625	5940
190	COLOMBIA	66	300	0	500	0	0	1065	150	150	550	2715
196	CHILE	60	50	25	300	0	250	300	1000	0	450	2375
199	ECUADOR	41	0	45	275	0	0	0	100	0	600	1020
202	PARAGUAY	46	425	5	200	0	150	630	650	350	450	2860
209	ASHRAE CARICOM	75	0	200	650	0	0	20	600	300	1600	3370
213	SOUTH BRAZIL	65	0	485	1325	0	410	525	1750	100	1975	6570
220	Peru	106	0	115	50	0	0	200	100	0	775	1240

Total PAOE 1075
Avg. PAOE 67

REGION XIII

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
142	SINGAPORE	341	150	605	350	0	1040	930	1750	550	725	6100
143	HONG KONG	757	150	950	1100	0	150	50	2150	350	1800	6700
149	MALAYSIA	218	450	570	835	0	250	1425	1800	1050	1375	7755
157	TAIWAN	117	150	805	675	0	1950	2420	300	1600	500	8400
167	PHILIPPINES	181	150	500	100	0	100	60	300	300	675	2185
170	THAILAND	96	150	125	50	0	0	20	1100	300	350	2095
183	INDONESIA	108	100	150	50	0	0	450	300	350	1425	2825
194	JAPAN	210	150	100	100	0	0	90	300	150	400	1290
195	SOUTH KOREA	86	150	125	50	0	0	10	0	150	150	635
198	MACAO	90	150	750	0	0	570	0	300	1750	1050	4570

Total PAOE 1750
Avg. PAOE 175

REGION XIV

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
168	HELLENIC	129	0	100	450	0	0	0	0	0	650	1200
176	DANUBE	110	0	200	100	0	0	0	0	0	650	950
177	PORTUGAL	75	0	110	150	0	0	0	0	0	400	660
182	SPAIN	166	0	1110	100	0	0	30	0	0	300	1540
203	CYPRUS	39	0	60	0	0	0	10	0	0	0	70
204	IRELAND	105	0	185	100	0	0	20	0	0	850	1155
205	UK MIDLANDS	116	0	150	300	0	0	10	100	0	975	1535
206	UK LONDON and SOUTH-EAST	275	0	130	50	0	0	30	0	0	350	560
214	ISRAELI	74	0	425	0	0	0	20	0	0	300	745

Total PAOE 0
Avg. PAOE 0

REGION-AT-LARGE

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE ointTotals
158	INDIA	217	550	125	1475	0	200	110	750	150	925	4285
160	SAUDI ARABIA	181	100	135	50	0	0	210	300	0	1025	1820
161	CAIRO	103	200	280	300	0	0	0	0	0	1550	2330
162	LEBANESE	106	200	0	0	0	0	20	0	0	250	470
163	WESTERN INDIA	91	350	0	580	0	430	755	200	0	650	2965
164	KUWAIT	51	100	75	200	0	0	10	0	0	775	1160
169	ASHRAE BANGALORE	88	1200	100	355	0	0	0	400	150	1075	3280
171	SRI LANKAN	91	350	75	200	0	0	0	0	0	550	1175
174	PAKISTAN	89	350	10	50	0	0	10	0	0	575	995
175	ASHRAE FALCON	460	300	135	300	0	0	50	0	0	675	1460
179	NORTHERN PAKISTAN	55	200	125	400	0	0	0	400	0	500	1625
181	BAHRAIN	49	1250	505	320	0	500	395	700	0	1725	5395
184	QATAR ORYX	157	850	135	0	0	0	10	0	0	475	1470
185	CHENNAI	82	100	150	0	0	0	0	0	0	575	825
186	PUNE	101	300	580	0	0	0	10	900	0	1300	3090
187	ASHRAE NIGERIA	135	150	595	200	0	0	1200	850	0	1175	4170
188	ASHRAE MUMBAI	125	650	365	150	0	400	1945	200	200	550	4460
189	CENTRAL PAKISTAN	62	200	50	50	0	100	325	400	50	600	1775
191	ASHRAE DECCAN	61	550	25	875	0	380	1075	800	0	350	4055
193	TURKISH	100	1375	325	1350	0	700	1060	950	50	775	6585
197	BANGLADESH	45	400	50	0	0	0	0	0	0	600	1050
207	SOUTH AFRICA	156	350	615	0	0	490	1050	0	1150	500	4155
210	FAISALABAD	32	100	0	0	0	0	0	0	0	550	650
211	PYRAMIDS	75	750	225	0	0	0	10	0	600	975	2560
212	JORDAN	49	100	50	0	0	0	0	0	0	150	300
215	EAST INDIA	52	300	50	0	0	0	0	0	0	775	1125
216	RAJASTHAN	54	900	180	250	0	1250	2550	2310	300	350	8090
217	CHANDIGARH	73	300	60	800	0	0	0	0	0	900	2060
218	OMAN	43	100	50	0	0	0	10	150	0	400	710
219	LIBYA	40	100	0	0	0	0	0	0	0	100	200
221	Sudan	50	0	10	0	0	0	0	0	0	300	310

Total PAOE 12725

1/11/2021

PAOE for History	Region	PAOE Pts
1	RAL	12725
2	7	3250
3	10	3100
4	8	2850
5	1	2795
6	2	2025
7	13	1750
8	9	250
9	12	1075
10	5	300

Highest Chapters	PAOE History	Members	POINTS PER MEMBER
LOUISVILLE	1400	191	7.33
TURKISH	1375	100	13.75
BAHRAIN	1250	49	25.51
ASHRAE BANGALORE	1200	88	13.64
NORTHERN NEVADA	950	101	9.41
QATAR ORYX	850	157	5.41
ASHRAE MUMBAI	650	125	5.20
AUSTIN	625	367	1.70
ASHRAE DECCAN	550	61	9.02
INDIA	550	217	2.53
MALAYSIA	450	218	2.06
SOUTH DAKOTA	450	126	3.57

Historical Committee 2020-2021 MBOs –Dean Borges Chair						
Objective	PR	Comp. Date	Fiscal Impact	Respon.	Status	Comment
1. Develop proposals to improve the opportunities for Regional Historians to participate in Historical Committee activities.	1	Winter 2021 Chicago	None	RVC Guideline subcom	Ongoing	Continue on-line participation of (RVCs) at Committee meetings.
2. Develop PAOE Recommended Changes to 2021- 2022 PAOE	1	2021 Chicago	None		Complete	To get ahead of the PAOE Committee Cycle with proposal for the following year's PAOE Letter in Summer 2021
3. History VC PAOE Update Summary Report at Annual & Winter Meetings to include copy to 2019-2020 Annual meeting	1	Winter & Annual	None	VC Report	Complete	To encourage RVCs to target the below PAR performing Chapters in their Region based on the previous year's History PAOE Summary.
4. Encourage Chapter Historians who don't attend their Regional CRC to complete the Chapter Historians Training Power Point & promote on-line workshop participation at CRCs	1	Winter 2021	Minor	RVC Guideline subcom	Complete	Update the Chapter Historians Training PowerPoint. Add points for submittal of a completed MBO with phone discussion with RVC History prior August 30 of fiscal year. Promote on-line workshop participation at CRCs
5. Foster collaboration with other international societies to improve our historical research and support history-related activities of the Society	4	Summer 2021	None	Historical Committee	Ongoing	Continue work on collaboration. HC has links with similar groups in CIBSE & AiCARR - opportunity to pursue to work w/similar committees in CEN, International Institute of Ammonia Refrigeration (IIAR), International Institute of Refrigeration (IIR), & Global Cold Chain Alliance (GCCA).
6. Encourage younger members of ASHRAE to have interest in history-related activities of the Society	2	Summer 2021	None	Historical Committee	Complete	Proposing to keep the PAOE line item "For a local Chapter Historical activity performed by an actively engaged YEA member"
7. Leadership Recall Arrange for videos at Annual meeting 2021	2	Summer 2021	Verify \$1,000 Budget	Historical Committee	Ongoing	Arrange 2 Presidential interviews. Review other potential interviewees
8. Digitize Archived Journals & Transactions	3	Summer 2021	Major	Historical Committee/ PEC	Ongoing	Encourage digitalization of all Society Journals & Transactions
Jun 27–July 1, 2020 Austin, Tx						June 26-30, 2021, Phoenix, AZ



Shaping Tomorrow's
Built Environment Today

Publications Committee Report to
the Products Subcommittee of the Publishing and Education Council
Thursday, January 21, 2020, 12:30-2:00 p.m.

Action Items for PEC

(None)

Information Items

1. Publications Committee members voted to select the winner for the 2020 Journal Paper Award, the title and authors of which Sarah Foster has forwarded to the Honors and Awards Committee for award presentation at the 2021 ASHRAE Annual Conference.
2. Updates on the Publications Committee MBOs for the 2020-2021 Society year are included in *Attachment A*.
3. A Publications Committee subcommittee drafted survey questions regarding Presidential Member Tim Wentz's idea for a series of Application Guides, and a survey was sent to all ASHRAE members in December 2020. Results of the survey are detailed in *Attachment B*.

Respectfully submitted,

Hugh D. McMillan III, Chair
Publications Committee
19 January 2021

Publications Committee

MBOs for Society Year 2020-2021
Chair: Hugh D. McMillan III Date: 15 January 2020

Objective	SP 2019-2024*	Compl. by	Fiscal Impact	Resp. Party	Comment/Status
Reduce conference calls to bimonthly	3-3	July 2020	None	McMillan	Streamline committee operation by optimizing quantity of meetings. Discuss ASHRAE Journal Articles by exception only, meaning only if there is something exceptional to discuss about a particular article. <i>Completed</i>
Reorganize Planning Subcommittee	3-2, 3-3	January 2021	None	Mehboob	Planning Subcommittee to meet for 1 hour on Saturday of Winter and Annual meetings. May need to conduct some business between face-to-face meetings. Remainder of time Saturday will be dedicated to PTAR Subcommittee. <i>Completed</i>
Apply Evaluation Rating Sheet rubric to all existing special publications	3-1	June 2021	None	TAC Section Liaisons/Staff	Each TAC Section Liaison should apply the recently approved Special Publications Evaluation Rating Sheet for the TCs to which they are the liaison. This will require input from staff on some items of the rubric.
Institutionalize PTAR Subcommittee operations	3-2, 3-3	June 2021	None	Thrasher	Review and edit as necessary the PTAR Process and Forms and insert any required description in the MOP. <i>Unable to complete at present; waiting on RAC regarding final PTAR process.</i>
Mentors reach out to new members	3-2, 3-3	September 1, 2020	None	Tisdale, Murthy	Ask if any questions; review new member orientation PowerPoint if desired by new member. <i>Completed</i>
Additional Recommendations for Strategic Planning:					

*SP 2019-2024 = 2019-2024 Strategic Plan Initiative

Strategic Plan Notes:

Initiative 3: Organizational Streamlining

- Desired Outcome 1 (3-1 above): Evaluate the staff/volunteer support structure to optimize volunteer engagement, efficiency and effectiveness of the Society (e.g. volunteer efficiency). Present and implement findings to support the delivery of key products and services (e.g. Guidelines, Standards, Research, Publications, and Programs) with less cost, reduced time to market and an advancement in market responsiveness.
- Desired Outcome 2 (3-2 above): Redesign leadership/governance structure to support increased operational efficiency and effectiveness of the organization.
- Desired Outcome 3 (3-3 above): Targeted streamlining for committee operational effectiveness through the reduction of overlap and optimization of quantity, scopes.

**Application Guides –
Member Survey Sub Committee Report**
ASHRAE Publications Committee

Committee Members:

Adeeba Mehboob : Chair
Vikram Murthy : Member
Eduardo Donoso : Member
Cindy Michaels : Staff

Acknowledgement:

ASHRAE Marketing Department

Date: Jan 14, 2021

1.0 Background:

Presidential Member, Tim Wentz envisaged the idea of having ASHRAE publish 'Application guides' on various HVAC topics that would "be written in simple, straightforward language for those entering the consulting engineering field."

The Application Guides Subcommittee was established to establish the feasibility of publishing such guides. The Subcommittee investigated the idea initially and In its report of May 15, 2020 proposed a market survey for establishing the perceived need, the publication medium (virtual or paper), the sellable price point for such guides for 'a market driven process'.

This Market Survey Subcommittee was thereafter tasked to formulate the survey questionnaire for establishing the market demand for such guides. The survey was sent out on the survey monkey platform on the 9th December 2020 by ASHRAE's Marketing department and responses collected over a two week period.

2.0 The Survey Questionnaire

The survey questionnaire was drafted by the committee and finalized based on comments and feedback from the Publications Committee and the TC's. **Attached as Annexure A.**

Though the intent was to reach out and follow up with the groups of people listed below, ASHRAE marketing did not have a way of sending separate sets of mails except to the entire membership.

- All ASHRAE Membership – YEA more importantly
- Employers who train their employees
- Student branch members
- University graduates and faculty

- ASHRAE Learning Institute
- AASA
- TC's

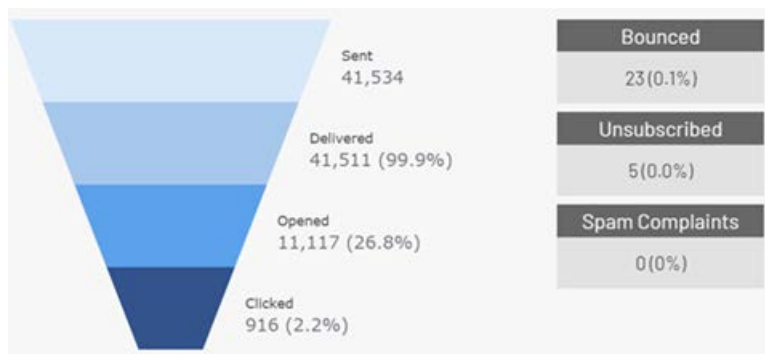
Survey Follow up through

- RVC YEAs to YEA Committees Chairs to their members
- DRC's to their Chapter Presidents to Industry
- RVC SA to SA Chairs to student members
- Refrigeration Chair

3.0 Survey Data

a. Total Number of Respondents

- There were **628 respondents**.



b. Response Times

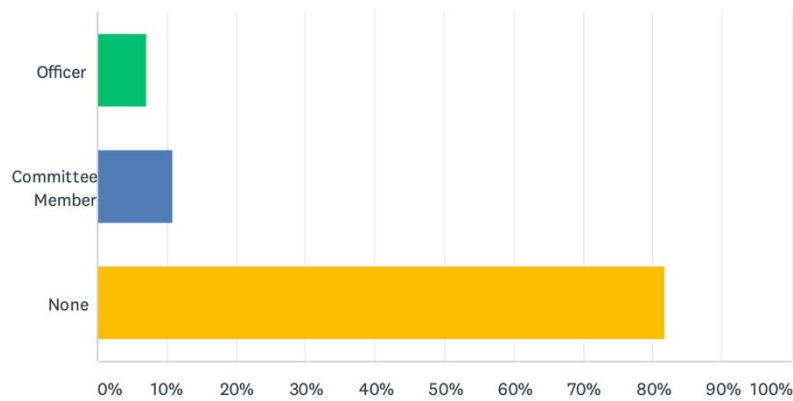
- 479 respondents in 24 hours.
- 133 over a week.
- 16 after one week.

c. Responses Chapter-wise

- Response received from 156 **Chapters** of 198 Total Chapters. **79%**
- Largest Response from **Non Chapter Members**, **10%** of respondents
- Chapters with Highest Responses
 - Illinois - 17
 - Atlanta - 15
 - Minnesota - 12
 - Rocky Mountain - 11
 - Houston-11
 - Sr. Louis -11
 - Toronto -11
 - Detroit - 10
- 151 Chapter members responded from **outside of USA and Canada**. **24%**.

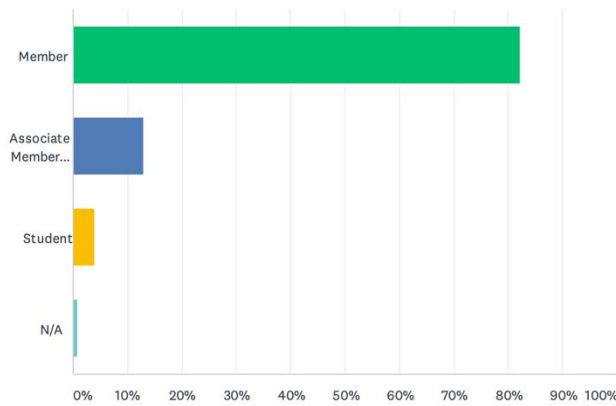
d. Respondents' Position In Chapter

- Majority respondents **hold no Chapter positions** currently.



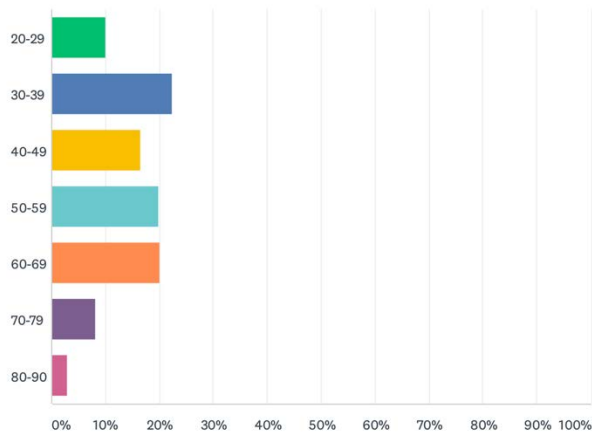
e. Respondents' Membership Status

- Majority respondents are **Full Members**.
- Only 25 students responded. (Need to confirm if Survey was sent to students? Unlikely)



f. Respondents' Age

- 207 Respondents under the age of 40 = 32% (YEA)
- 199 Respondents over the age of 60 = 31% (Senior)
- 232 Respondents between ages 40 to 60. = 37%



g. Respondents' Professions

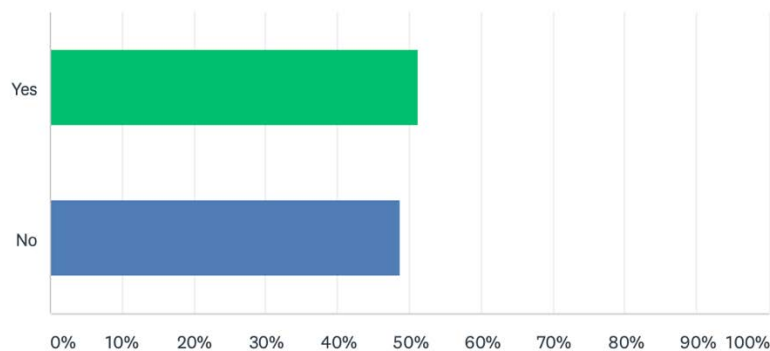
- 239 Respondents Consulting Engineers. 37%
- 60 Respondents Arch/Engineers. 9%
- 58 Respondents Manufacturers. 9%
- 56 Respondents Contractors. 9%
- 56 Respondents Gov/Health/Education. 9%

h. Respondents' Titles

- 340 Respondents identified as Engineers. 54%
- 204 Respondents identified as Executives. 33%

i. Have you owned or referred to HVACR Application Guides?

- 50% Respondents answered yes.

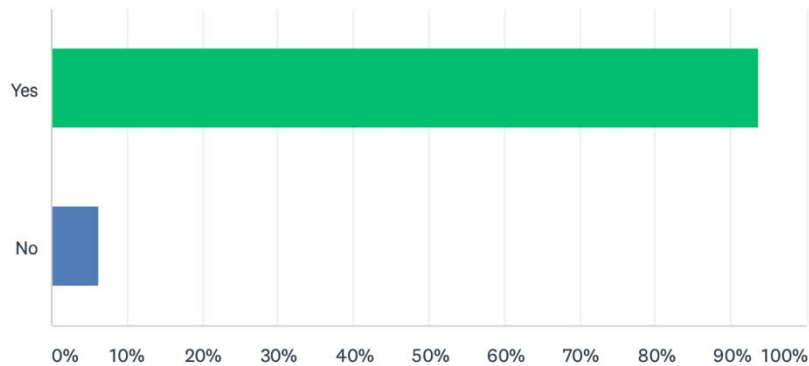


- 257 Respondents provided examples of HVACR Application Guides owned or referred to.
- 57 Respondents cited Manufacturer published Application guides like, Carrier, Trane, Price, Daikin, Mitsubishi etc.
- 20 Respondents cited guides from other organizations like CIBSE, ISHRAE, USGBC, RHEVA etc.

4.0 Survey Results

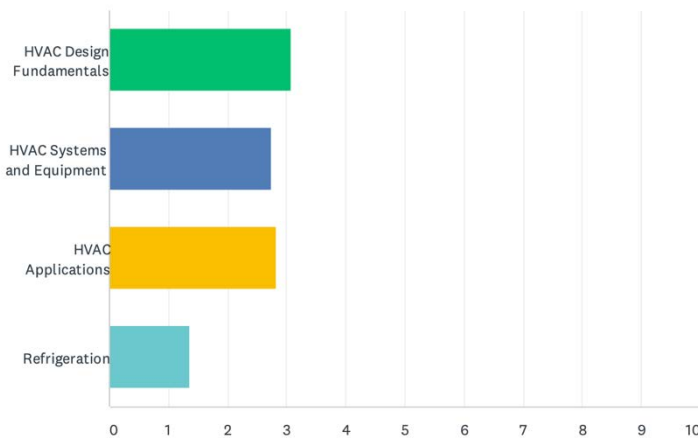
a. Interest in ASHRAE published Application Guides

- **598 respondents** showed interest in ASHRAE published Application guides.



b. Broad Subject Category Preference

- Equal Interest in all categories except Refrigeration. Likely because fewer people in from the Refrigeration industry responded?
- 427 Respondents.



c. Topic Preference

HVAC Design Fundamentals

- Cooling and heating Load
- Introduction to Air Conditioning Systems
- Air Conditioning Psychrometrics

HVAC Systems and Equipment

- Thermal Storage and Energy Recovery

- Variable Air Volume Systems
- Chiller Systems

HVAC Applications

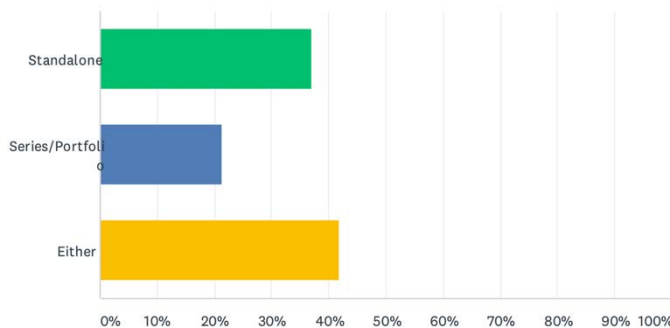
- HVAC Systems for Medical Facilities
- HVAC Systems for Data Centres
- HVAC Systems for Clean Rooms

Refrigeration

- Introduction to Refrigeration Systems
- Applications of Refrigeration Systems
- Line sizing for Commercial HVAC/R Systems

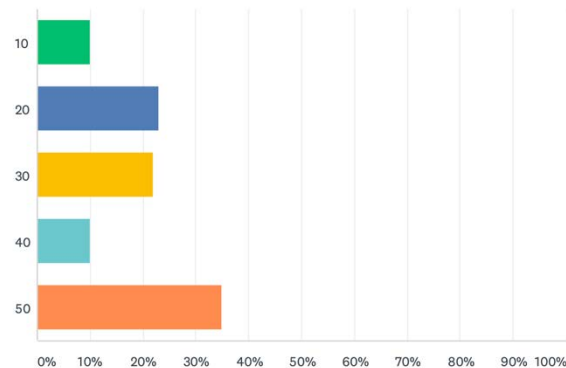
d. Preference for standalone or series/portfolio guides

- **No strong preference either way.**



e. Maximum expected pages of guide

- 149 Respondents, the majority, expect **50 pages**.
- 192 Respondents expect between **10-30 pages**.

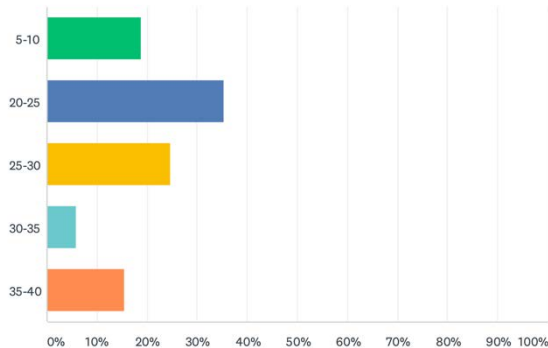


f. E book or Hard print

- 211 Respondents, the majority, expect **both**.
- Otherwise the preference is for an e book.

g. Maximum Selling Price

- 231 Respondents, the majority will pay **20 USD or lower**.
- 105 more Respondents are willing to pay upto 30 USD.



h. Reference Tools and Calculators and Videos

- The majority believe they will be a value addition.

i. Sample Comments

- Crowded Market, due to Manufacturers. Possible collaboration.
- ASHRAE will be a Neutral Party publication
- Look into Unaddressed Content.
- Dovetail with ASHRAE Handbooks
- High level, simple, not too academic
- Globalize

j. Authorship Volunteers

- 3 Volunteers for writing the guide and/or providing support.

k. Criticism

- 3 Respondents were unhappy with the proposed topics.

5.0 Way forward

- Are we happy with the number of respondents?
- Would we want more YEA responses?
- Are we happy with the survey?

- Initiate the Guides Portfolio Subcommittee
 - Decide on series or standalone concept
 - Decide on dovetailing handbook proposal – Contact Handbook Committee?
- Decide on the topic/s for publishing – based on survey results of selected topics or market void of proposed topics?
- Initiate the Authoring the Guides Subcommittee
 - Contact volunteers
 - Decide on reference tools and calculators and videos



**Research Journal Subcommittee
Report to Products Subcommittee of PEC
Meeting of Monday, January 11, 2021**

In Attendance

Members: Kelley Cramm, Birol Kılış, David Claridge, Jeffrey Spitler, Mark Owen
Guests: Stephanie Loeh, Cindy Michaels

Motions

None.

Information Items

1. Mr. Owen reviewed the financial statements with the subcommittee and took an action item to review future promotion plans with ASHRAE staff and the *Science and Technology for the Built Environment (STBE)* Journal's publisher Taylor & Francis. (*ACTION ITEM 1*)
2. Ms. Loeh, from Taylor & Francis, gave the Publisher's Report shown in *Attachment A* which including the following highlights:
 - STBE published 129 articles in 2019, 10 of which were Open Access.
 - There were 49,095 STBE article downloads in 2020 YTD; 65% higher than 2019 YTD.
 - 'Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP) by Omer Sarfraz & Christian K. Bach, was the most downloaded article with 2,236 downloads.
 - The top Altmetric-scoring article was 'Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)' by Mehdi Mehrabi & David Yuill, with a score of 10.
 - The top cited article was 'A review of fault detection and diagnostics methods for building systems' by Woohyun Kim, with 34 citations.
 - The 2019 Impact Factor is 1.356, ranking 42/63 in the Construction & Building Technology JCR category.
 - The journal's 2019 CiteScore is 2.6, ranking 32/83 in the Fluid Flow and Transfer Processes Scopus category.
3. Dr. Spitler gave the Editor's Report with information including that the journal received 330 submissions in the last year, publishing 105 papers and 8 editorials. (*Attachment B*)
4. Dr. Spitler reported that nominations for STBE Best Paper were requested and ranked by a jury (Culp, Owen, Bernier, Toftum). In December 2019 the jury's recommendation was sent the Honors and Awards Committee.

Respectfully submitted,
Kelley Cramm, Research Journal Subcommittee Chair
January 11, 2021

Attachment A
Research Journal Subcommittee Report to PEC - Products Subcommittee



Science and Technology for the Built Environment

Confidential Publishing Report

July 2020

Agenda

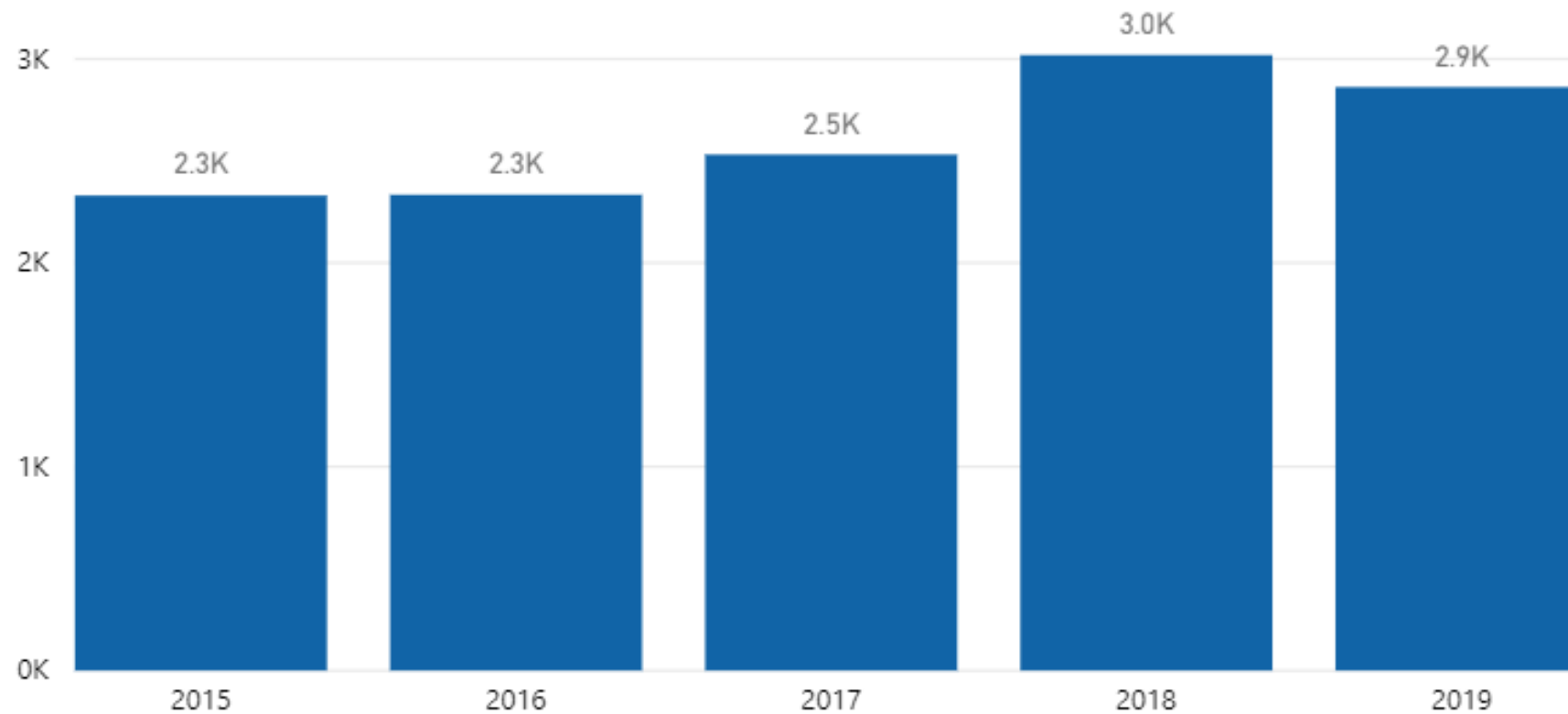
1. Global Reach
2. Altmetric Analysis
3. Citation Analysis
4. Marketing Report
5. Production Report
6. Author Survey
7. Resources
8. Journal Contacts

Highlights

- The Journal received **49,095** article downloads in 2020 YTD, which is **65%** higher than downloads received in 2019 YTD.
- The most downloaded article is '**Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP)**' by **Omer Sarfraz & Christian K. Bach**, with **2,236** downloads.
- The top Altmetric-scoring article was '**Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)**' by **Mehdi Mehrabi & David Yuill**, with a score of **10**.
- The top cited article was '**A review of fault detection and diagnostics methods for building systems**' by **Woohyun Kim**, with **34** citations.
- The journal's 2019 Impact Factor is **1.356**, ranking **42/63** in the **Construction & Building Technology** JCR category.
- The journal's 2019 CiteScore is **2.6**, ranking **32/83** in the **Fluid Flow and Transfer Processes** Scopus category.
- The Journal produced **129** publications in 2019, **10** of which were Open Access.

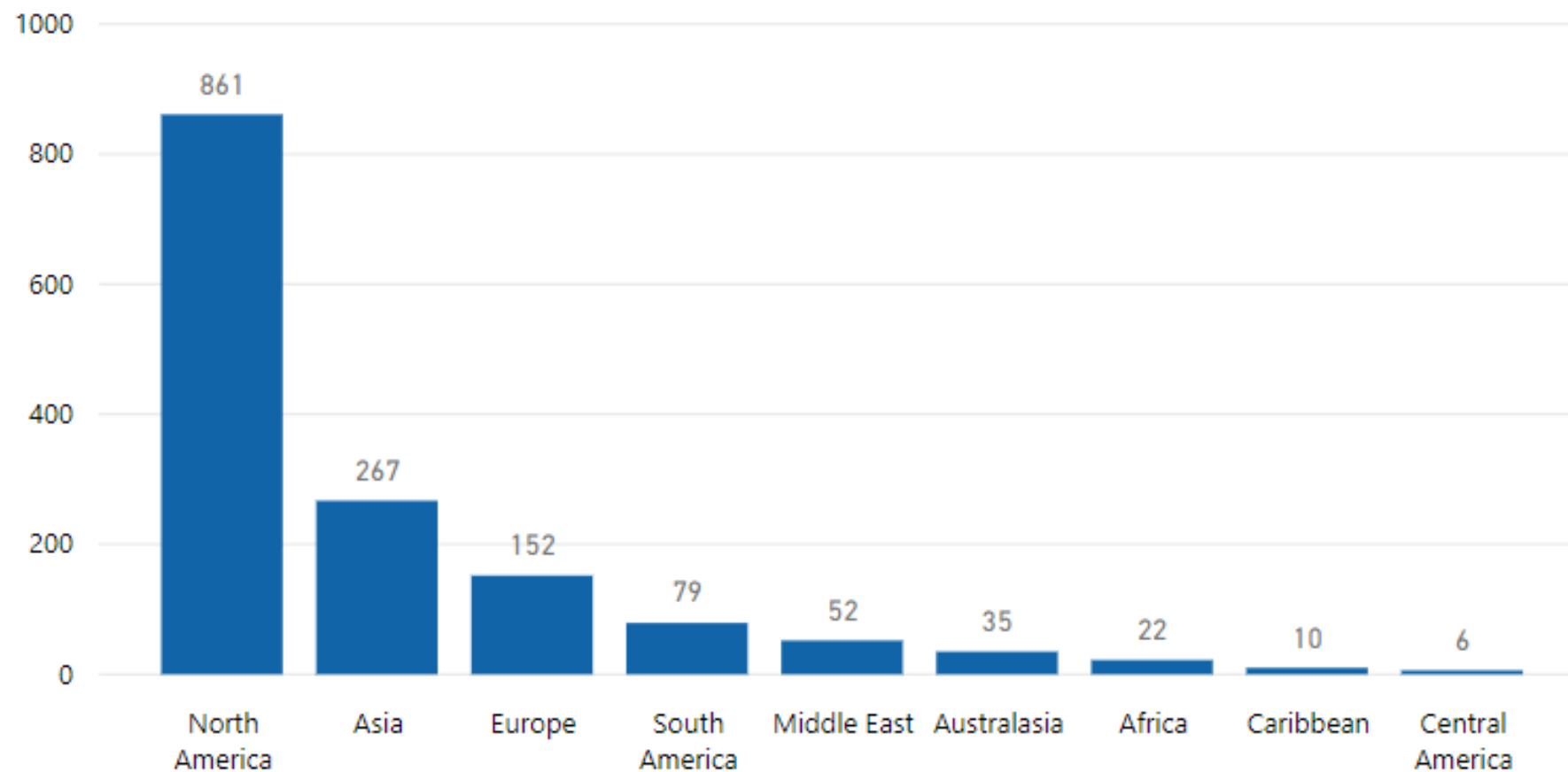
Global Reach – Circulation

Number of Institutions with access via Sales Deal, Subject and Non-Sales Deal Subscriptions

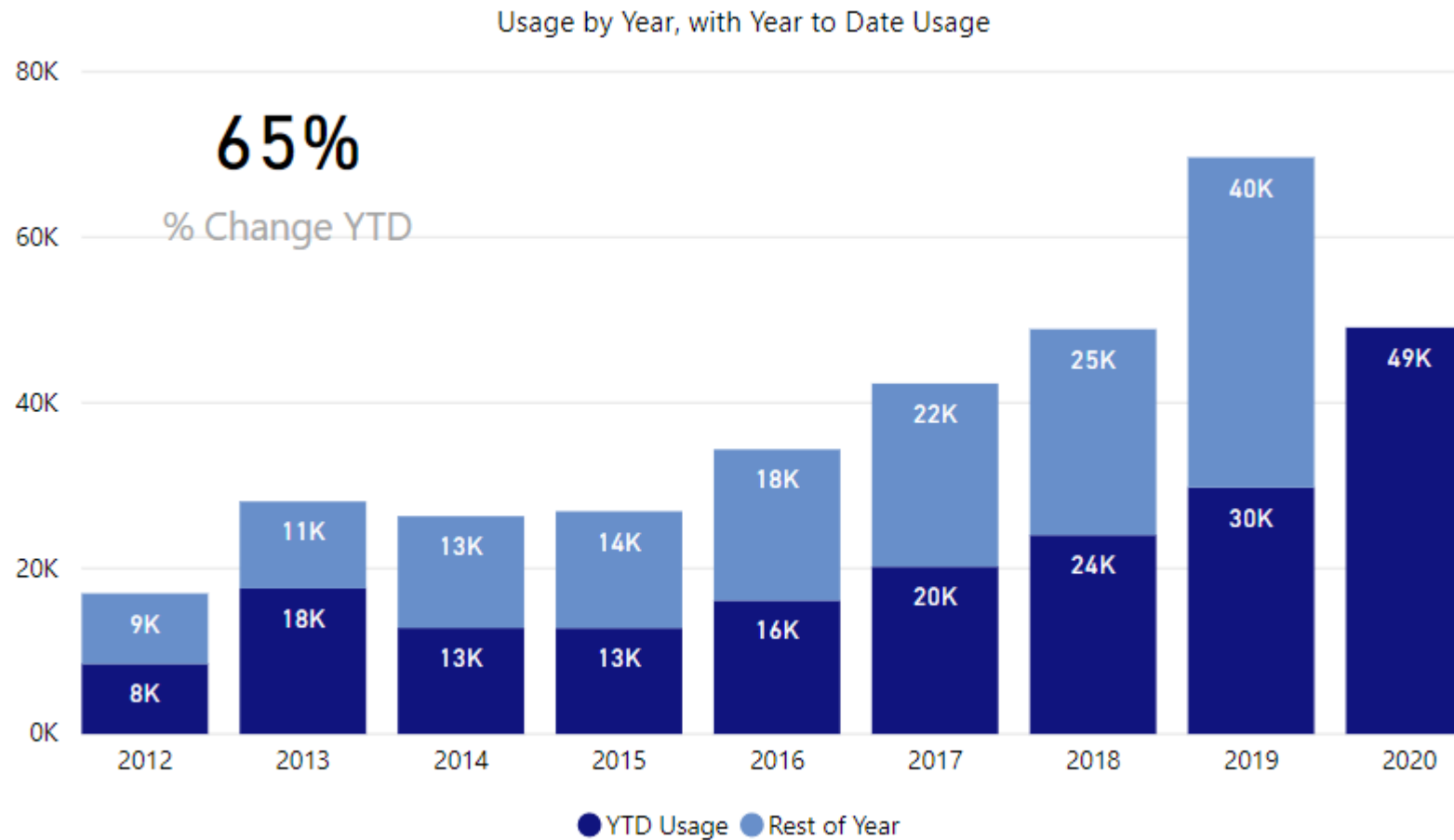


EBSCO Circulation (2019)

EBSCO Coverage 2019 by Region

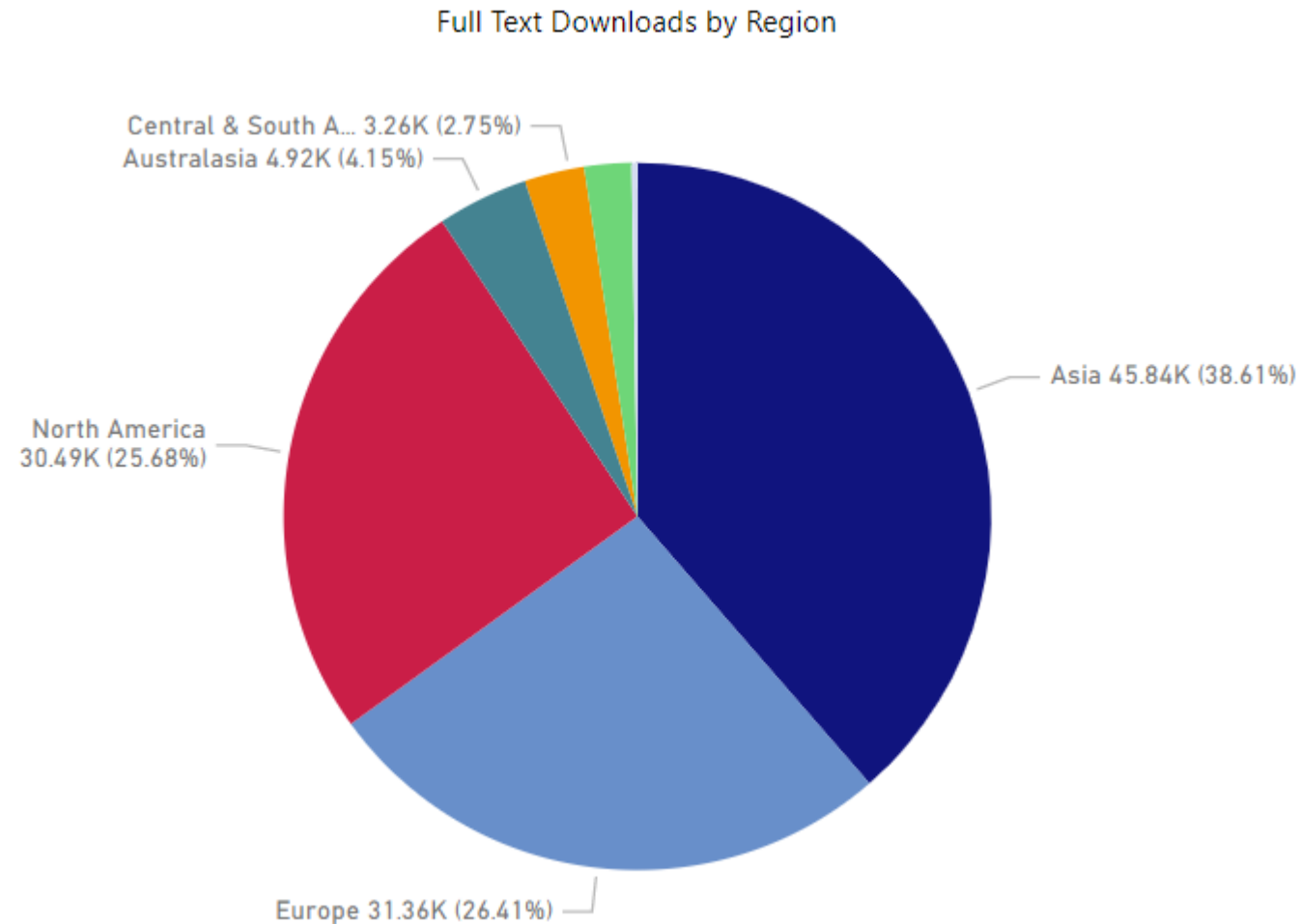


Article Downloads – Taylor & Francis Online (TFO) Usage



Percentage Change YTD is from 2019 YTD to 2020 YTD.

Article Downloads by Region (2019-2020 Year to Date)



Most Downloaded Articles in the Past 12 Months (from Past Three Volume Years)

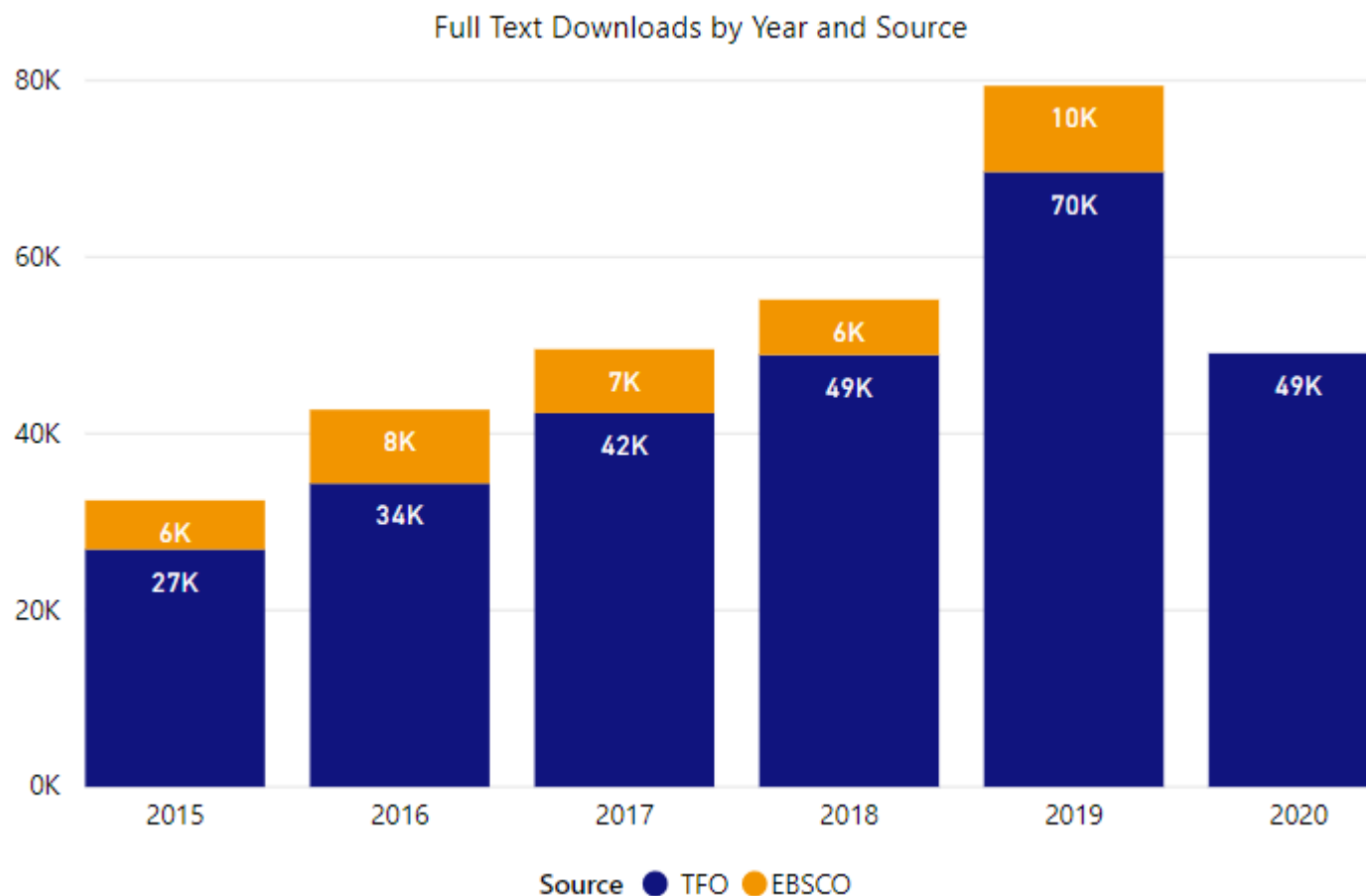
Article Title	Author	Volume, Issue	Number of Downloads	Open Access
Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP)	Omer Sarfraz & Christian K. Bach	Volume 24 Issue 10	2,236	Yes
Traffic noise level predictions for buildings with windows opened for natural ventilation in urban environments	Moon Keun Kim, et al.	Volume 23 Issue 5	1,618	Yes
Design optimization and validation of high-performance heat exchangers using approximation assisted optimization and additive manufacturing	Daniel Bacellar, et al.	Volume 23 Issue 6	1,530	Yes
Supermarket system characteristics and operating faults (RP-1615)	Alireza Behfar, et al.	Volume 24 Issue 10	1,325	Yes
Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)	Mehdi Mehrabi & David Yuill	Volume 25 Issue 6	1,318	Yes
Development of New Low-GWP Refrigerants–Refrigerant Mixtures Including HFO-1123	Mai Hashimoto, et al.	Volume 25 Issue 6	1,193	Yes
A heat transfer and friction factor correlation for low air-side Reynolds number applications of compact heat exchangers (1535-RP)	Pradeep Shinde & Cheng-Xian Lin	Volume 23 Issue 1	1,106	Yes
Ventilation strategies and air quality management in passenger aircraft cabins: A review of experimental approaches and numerical simulations	Hossam A. Elmaghraby, et al.	Volume 24 Issue 2	1,091	No
HVAC control loop performance assessment: A critical review (1587-RP)	Zheng O'Neill, et al.	Volume 23 Issue 4	933	Yes
Window and door opening behavior, carbon dioxide concentration, temperature, and energy use during the heating season in classrooms with different ventilation retrofits—ASHRAE RP1624	Anna Heebøll, et al.	Volume 24 Issue 6	931	Yes

Top Institutions by Downloads (Past 12 Months)

Institution name	Number of Downloads
The University of Manchester	1,232
Hong Kong Polytechnic University	946
Tongji University	903
Tianjin University	842
Purdue University	730
Xian Jiaotong University	707
Purdue University Calumet	705
First Affiliated Hospital of Medical College of Xi'an Jiaotong University	644
National Renewable Energy Lab	621
Oklahoma State University - Stillwater and Tulsa Oklahoma State University	604

Note: Consortia have been removed from this table.

Article Downloads by Source



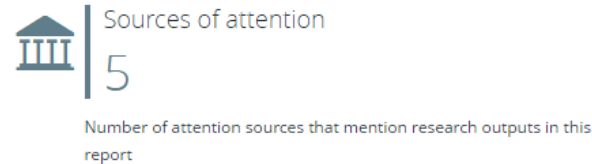
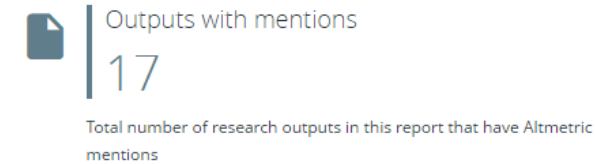
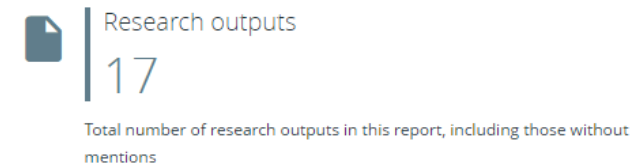
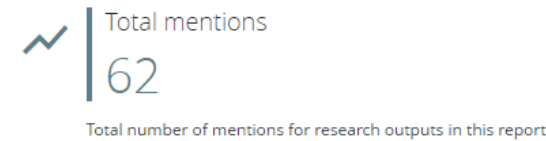
Altmetric Analysis – Top Altmetric Scores (Past Year)

Report generated July 2020

RANK	ATTENTION SCORE	RESEARCH OUTPUT			
#1		Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705) Article in Science and Technology for the Built Environment , June 2019	#6		Engineering control of respiratory infection and low-energy design of healthcare facilities Article in Science and Technology for the Built Environment , January 2015
#2		Integrating IAQ control strategies to reduce the risk of asymptomatic SARS CoV-2 infections in classrooms and open plan offices Article in Science and Technology for the Built Environment , July 2020	#7		IAQ 2016: Defining indoor air quality: Policy, standards and best practices Article in Science and Technology for the Built Environment , December 2017
#3		Modeling infection risk and energy use of upper-room Ultraviolet Germicidal Irradiation systems in multi-room environments Article in Science and Technology for the Built Environment , January 2015	#8		Addressing the building energy performance gap with measurements Article in Science and Technology for the Built Environment , February 2020
#4		Meta-analysis of summertime indoor temperatures in new-build, retrofitted, and existing UK dwellings Article in Science and Technology for the Built Environment , June 2019	#9		Characterization, testing, and optimization of load aggregation methods for ground heat exchanger response-factor models Article in Science and Technology for the Built Environment , September 2019
#5		Indoor air quality in 24 California residences designed as high-performance homes Article in Science and Technology for the Built Environment , January 2015	#10		Development of a test method to determine the effectiveness of UVC systems on commercial cooking effluent (RP-1614) Article in Science and Technology for the Built Environment , July 2020

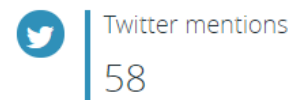
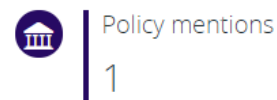
Overview and Source Breakdown of Altmetric Attention Score (Past Year)

REPORT OVERVIEW



ATTENTION SOURCE BREAKDOWN

The number of mentions from each source that Altmetric has tracked for the research outputs in this report.



Link to Altmetric Report

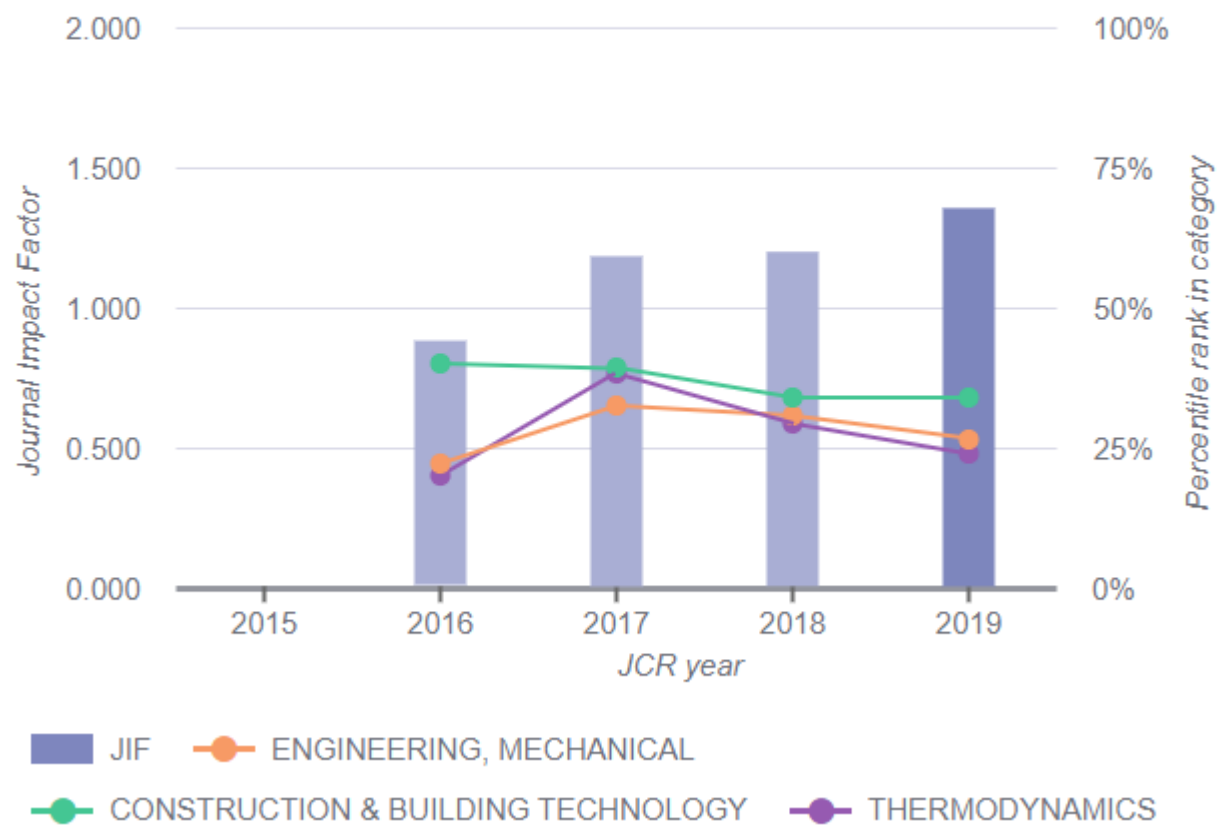
The link below can be used to access a report containing the latest Altmetric attention to your journal. This data is updated daily, so can be used to keep track of trending articles.

<https://www.altmetric.com/explorer/report/269fecca-3cf3-409d-956b-56161e477766>

Impact Factor Chart

1.356

2019 Journal Impact Factor



Impact Factor & Ranking

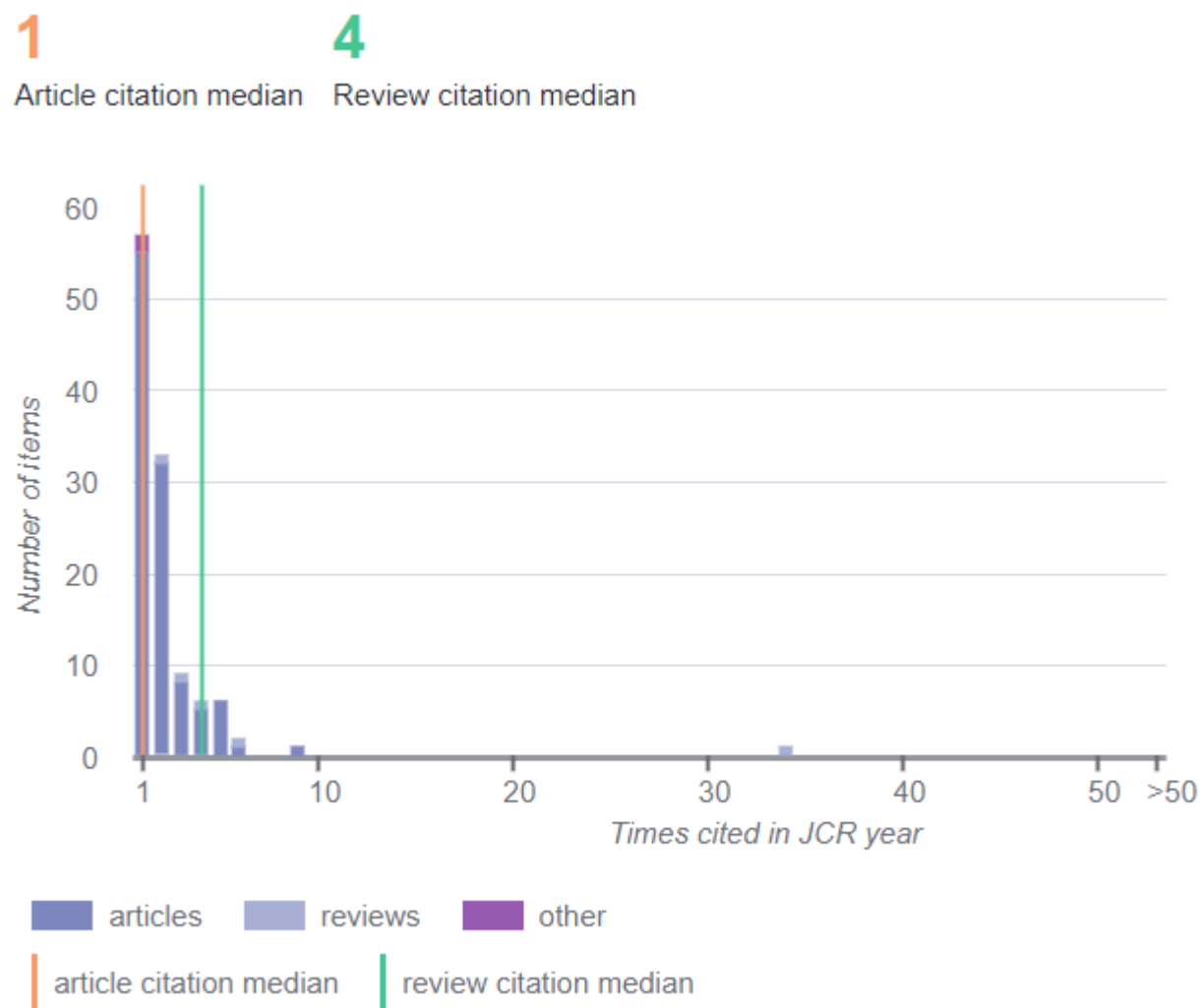
Impact Factor Year	Impact Factor	Rank
2013	0.745	31/58 Construction & Building Technology, 36/55 Thermodynamics 75/126 Engineering, Mechanical
2014	0.673	35/59 Construction & Building Technology, 43/55 Thermodynamics, 92/130 Engineering, Mechanical
2015	0.871	37/61 Construction & Building Technology, 43/58 Thermodynamics, 86/132 Engineering, Mechanical
2016	0.928	37/61 Construction & Building Technology, 47/58 Thermodynamics, 97/130 Engineering, Mechanical
2017	1.183	38/62 Construction & Building Technology, 37/59 Thermodynamics, 87/128 Engineering, Mechanical
2018	1.199	42/63 Construction & Building Technology, 43/60 Thermodynamics, 90/129 Engineering, Mechanical
2019	1.356	42/63 Construction & Building Technology, 47/61 Thermodynamics, 96/130 Engineering, Mechanical

2019 Impact Factor Self-Citation Rate: 32 self-citations out of 274 – 11.67%.

Top Cited Articles – 2019 Impact Factor

Article Title	First Authors	Volume	Issue	Document Type	Citations in 2019
A review of fault detection and diagnostics methods for building systems	Kim, Woohyun	24	1	Review	34
Development and implementation of a thermostat learning algorithm	Gunay, H. Burak	24	1	Article	9
Improvements on the American Society of Heating, Refrigeration, and Air-Conditioning Engineers Handbook equations for sizing borehole ground heat exchangers	Li, Min	23	8	Article	6
Review and analysis of fuel cell-based, micro-cogeneration for residential applications: Current state and future opportunities	Milcarek, Ryan J.	23	8	Review	6
Development of prototypical buildings for urban scale building energy modeling: A reduced order energy model approach	Yang, Guang	24	1	Article	5
Development of a standard capture efficiency test method for residential kitchen ventilation	Kim, Yang-Seon	24	2	Article	5
Multi-objective optimization of thermo-acoustic devices using teaching-learning-based optimization algorithm	Rao, Ravipudi Venkata	23	8	Article	5
Sizing heating, ventilating, and air-conditioning systems under uncertainty in both load-demand and capacity-supply side from a life-cycle aspect	Huang, Pei	23	2	Article	5
Studying the performance of a dehumidifier with adsorbent coated heat exchangers for tropical climate operations	Oh, Seung Jin	23	1	Article	5
Heat and mass transfer performance comparison between a direct-contact liquid desiccant packed bed and a liquid-to-air membrane energy exchanger for air dehumidification	Ge, Gaoming	23	1	Article	5

Article Citation Distribution – 2019 Impact Factor

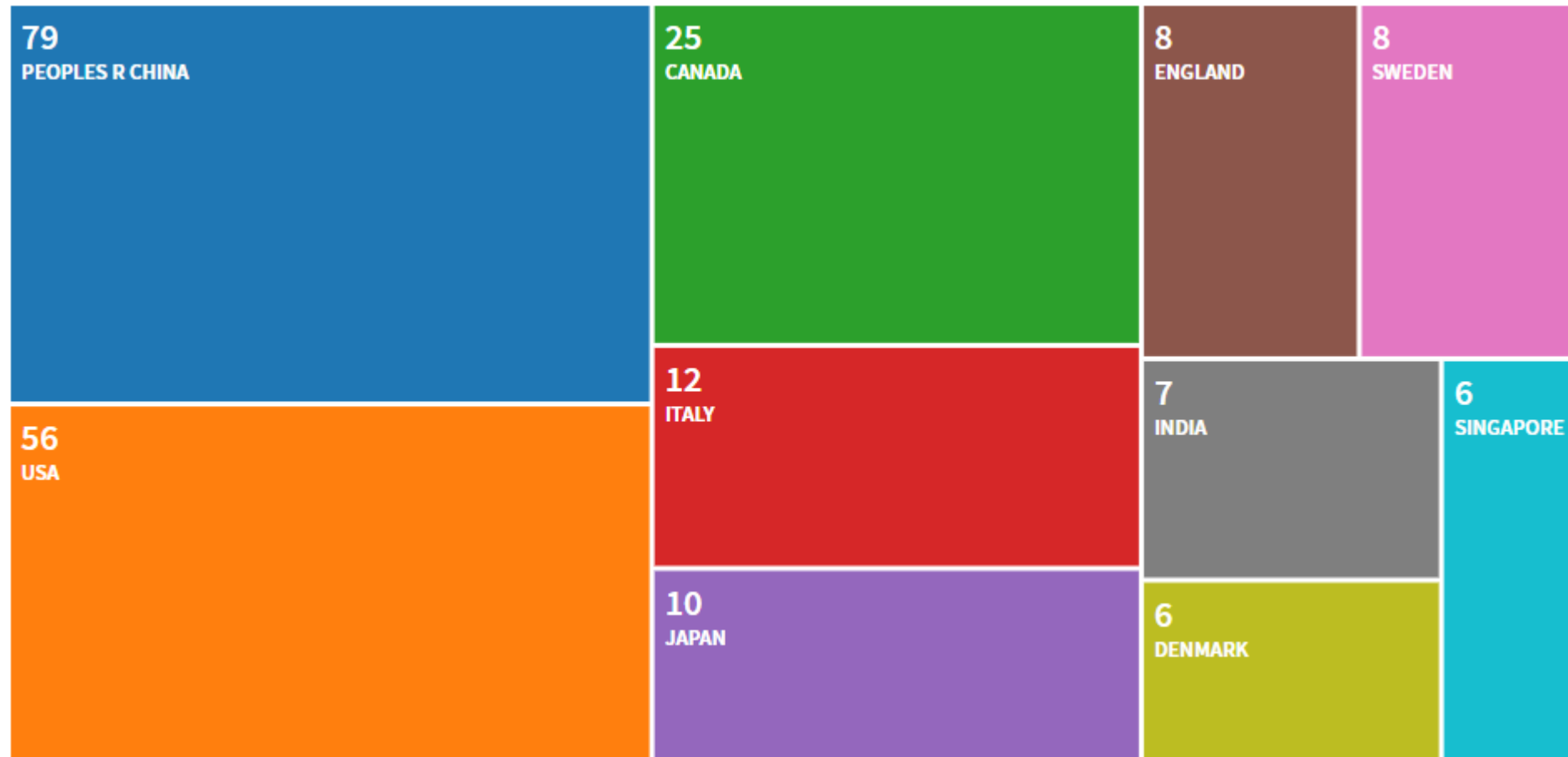


Citing Sources – 2019 Impact Factor



Note: Number of citing articles from each journal.

Citing Regions – 2019 Impact Factor



Note: Shows number of citing articles from each region. Web of Science lists England, Scotland, Wales and Northern Ireland separately.

CiteScore and Ranking

CiteScore	Score	Rank
2015	1.7	18 / 48 Fluid Flow and Transfer Processes, 49 / 101 Environmental Engineering, 49 / 155 Building and Construction
2016	1.7	23 / 53 Fluid Flow and Transfer Processes, 55 / 155 Building and Construction, 56 / 102 Environmental Engineering
2017	1.9	22 / 77 Fluid Flow and Transfer Processes, 60 / 115 Environmental Engineering, 64 / 167 Building and Construction
2018	2.4	27 / 83 Fluid Flow and Transfer Processes, 56 / 124 Environmental Engineering, 63 / 176 Building and Construction
2019	2.6	32 / 83 Fluid Flow and Transfer Processes, 61 / 132 Environmental Engineering, 62 / 174 Building and Construction

Marketing – Objectives

Through various campaigns and the marketing of your journal, our objectives are to:

- Drive and sustain usage
- Demonstrate impact
- Grow international reach
- Attract high quality submissions
- Increase citations
- Increase author and researcher engagement
- Increase membership.

Reaching Readers Emails

In total, 141 STBE articles have been promoted via the RR campaign since January 2019.

Article Title	Contact Count
A study of the effects of water capacity on the thermal performance of water-in-glass evacuated tube solar collectors applied to space heating	2,804
Investigating the influence of different speeds and directions of winds on the performance of split air conditioning systems	1,340
Development of control quality factor for HVAC control loop performance assessment—II: Field testing and results (ASHRAE RP-1587)	1,251
Data-driven energy models for existing VFD-motor-pump systems	1,207
Virtual measurement of the air properties in air-handling units (AHUs) or virtual re-calibration of sensors	1,207
The impact of rock fracturing and pump intake location on the thermal recovery of a standing column well: model development, experimental validation, and numerical analysis	1,141
Study of thermal performance of an air source heat pump heating for suburban residential buildings in Beijing	1,081
Determine the absolute roughness of phenolic duct (RP-1764)	1,004
A numerical analysis and optimization of the dynamic performance of a multipurpose solar thermal system for residential applications	997
Applicability of Control Algorithms for Variable Water-flow Control Practice of Central Air-conditioning Cooling Water System	985

Alerts and Social Media

New Contents Alerts:

The journal can be found at **<https://www.tandfonline.com/UHVC>** where anyone can sign up for new contents alerts. Your journal currently has **191** active e-Table of Contents (e-ToC) subscribers.

Social Media

Taylor & Francis has official social media accounts for each of the major subject areas that provides journal level marketing.

- You can find your relevant Taylor & Francis social media feeds here:
 - Twitter: <http://www.twitter.com/TandFSTEM>
 - Facebook: <http://www.facebook.com/TandFScience>
- You can find the social media guide for editors here: **<http://bit.ly/ER-SocialMedia>**

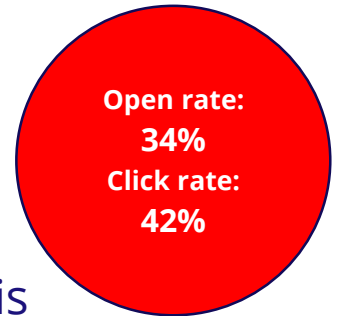
Marketing for Authors

- Authors anniversary emails are sent at 2 weeks, 5 weeks, 3 months, 6 months and 12 months following publication.
- These emails use social sharing buttons to encourage authors to share online, with their own audience, in their own voice.
- Sent to all authors regardless of marketing opt-in status – this is a service email.
- Average open rate of 38% and a click through rate of 8%, considerably higher than industry averages*.



*Current media & publishing industry open rate is 22.15%, click rate 4.61% <https://mailchimp.com/resources/email-marketing-benchmarks/>

Citation Alerts



- Using Colwiz data, we now send citation alert emails to T&F authors where their paper is less than 2 years old, and has been cited by a new article published on TFO. These emails are currently averaging a 34% open rate and 42% click rate.
- This service currently goes to opted-in authors only, though we are investigating including all authors as a service/transaction message.
- To encourage more authors to receive these alerts, please encourage them to check their marketing subscription status at:
<http://pages.email.taylorandfrancis.com/taylorandfrancissubscriptioncenter>

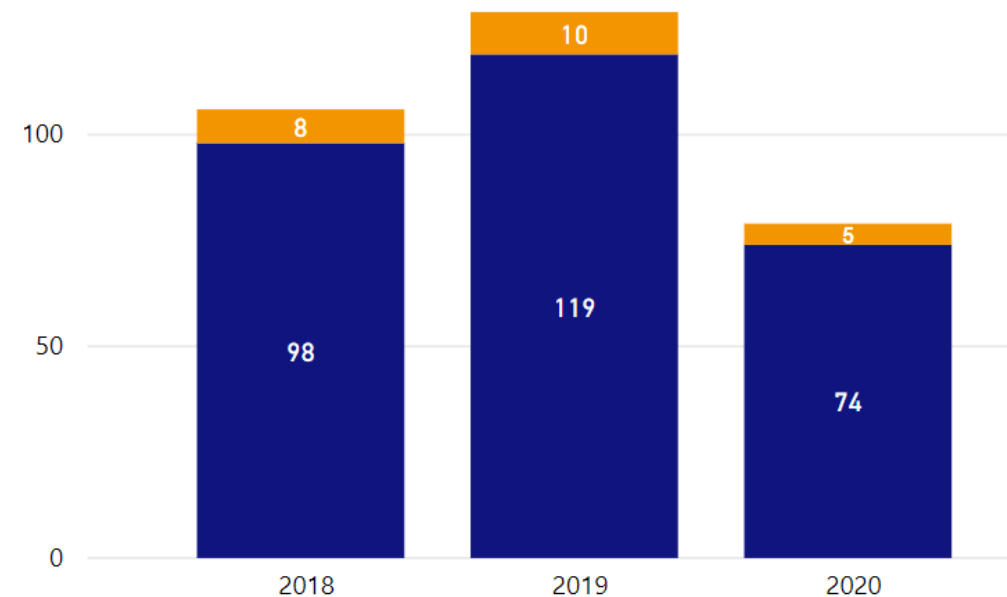
**Current media & publishing industry open rate is 22.15%, click rate 4.61% <https://mailchimp.com/resources/email-marketing-benchmarks/>*

Production – Published Content (Volumes 2018-2020)

Article Type	Distinct Count of Documents
Article	289
Editorial	16
Guest Editorial	4
Correction	2
Corrigendum	2
Addendum	1
Total	314

Number of Articles Published by Volume Year - with OA Split

Open Access Article? ● Non-Open Article ● Open Article



For more information on Open Access and Plan S, please visit:

- <http://authorservices.taylorandfrancis.com/publishing-open-access-with-taylor-francis/>
- <https://editorresources.taylorandfrancis.com/peersupport/coalition-s-plan-s-and-accelerating-oa/>

Production Schedule (January 2019 – July 2020)

Online Issue Published

Issue Number	2019	2020
01	14 February 2019	07 January 2020
02	19 March 2019	30 January 2020
03	19 March 2019	11 February 2020
04	23 April 2019	26 February 2020
05	29 May 2019	22 April 2020
06	08 July 2019	28 May 2020
07	02 August 2019	29 June 2020
08	08 October 2019	
09	29 October 2019	
10	12 December 2019	

Print Issue Published

Issue Number	2019	2020
01-05	27 June 2019	15 May 2020
06-10	19 December 2019	

Page Count Report (Volume Years 2019 and 2020)

Volume Year ▲	Budgeted Pages	Actual Pages	Number of Pages Remaining
2019	1520	1524	-4
2020	1520	1168	352

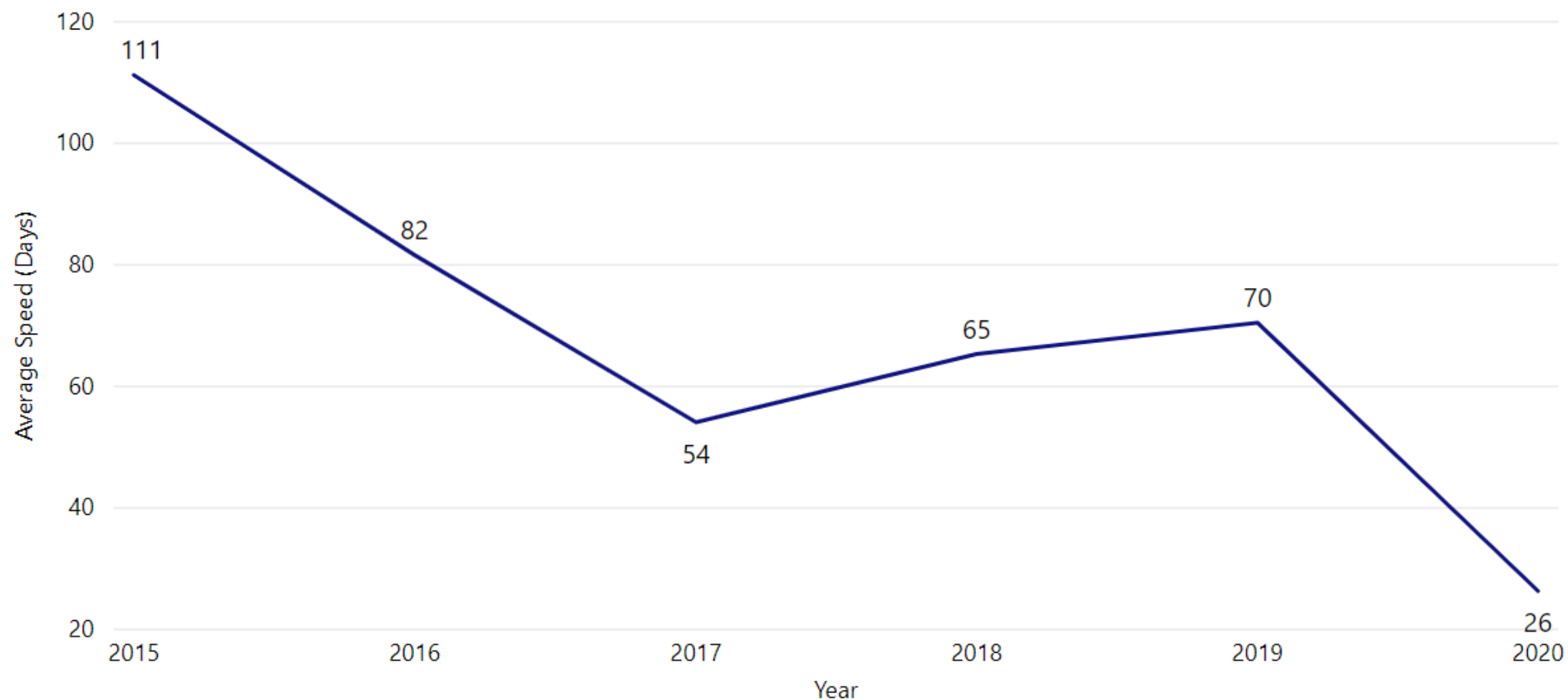
Backlog Report (Volume Years 2019 and 2020)

Manuscript Type	Number of Manuscripts	Number of Typeset Pages
Article	30	431
Total	30	431

The current backlog contains enough articles for the next 2.8 issues.

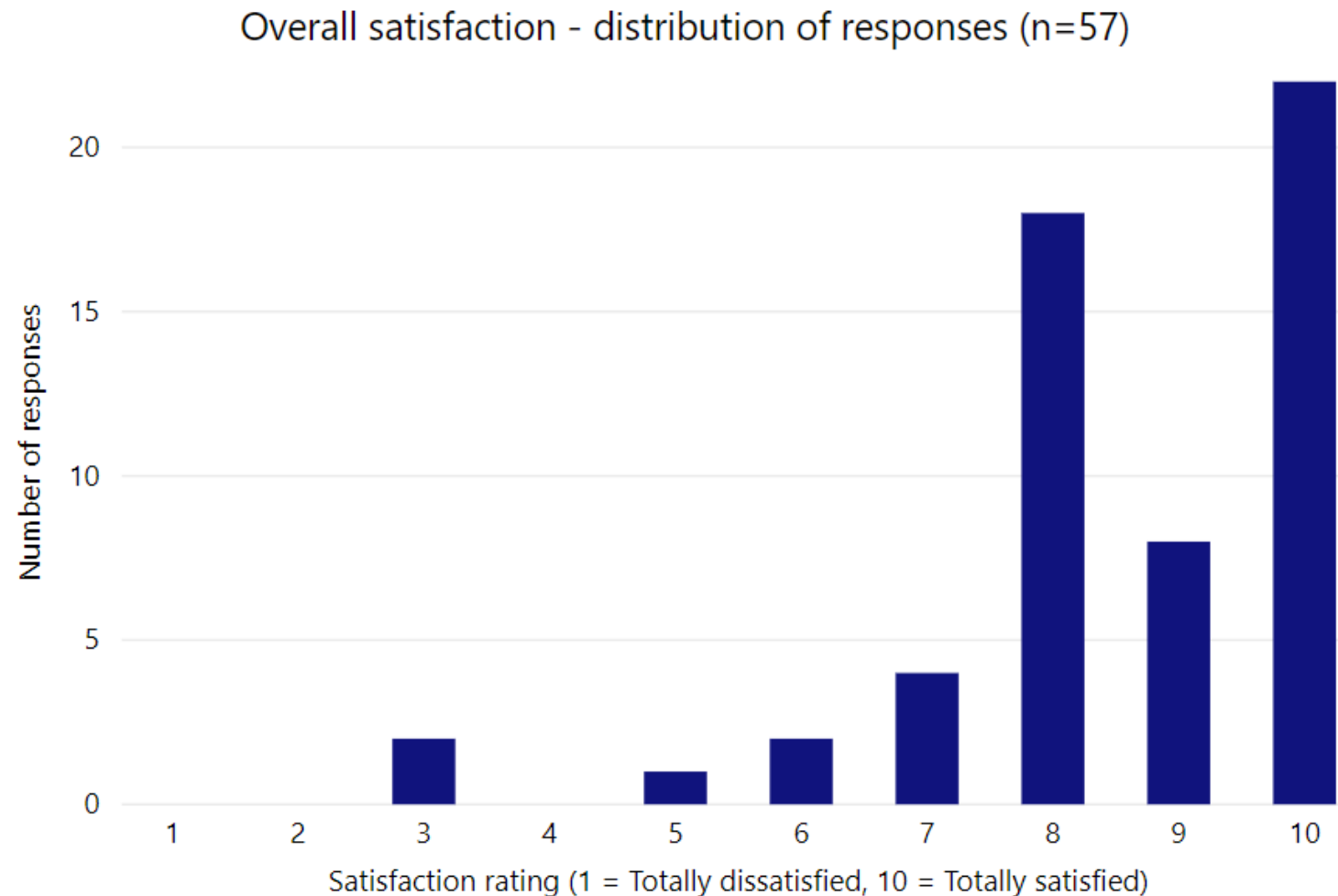
The oldest article not yet assigned to an issue was received in Production on 24 February 2020.

Average Speed of Article Publication*

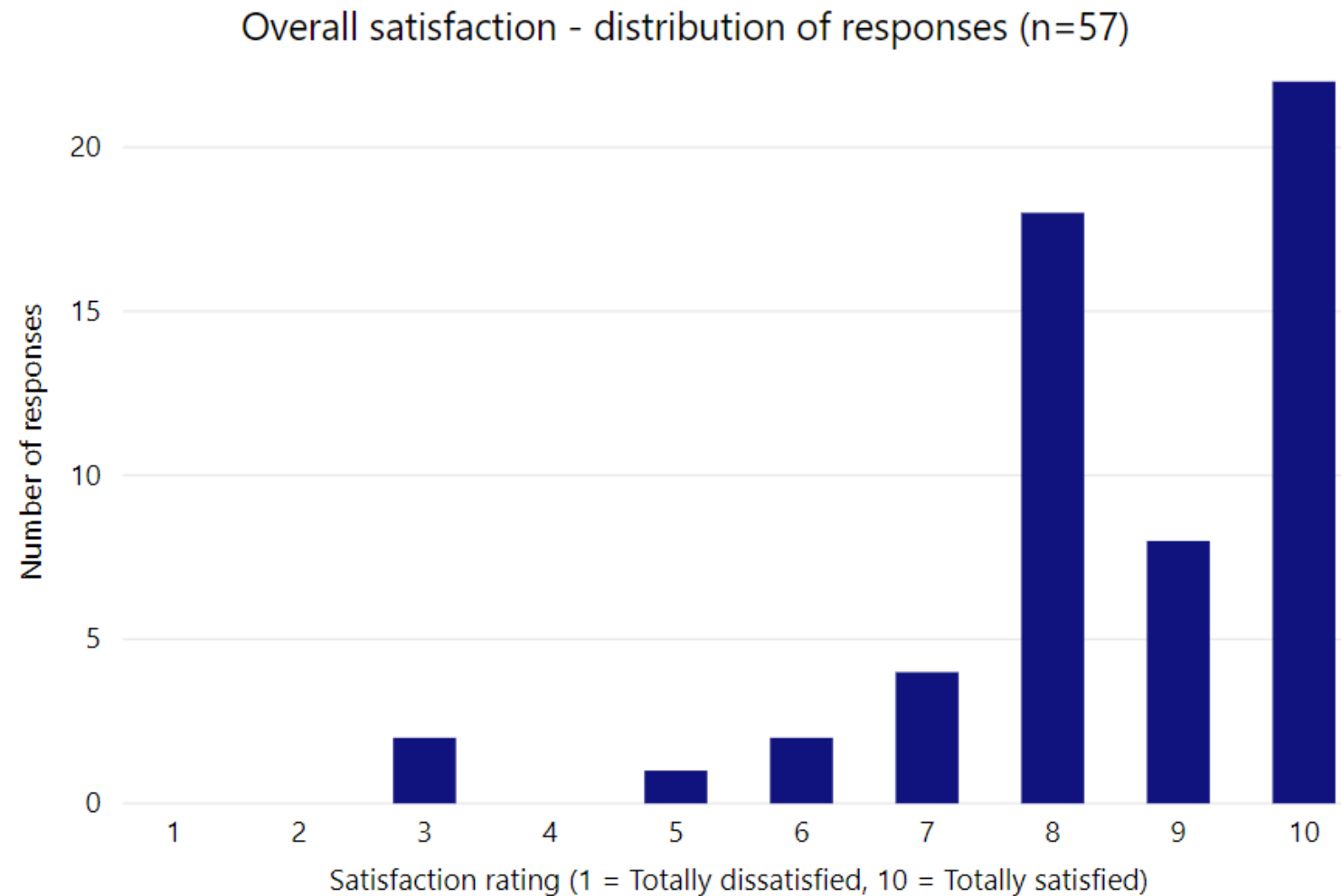


* mean days from submission to Central Article Tracking System (CATS) to online publication.

Author Survey – Overall Satisfaction (2018-2020)



Satisfaction with Refereeing Process (2018-2020)



Resources

News, support and guidance for Editors, authors and Librarians:

EDITORRESOURCES
Supporting Taylor & Francis journal editors

<http://editorresources.taylorandfrancisgroup.com/>

AUTHORSERVICES
Supporting Taylor & Francis authors

<http://authorservices.taylorandfrancis.com>

LIBRARIANRESOURCES
Taylor & Francis supporting librarians

<https://librarianresources.taylorandfrancis.com/>



A bi-monthly campaign designed for Editors.
Sign up here: http://bit.ly/tandf_ppp



Sign up for updates, tips and talking points from **Author Services**, **Editor Resources** and **Librarian Resources** websites straight to your inbox:
<https://authorservices.taylorandfrancis.com/category/insights/>



[@tandfonline](#)
[@tandfnewsroom](#)



[@TaylorandFrancisGroup](#)

Development Initiatives

We need research from around the world to address global challenges. We remain committed, therefore, to supporting emerging region researchers on their publishing journeys.

For more information on the Taylor & Francis development initiatives, please visit:

- <http://taylorandfrancis.com/about/corporate-responsibility/development-initiatives>
- <https://authorservices.taylorandfrancis.com/star>
- <https://librarianresources.taylorandfrancis.com/services-support/development-initiatives>
- <https://www.taylorandfrancis.com/sdgo>



Feedback

We'd love to hear what you think! If you have any feedback or suggestions for improvement, please fill out the below questionnaire using the following link or scan the QR code:

<https://www.surveymonkey.co.uk/r/TTJG7TP>



Journal Contacts

Editorial

- Portfolio Manager – stephanie.loeh@taylorandfrancis.com

Production

- Production Editor – UHVC-production@journals.taylorandfrancis.com

Peer-Review

- Peer Review Help Desk – PRSHelp@tandf.co.uk



Science and Technology for the Built Environment

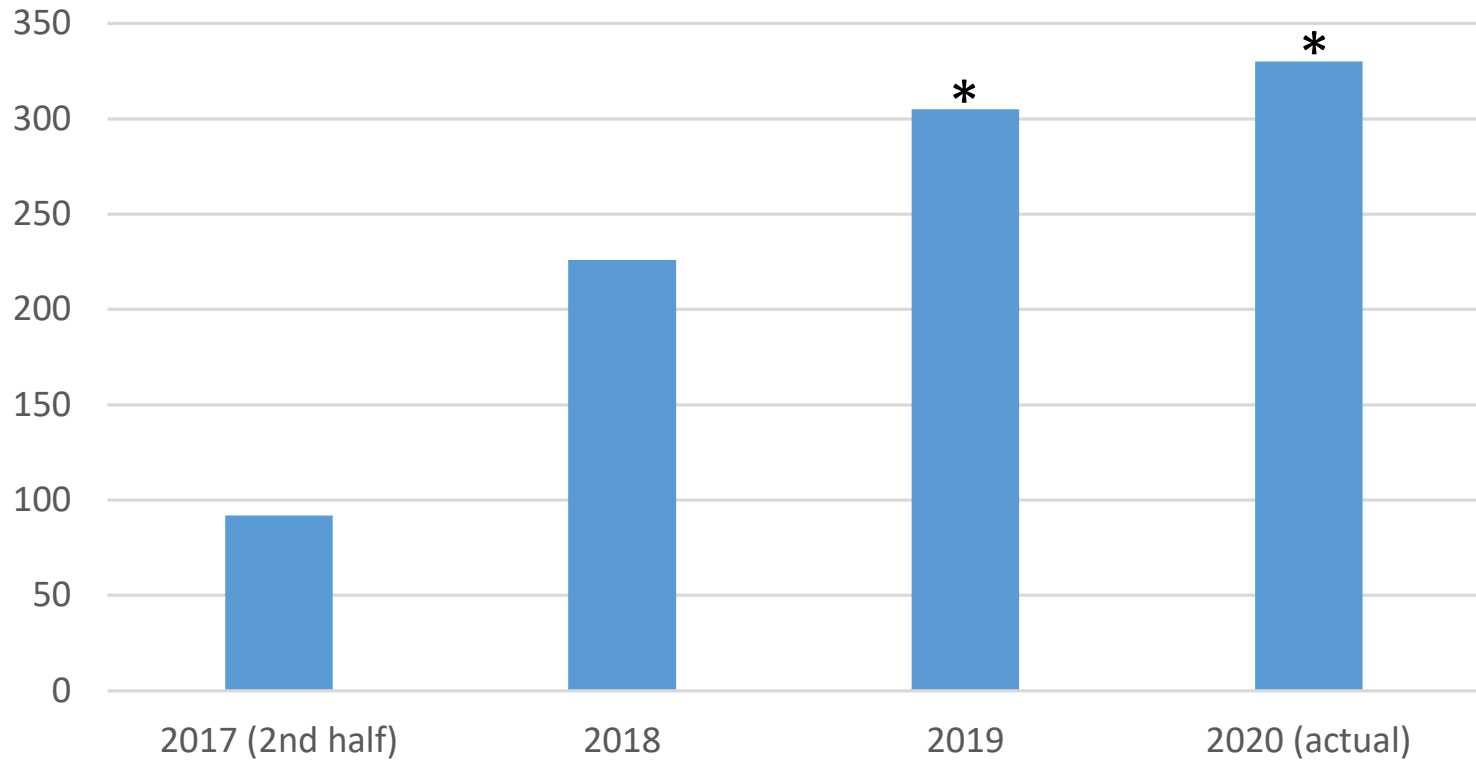
Jeffrey D. Spitler

January 11, 2021

Best paper award

- 10/1: Associate Editors requested to nominate best papers.
- 6 nominations received; JDS nominated 4 additional.
- 11/23 Jury formed: Culp, Owen, Bernier, Toftum
- Jury members ranked the papers; an overall ranking was created.
- 12/18 Jury met and reached a decision.
- 12/23 Recommendation sent to Rhiannon Masterson

Submissions



* 2019 forward are from ScholarOne; 2017 & 2018 come from T&F.

2020

- 330 submissions
- JDS rejected 106 papers
 - Common reasons:
 - Out of scope
 - Case studies
- 108 rejections by recommendation of Associate Editors.
- 105 papers published
- 8 Editorials published

2020 Special Issues

- ASIM 2018
- Flammable Refrigerant Safety
- IAQVEC 2019

2020 Editorial Board Meetings

- First online meetings in July.
- Two meetings to accommodate both hemispheres.
- First meetings with > 90% participation.
- Accomplishments:
 - Two editorials.
 - Reviewer Board launched.
 - Special issues started.

2020 Editorials

- JDS:
 - Introduction & thankyou to Reinhard
 - Reviewing for STBE
 - Addressing the Building Energy Gap with Measurements
- Toward a user-centered built environment (Agee, O'Brien, Day, Brackley)
- Integrating IAQ control strategies to reduce the risk of asymptomatic SARS CoV-2 infections in classrooms and open plan offices (Zhang)
6657 views; 3 references, Altmetric score 200

Misconduct allegation (2)

- Complaint that paper published in a special issue had largely redone the same work as previously reported in an STBE paper.
- Mostly correct.
- Mitigating factor: Authors of paper 2 recommended an author of paper 1 as a reviewer.
- Paper 2 did have some new (different) work; opinion of significance varies.
- Paper 2 received reasonably thorough reviews, though no one flagged the similarities.
- Resolution: Paper 2 was revised to show relationship to Paper 1 more clearly.
- Authors of Paper 1 were satisfied with the outcome.
- Thanks to Alexa and Jørn Toftum

Associate Editors

- Two Associate Editors with terms expiring this year +1 who might prefer to be replaced:
 - Richard De Dear (I will ask to stay on)
 - Chandra Sekhar (I will check to see if he wishes to stay on.)
 - Roberto Lamberts (Stayed on as a favor, but I think would prefer to be replaced.)

Reviewer Board

- Concept:
 - Recruit members from junior and mid-level faculty, recent PhD graduates.
 - Commitment to review ~4 papers per year in a timely fashion (2 weeks or less).
- Current status:
 - Invited 53 members
 - 38 accepted preliminary invitation
 - These 38 are now on masthead and AEs have details.
 - 9 additional members have just been added.

Reviewer Board

Name	Affiliation		Name	Affiliation
Ahmad Abbas	GIK Institute of Engineering Sciences and Technology, Topi, KPK, Pakistan		Akram Abdul Hamid	Division of Building Physics, Lund University, Lund, Sweden
Philip R. Agee, Ph.D	Virginia Tech, Blacksburg, VA, USA		Maomao Hu	Department of Engineering Science, University of Oxford, Oxford, UK
Maria Alberdi-Pagola	CP Test A/S		Ongun Berk Kazanci	International Centre for Indoor Environment and Energy, Department of Civil Engineering, Technical University of Denmark, Kgs. Lyngby, Denmark
Vikrant C. Aute	University of Maryland, College Park, Maryland, USA		Jae-Weon Jeong	Professor of Department of Architectural Engineering, Hanyang University, Seoul, South Korea
Christian K. Bach	Oklahoma State University, Stillwater, Oklahoma, USA		Michael G. Kent	Berkeley Education Alliance for Research in Singapore, Singapore
Cao Bin	Tsinghua University, Beijing, China		Meng Kong	Syracuse University, Syracuse, NY, USA
Mariya P. Bivolarova	Technical University of Denmark, Kgs. Lyngby, Denmark		Hoseong Lee	Korea University, Seoul, Korea
Craig R. Bradshaw	Oklahoma State University, Stillwater, Oklahoma, USA		Hangxin Li	The Hong Kong Polytechnic University, Kowloon, Hong Kong SAR
Jayson Bursill	Carleton University, Ottawa, Ontario, Canada		Fang Liu	Shandong Jianzhu University, Jinan, Shangdong, China
Jie Cai	University of Oklahoma, Norman, Oklahoma, USA		Xiaobing Liu	Oak Ridge National Laboratory, Oak Ridge, TN, USA
Shanshan Cai	Huazhong University of Science and Technology, Wuhan, Hubei, China		Matt S. Mitchell	National Renewable Energy Laboratory, Golden, CO
Yimin Chen	Lawrence Berkeley National Laboratory, Berkeley, CA, USA		Mohamed Ouf	Concordia University, Montreal, Quebec, Canada
Massimo Cimmino	Polytechnique Montréal, Montréal, QC, Canada		Jingjing Pei	Tianjin University, Tianjin, China
Moshood O. Fadeyi	Singapore Institute of Technology, Singapore		Long T. Phan	Florida International University, Miami, Florida, USA
Cheng FAN	College of Civil and Transportation Engineering, Shenzhen University, China		Mohammad Reza Safaei	Civil and Environmental Engineering Department, Florida International University, Miami, FL, USA
Jamie P. Fine	University of Toronto, Toronto, Ontario, Canada		Omer Sarfraz	Johnson Controls, York, Pa, USA
Victor Fransson	Division of Building Services, Department of Building- and Environmental Technology, Faculty of Engineering, Lund University, Sweden		Jialei Shen	Syracuse University, Syracuse, NY, USA
Brian M. Fronk	Oregon State University, Corvallis, Oregon, USA		Andrew Sommers, PhD, Assoc	Department of Mechanical and Manufacturing Engineering, Miami University, Oxford, Ohio, USA
Yangyang Fu	Texas A&M University, College Station, Texas, USA		Rui Tang	Lawrence Berkeley National Laboratory, Berkeley, CA, USA
Wenjie Gang	Huazhong University of Science and Technology		Despoina Teli	Division of Building Services Engineering, Department of Architecture and Civil Engineering, Chalmers University, Gothenburg, Sweden
Zhi Gao	Ph.D, Associate Professor, School of Architecture and Urban Planning, Nanjing University, Nanjing, China		Marianne F. Touchie	University of Toronto, Toronto, Ontario, Canada
Hua Ge	Concordia University, Montreal, Canada		Adam D. Wills	National Research Council Canada, Ottawa, Ontario, Canada
Sara Gilani	Natural Resources Canada, Ottawa, Ontario, Canada		Dr. Xin Zhang	School of Architecture, Tsinghua University, Beijing, China
Burak Gunay	Carleton University, Ottawa, Ontario, Canada			

Special Issues – 2021 and beyond

- Thermal Science and Technology 2019: 8 papers published (January 2021)
- Clima 2019: 53 invited; 16 submitted; 4 rejected
- Building Simulation 2019: 8 in review; 1 accepted
- BPACS 2020: 15 invited; 1 submitted
- Field-measured Performance of Heating, Cooling and Ventilating Systems. (Last date for submissions 12/1/2021)

It's possible one or two of these will come to fruition in 2021.

General Plans

- Arranging two Editorial Board meetings.
- Pandemic is going to delay or eliminate some opportunities for special issues based on conferences.
 - Will ask the Editorial Board to help identify non-conference-based topical issues.

Needs attention

- Assigning Open Access status



**PEC – Professional Development Subcommittee
Meeting of Friday, January 22, 2021**

In Attendance

Members: Chandra Sekhar, Chair, Larry Fisher, Donald Brandt, Ashley Weekly, Kurt Monteiro, Jeremy Smith, Keith Reihl, James Vallort, Mark Owen

Guests: Karen Murray, Bill Dean, Tim Kline, William Stuart, Eric Yang

Motions

None.

Information Items

Certification Committee Report was given by Ashley Weekly, Chair (*Attachment A*)

1. Certification Committee completed its annual, ANSI required, Management System Review of the effectiveness needed improvements for certification services. All seven ASHRAE certifications are ANSI-accredited.
2. Remote online proctored certification examination launched fall 2020 for a safe, secure and convenience. In December, over 80% of examinees took advantage of this new service.
3. The Certification Study Guide: Certified HVAC Designer (CHD) launched in October 2020 and has sold 113 copies. The guide features a 100-question CHD practice exam and links to other resources in ASHRAE publications and training for additional information.

Mr. Brandt asked if a study guide will be developed for all certification programs and Mr. Owen explained that this was the first and depending on interest and budget more will be developed. Ms. Weekly also stated that with limited funds it was important to evaluate the need for a guide for some certification programs that are not performing as well.

An Action Item was assigned to Mr. Kline to send a copy of the Certified HVAC Designer Study Guide to Mr. Brandt and Mr. Dean. (ACTION ITEM 1)

Mr. Sekhar suggested developing a list of TEC courses that relate to each certification. Mr. Kline informed the subcommittee that currently the certification page lists courses that relate to job task understanding for each certification.

Ms. Weekly stated likewise a communication process should be developed to inform TEC participants of certifications that relate to a course they just completed.

Mr. Sekhar suggested developing a map for all ASHRAE products to include Certification, training and publications. Mr. Smith explained that this would be a very large project and suggested a key word list as an option. Mr. Kline will investigate if ASHRAE has a current key word list or the possibility of developing one. (ACTION ITEM 2)

Mr. Owen reported that a "Pathway Initiative" may be in the works for Mr. Schwedler's presidential year.

4. Certification Digital Badging has been very successful with over 900 badges claimed, over 500 shares to LinkedIn and over 10,000 badge views in all media.
5. In December, the Certification Committee partnered with Region XII to deliver a Live Certification Tech Talk featuring need-to-know information for prospects and employers. Region XII Members will receive a 20% application discount through March 31. Regions interested in Co-Hosting a similar Certification Tech Talk should contact Tim Kline at tkline@ashrae.org for details.

Mr. Kline reported to the subcommittee that presentation was to promote the value of Certification and to explain the process of achieving a certification. Mr. Reihl suggested contacting ASHRAE DRCs as this type of presentation might be valuable at CRC meetings.

Mr. Kline also reported that no one has applied with the offered 20% to date.

6. Through December 31, 2020, there were 330 recertification applications received, versus 279 total in 2019.

Training & Education Committee (TEC) Report was given by Jeremy Smith (*Attachment B*)

7. The committee approved a motion from Members Council "That Society expand the eLearning Corporate training program to be used by ASHRAE chapters beginning January 2021." A program already exists for chapters to purchase eLearning courses at a discounted rate.
8. Comparison of 2020-21 to 2019-20 ALI course registrations is listed on the TEC report.
9. Online ALI HVAC Design training began in December 2020, and Online HVAC Design training presented through the Global Training Center begins in late January 2021. The GTC training is tailored to the Middle East, Northern Africa and parts of Asia. The training costs are lower, and prices are available for developing economies. Procedures are in place to guide registrants to the appropriate training based on their general location.
10. Work to review and revise select Self Directed Learning (SDL) courses continues including the development of slides to accompany courses.

Mr. Owen reported that funding availability is a constraint due, in part, to the loss of income from cancellation of the Winter Conference resulting the freezing of some programs and projects.

Mr. Vallort commented that the process should be standardized like the Standards updating schedule. At the request of Mr. Fisher, the course updating schedule will be included with the subcommittees report to PEC. (ACTION ITEM 3)

11. ASHRAE Learning Institute is working with the Epidemic Task Force to develop and deliver courses focused on the most up-to-date SARS CoV-2 findings. Ms. Murray explained to the subcommittee that new course development has been brisk with interest from NYSERDA and other outside groups.

The following SARS Cov-2 related courses are offered early in the 2021 Online Course Series beginning in late January:

- **NEW!** COVID-19 and Buildings: Re-Occupation After Lockdown
 - **NEW!** Reopening Commercial Buildings: Evaluating Your HVAC Systems' Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Health Impacts of Indoor Air Extraction, Ventilation and Filtration - Same or Different?
 - **Updated!** Hospital HVAC: Infection Mitigation, Comfort, Performance
 - **NEW!** Evaluating Your HVAC System's Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Fundamentals of Ultraviolet Germicidal Irradiation (UVGI) for Air and Surface Disinfection
 - **NEW!** Reopening Universities: Managing HVAC Systems to Mitigate the Spread of SARS-CoV-2 (in the scheduling process)
12. eLearning has seen a substantial increase in subscription revenue and is on track to make the forecast for the 2020-2021 fiscal year. The cumulative subscription revenue for the fiscal year to date is 153.6K on a forecast of 315K (December Financials). Most of this revenue is from individual member and non-member subscriptions, with a few corporate subscriptions.
 13. eLearning is continuing its course updates to meet the demand. Seven courses have been updated with a goal of ten for the 2020-2021 Society Year. The priority is Fundamental Courses, which have proven to be the most popular with corporate customers.

Other Issues Discussed

Mr. Dean discussed with the subcommittee that they prioritize cross committee communication to coordinate product development and efficiency. Additionally, Mr. Dean asked if Certification Committee or TEC had experiences any bottlenecks with other councils or committees they would like to discuss.

Mr. Sekhar asked how TEC courses are chosen for development and Mr. Smith explained that after some interest has been shown then TCs or SSPCs are approached for proposals to develop a course. Mr. Sekhar also suggested more courses be developed for hands-on subjects, such as, equipment or instrument use or data collection, interpretation and analysis for IAQ.

Mr. Stuart suggested a need for better communication and coordination between TEC courses, ASHRAE Conference programs and TCs on subject matter related to each TC.

Respectfully submitted,
Chandra Sekhar, Professional Development Subcommittee Chair
January 21, 2021



**Certification Committee Report
to PEC - Professional Development Subcommittee
Meeting of January 20, 2021**

Motions

None.

Information Items:

1. Management System Review

An ANSI requirement, the Certification Committee completed its annual Management System Review, with resulting decisions and actions related both to the improvement of the effectiveness of the management system and to the improvement of certification services. All seven ASHRAE certifications are ANSI-accredited.

2. New! Exam Delivery Mode: [Remote Online Proctored](#)

Launched in the fall of 2020, remote online proctored certification examination is a safe, secure and convenient delivery mode which brings ASHRAE Certification to ASHRAE Members, wherever they live. In December, over 80% of examinees took advantage of this new service.

3. New! Publication: [Certification Study Guide: Certified HVAC Designer](#) (CHD)

Since its launch in October, through December 15 the Certification Study Guide: Certified HVAC Designer (CHD) (Member Price \$56) had sold 113 copies. Featuring a 100-question CHD practice exam, it is a must-have guide to study of HVAC design resources and key job tasks.

4. Marketing

A. Certification [Digital Badging](#)

Over 900 badges have been claimed, with over 500 shares to LinkedIn and over 10,000 badge views in all media. Rich meta-data and real-time, third-party verification.

Example:



B. NEW! Regions: Co-Host Certification “Tech Talk”

In December, the Certification Committee partnered with Region XII to deliver a Certification Tech Talk featuring need-to-know information for prospects and employers. Region XII Members will receive a 20% application discount through March 31.

Regions interested in Co-Hosting a similar Certification Tech Talk should contact Tim Kline at tkline@ashrae.org for details.

5. **Recertification Application**

Through December 31, 2020, 330 applications received, versus 279 total in 2019. The 2020 recertification class may renew through March 31, 2021.

Respectfully submitted,

Ashley Weekly, Certification Committee Chair
Jan. 21, 2021

Attachment A
 Certification Report to PEC- Professional Development SC

MBO Submission to Planning

Council:

PEC

Committee:

Certification / Chair Ashley Weekly, P.E., BEAP

MBO #	Description	Metric (how do we determine success?)	Initiative # (can be more than 1)	Goal # (can be more than 1)	Completion Date	Financial Assist Req'd?
1	Attain 80% recertification rate for the 2020 renewal class in non-DOE programs, exceeding the industry average of 76%.	If 80% recertification rate is attained.	4	2c	3/31/2021	No
2	Grow the number of certification applications by 10% over the 2019-20 total of 405, to a total of 445 applications.	If the number of certification applications increases 10%	4, 1	3a	6/30/2021	No
3	Achieve 300 sales of CHD Study Guide.	If the sale of 300 CHD Study Guides is achieved	4, 1	3a	6/30/2021	No
4	Achieve 90% digital badge acceptance rate.	If a 90% digital badge acceptance rate is achieved	4	2c	6/30/2021	No
5	Achieve 20% digital badge share to email.	If 20% of digital badges are shared to email	4	2c	6/30/2021	No
6	Monitor consistent recognition of certification designations of ASHRAE certificants after their names in ASHRAE print and electronic media wherever the P.E., P.Eng. and Ph.D. designations also appear.	If certification designations consistently are recognized in ASHRAE print and electronic media	4, 3	2a	6/30/2021	No
7	Manage certification programs against the ANSI/ISO/IEC 17024 accreditation standard.	If ASHRAE retains ANSI accreditation of its programs	4	2b	6/30/2021	No



**Training & Education Committee
Report to Professional Development Subcommittee,
Publishing and Education Council (PEC)**

ASHRAE 2021 Winter Conference – Virtual

Recommendations for Board Approval

None

Information Items

1. The committee approved a motion from Members Council “That Society expand the eLearning Corporate training program to be used by ASHRAE chapters beginning January 2021.” A program already exists for chapters to purchase eLearning courses at a discounted rate.
2. Comparison of 2020-21 to 2019-20 ALI course registrations:

Year (Conference Locations)	Winter	Annual	Online	In-Company	Chapter	Industry	HVAC I	HVAC II	GTC	TOTAL*
2020-2021 (Virtual/Phoenix) To date Jan2021	Virtual		395**	891	300	1,008	123	30	1,488	4,235
2019-20 (Orlando/Virtual)	1,138	Virtual	752***	665	200	42	312	250	597	3,956

*Total does not include eLearning or SDL registrants.

** An additional 2,584 individuals registered for free online webinars.

*** An additional 6,909 individuals registered for free online webinars.

3. Online ALI HVAC Design training began in December 2020, and Online HVAC Design training presented through the Global Training Center begins in late January 2021. Though the credit hours for the trainings are the same, the participant prices differ based on the local economy. The GTC training is tailored to the Middle East, Northern Africa and parts of Asia. The training costs are lower, and prices are available for developing economies. Procedures are in place to guide registrants to the appropriate training based on their general location.
4. Work to review and revise select Self Directed Learning (SDL) courses continues. Funding availability is a constraint.
5. ASHRAE Learning Institute is working with the Epidemic Task Force to develop and deliver courses focused on the most up-to-date CoV-2 findings. The following Cov-2 related courses are offered early in the 2021 Online Course Series beginning in late January:
 - **NEW!** COVID-19 and Buildings: Re-Occupation After Lockdown
 - **NEW!** Reopening Commercial Buildings: Evaluating Your HVAC Systems' Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Health Impacts of Indoor Air Extraction, Ventilation and Filtration - Same or Different?

- **Updated!** Hospital HVAC: Infection Mitigation, Comfort, Performance
 - **NEW!** Evaluating Your HVAC System's Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Fundamentals of Ultraviolet Germicidal Irradiation (UVGI) for Air and Surface Disinfection
 - **NEW!** Reopening Universities: Managing HVAC Systems to Mitigate the Spread of SARS-CoV-2 (in the scheduling process)
6. eLearning has seen a substantial increase in subscription revenue and is on track to make the forecast for the 2020-2021 fiscal year. The cumulative subscription revenue for the fiscal year to date is 153.6K on a forecast of 315K (December Financials). Most of this revenue is from individual member and non-member subscriptions, with a few corporate subscriptions.
 7. eLearning is continuing its course updates to meet the demand of interactive learning experience in the marketplace. The priority is Fundamental Courses, which have proven to be the most popular with corporate customers. For the Society Year 2020-2021, the goal is to update a total of 10 courses. So far, 7 courses have been updated.
 8. Professional Development Committee 2020-2021 MBOs are included as Attachment A.

Respectfully submitted,
Jeremy Smith, Training & Education Committee Chair
January 21, 2021

Training & Education Committee
MBOs for Society Year 2020-21
Chair: Jeremy Smith Date: December 1, 2020

Objective	SP	Complete by	Fiscal Impact	Responsible Party	Comment/ Status
1. Review new strategic plan for items that apply to TEC and develop a plan to implement 2 ideas from the review. Implement 1 idea in the fall and 1 in the spring.			None	Planning Subcommittee	Review started
2. Develop topics and RFPs for an additional (3) practical applications courses			None	Planning Subcommittee	In progress
3. Review SDLs and issue RFPs for the ones that need updating on prescribed schedule			None	Operations Subcommittee	36 mos. post issuance
4. Review existing courses and sunset those that have not been used in 5 years or recommend updates			None	Operations Subcommittee	Continuous
5. Every course reviewed by TEC Liaison prior to presentation– Quality check			None	Operations Subcommittee	Continuous – 1-2 months prior to meetings
6. Develop marketing plan for TEC courses/branding. Work with ASHRAE marketing to understand and improve			TBD	Planning Subcommittee	Continuous – 1 conf. call early fall and 1 conf. call early spring
7. Develop Financial Model for course evaluation				Operations Subcommittee	Draft by Nov 30 Final by April 30
Additional Recommendations for Strategic Planning: Not at this time					



**PEC - Products Subcommittee Report
to PEC - Fiscal Subcommittee
Meeting of Thursday, January 21, 2021**

In Attendance

Members: Randy Schrecengost; Products Subcommittee Chair, Cynthia Callaway, Mark Fly, Michael Patton, Hugh McMillan, Adeeba Mehboob, Dean Borges, Spencer Morasch, Ahmed Alaa Eldin Mohamed Kelley Cramm, Mark Owen

Guests: Bill Dean; PEC Chair, Cindy Michaels, Kimberly Gates, David Soltis, Heather Kennedy

Motions

None.

Information Items

Handbook Committee (HBC) Report was given by Mr. Patton. *(Attachment A)*

1. An Ad-hoc was appointed to investigate reorganizing the chapters in the volume to balance out the page counts.
2. Anthony Young gave a presentation from TC 9.8 on a new chapter proposal for Airport Terminals. The committee will review and reply within a month.
3. HBC discussed ideas to encourage HB Online updates included obtaining funds for gift cards to primary authors.

Historical Committee Report was given by Mr. Borges. *(Attachment B)*

4. Historical Committee heard an update on the progress of all projects for 125th anniversary. All projects have been completed with one cancelled due to the cancellation of the in-person conference.
5. Historical Committee have chosen Shelia Hayter and Barney Buroughs for the next two Leadership Voices interviews to be filmed at the next in-person meeting.
6. Historical Committee reviewed a report on the status of PAOE points. *(Attachment A of the Historical Committee Report)*
7. Historical Committee members Glenn Remington and Bern Nagengast were assigned to work reinstituting the Historians Newsletter.

8. Historical Committee discussed communicating with a professional archivist to help organize what ASHRAE material should be archived and the idea of a “Finding Aid System” to assist user of an ASHRAE Archive.
9. Historical Committee suggested that Basecamp be investigated as a potential storage solution for electronic documents and files with the possibility of a template or structure being created for that specific use.
10. Historical Committee reviewed their MBOs for updates shown in *Attachment B of the Historical Committee Report*.

Publications Committee Report was given by Mr. McMillan. (*Attachment C*)

11. Publications Committee members voted to select the winner for the 2020 Journal Paper Award, the title and authors of which Sarah Foster has forwarded to the Honors and Awards Committee for award presentation at the 2021 ASHRAE Annual Conference.
12. Updates on the Publications Committee MBOs for the 2020-2021 Society year are included in *Attachment A of the Publications Communications Report*.
13. A Publications Committee subcommittee drafted survey questions regarding Presidential Member Tim Wentz’s idea for a series of Application Guides, and a survey was sent to all ASHRAE members in December 2020. Results of the survey are detailed in *Attachment B of the Publications Communications Report* and the detailed results are located on Basecamp. Mr. McMillan encouraged everyone to review the survey questions and take the survey. Ms. Mehboob mentioned that some survey respondents suggested that Apps and videos be developed to work with the Application Guides.

Research Journal Subcommittee Report was given by Ms. Cramm. (*Attachment D*)

14. Ms. Cramm briefly explained the main difference between *STBE* and the ASHRAE Journal was that papers that were too long and or technical for the ASHRAE Journal or ASHRAE Transactions needed a publication home so *Science and Technology for the Built Environment (STBE)* as created. Mr. Owen has an action item to develop some additional promotion of *STBE* which could include a reminder that ASHRAE Members have free access to *STBE* papers through the ASHRAE website.
15. The Taylor & Francis Publisher’s Report shown in *Attachment A of the Research Journal Subcommittee Report* included the following items:
 - STBE published 129 articles in 2019, 10 of which were Open Access.
 - There were 49,095 STBE article downloads in 2020 YTD; 65% higher than 2019 YTD.
 - The 2019 Impact Factor is 1.356, ranking 42/63 in the Construction & Building Technology JCR category.
 - The journal’s 2019 CiteScore is 2.6, ranking 32/83 in the Fluid Flow and Transfer Processes Scopus category.
16. Mr. Owen points out that the improvement of the Impact Factor of *STBE* has been a long-term effort by the editor and the publisher and represents an accomplishment worth highlighting.

17. Dr. Spitler gave the Editor's Report shown in *Attachment B of the Research Journal Subcommittee Report STBE* received 330 submissions in the last year, publishing 105 papers and 8 editorials. Ms. Cramm also noted for the subcommittee that the most common reasons for rejection of a paper were that it was either out of scope or that it needed more case studies cited.

Other Issues Discussed

18. Mr. Dean asked the Products Subcommittee to consider helping Publishing and Education products get to market a priority by helping to remove any bottlenecks and by improving communications between ASHRAE groups. The subcommittee discussed a few examples of this issue.

Mr. Borges, Historical Committee Chair, mentioned that ASHRAE videographer on staff has left ASHRAE and there is no plan to replace her.

Mr. McMillan, Publications Committee Chair, discussed the need to update, the very popular HVAC Simplified, which is being used as a textbook but references out of date ASHRAE Standards. The cognizant Technical Committee was TC7.1 but has been moved to TC 9.1 which has not responded to the Publications Committee. Publications Committee has informed the TAC Chair. Ms. Cramm is a member of TC 9.1 and assured Mr. McMillan that HVAC Simplified is on their agenda but they need to discuss the possible need for an academic to participate in an update of a textbook.

19. Mr. Dean also wanted the Products Subcommittee to facilitate any issues with communication between groups. The subcommittee discussed a few examples of this issue.

Mr. McMillan reported that Publications Committee usually communicates directly with TCs on any needs, issues or concerns.

Mr. Borges stated he would like a more formal process for Historical Committee to communicate with Regional and Chapter Historians involved in history at the Society level. Ms. Calloway suggested asking the staff liaison for the Communications Committee, Joslyn Radcliff, for assistance in setting up mail groups with ASHRAE email aliases and Basecamp as a straightforward and simplified way of communicating.

Mr. Morasch informed the subcommittee that he is a member of the Streamline Committee and they are tasked with assisting communication between ASHRAE groups. Anyone can email him directly with their issues or concerns and he will take them directly to that committee.

Respectfully submitted,

Randy Schrecengost, PEC – Products Subcommittee Chair
January 21, 2021



Handbook Committee Report To PEC - Products Subcommittee

Motions

None.

Information Items

1. Subcommittees
 - a. Review/Training (Furman) reported about the online TC training which was well attended
 - b. Electronic (Fisher) report highlighted the Basecamp opportunity and demonstrated and reviewed the file structure to date
 - c. Functional (Sheinman) reported that the ARG, ROB and MOP are up to date and have received all approvals.
 - d. The absence of Abushakra prevented a Strategic Planning report
2. Volume reports
 - a. No issues were highlighted in any of the volume reports.
 - b. Fisher (2022 Refrigeration) indicated that progress on the volume has not been impacted by Covid-19 due to the stability of the content
 - c. Heather indicated that 2021 (Fundamentals) galleys are in progress but some are delayed due to late submissions and Staff reductions.
3. General
 - a. Discussion was held about reorganizing the chapters in the volume to balance out the page counts. (Action Item 1) **Patton to appoint an Ad-hoc to solidify ideas.**
 - b. Presentation by Anthony Young from TC 9.8 on a new chapter proposal for Airport Terminals. The committee will review and reply within a month. (Action Item 2) **Patton/Kennedy to set full committee meeting to discuss and vote.**
 - c. Ideas for encouraging HB Online updates included obtaining funds for gift cards to primary authors. (Action Item 3) **Kennedy to investigate obtaining funds or budget.**
 - d. Patton suggested adding a 2 times per year virtual meeting spaced before and after the Winter Meeting to coordinate volume activities. The MOP will be updated as required to add this additional meeting requirement. (Action Item 4) **Patton/Sheinman to review MOP for new 2.4.3.(d) adding this to Volume Chairs responsibilities.**
4. MBOs were reviewed and updated and shown in *Attachment A*.

Respectfully submitted,
Michael P. Patton, Handbook Committee Chair
January 21, 2021

Attachment A
Handbook Committee Report to PEC - Products Subcommittee

MBO Submission to Planning

Council:

PEC
 Handbook Submitted by

Committee:

M Patton HBC Chair

MBO #	Description	Metric	Initiative #	Goal #	Completion Date	Financial Assist Req'd?
		(how do we determine success?)	(can be more than 1)	(can be more than 1)		
1	Solicit ideas for PEC MBO 1&2	Included in HBC Report to PEC	1&2	1	Jan 1 2021	PEC to Evaluate
2	Address Volume imbalances, Fundamentals and Applications getting large and shipping costs increasing			2	June 30 2021	No
3	Develop a TC reward recognition system for HB Online content	Increase interim cycle revisions		3	June 30 2021	Yes
4	Solve Author Portal browser problem as this is hampering adoption of the tool	COMPLETE		1a	Sep-20	Complete
5	Work with TAC to promote HB activities at the TC Chairs general meeting Either Virtual or when Conferences resume	Getting on the TAC agenda		1b	Jan 1 2021	No
6	Require Vol Chairs to hold virtual Liason meetings to discuss volume progress at least 2x per yr. outside conference meetings.	Vol Chair Reports		1b	Jan 1 2021	Assistance from staff may be required
7	Work with TAC to monitor TC restructuring (if any) as it occurs. Any TC reorg greatly impacts HBC and Liaison assignments	Ongoing		3a	June 30 2021	No
8 (NEW)	Review ARG for clarity on material to be included in the HB volumes vs that set for other publications (deign Guides, Users manuals)	Revisions to ARG		2	June 30 2021	No



Historical Committee
Report to PEC - Products Subcommittee
Meeting of January 15, 2021

Action Items

1. None.

Information Items

1. Historical Committee heard an update on the progress of all projects for 125th anniversary. All projects have been completed with one cancelled due to the cancellation of the in-person conference.
2. Historical Committee discussed the pilot plaque project which will be installed in Orange, Texas.
3. Historical Committee have chosen Shelia Hayter and Barney Buroughs for the next two Leadership Voices interviews to be filmed at the next in-person meeting.
4. Historical Committee discussed the necessity of continuity of communication, to keep Regional and Chapter Historians involved in history at the Society level.
5. Historical Committee reviewed a report on the status of PAOE points. (*Attachment A*)
6. Historical Committee discussed reinstituting the Historians Newsletter. Glenn Remington and Bern Nagengast were assigned to work on this and report to the committee at their next meeting.
7. Historical Committee discussed communicating with a professional archivist to help organize what ASHRAE material should be archived and the idea of a "Finding Aid System" to assist user of an ASHRAE Archive.
8. Historical Committee suggested that Basecamp be investigated as a potential storage solution for electronic documents and files with the possibility of a template or structure being created for that specific use.
9. Historical Committee reviewed their MBOs for updates shown in *Attachment B*

Respectfully submitted,
Dean Borges, Historical Committee Chair

HISTORY CHAIR PAOE SUMMARY REPORT

Winter VIRTUAL MEETING 2020-2021

Regions	Total History PAOE	Chapters @ "0" PAOE	Chapters @ MIN	Chapters @ PAR
I	2795	2	13	0
II	2025	2	7	5
III	250	9	2	0
IV	200	6	1	0
V	300	11	1	1
VI	50	9	0	0
VII	3250	5	8	4
VIII	2850	4	10	5
IX	1525	7	6	1
X	3100	0	14	0
XI	300	10	1	1
XII	1075	11	4	2
XIII	1750	0	10	1
XIV	0	9	0	0
Region- At-Large	12725	1	30	18

Grand Total 32195

Top 10 in PAOE for History	Region	PAOE Pts
1	RAL	12725
2	7	3250
3	10	3100
4	8	2850
5	1	2795
6	2	2025
7	13	1750
8	9	1525
9	12	1075
10	5	300

Top 10 CHAPTERS	Top 10 History PAOE
LOUISVILLE	1400
TURKISH	1375
BAHRAIN	1250
ASHRAE BANGALORE	1200
NORTHERN NEVADA	950
QATAR ORYX	850
ASHRAE MUMBAI	650
AUSTIN	625
ASHRAE DECCAN	550
INDIA	550

1. Each Regional Historian to reach out to Chapter Historians/Presidents with ZERO PAOE History points and help them get to Minimum PAOE of 100.
2. Each Regional Historian to reach out to Chapter Historians/Presidents with less than 300 PAR PAOE points and encourage them to get PAR.

REGION I

2020-2021 Presidential Award of Excellence

***Minimum and PAR points indicated are for 2020-2021**

[illegible]

REGION II

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE pointTotals
13	QUEBEC	163	0	500	400	0	0	700	0	100	850	2550
14	MONTREAL	534	300	700	1350	0	100	650	650	450	975	5175
15	OTTAWA VALLEY	411	250	395	800	0	100	60	1100	0	950	3655
16	TORONTO	1079	275	835	1250	0	550	70	0	300	1625	4905
37	HAMILTON	281	300	825	450	0	830	1440	2300	0	1225	7370
100	HALIFAX	193	0	435	150	0	250	10	0	0	850	1695
116	LONDON (CANADA)	127	300	250	300	0	645	0	0	0	850	2345
117	NB/PEI	150	300	300	200	0	540	0	0	0	500	1840
141	WINDSOR	63	300	600	200	0	430	1275	300	750	850	4705

Total PAOE 2025
Avg PAOE 225

2020-2021 Presidential Award of Excellence

[illegible]

REGION IV

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE pointTotals
29	NORTH PIEDMONT	189	0	25	400	0	200	170	300	0	825	1920
30	SOUTHERN PIEDMONT	371	0	275	50	0	0	80	0	0	1075	1480
31	SOUTH CAROLINA	141	0	150	50	0	0	0	200	0	675	1075
32	ATLANTA	988	200	450	350	0	710	635	400	350	1225	4320
97	GREENVILLE	187	0	125	100	0	0	20	0	0	300	545
106	TRIANGLE	472	0	690	2295	0	130	60	400	0	1425	5000
113	CHARLESTON	144	0	175	0	0	0	130	0	0	900	1205

Total PAOE 200

Avg PAOE 29

REGION V

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

[illegible]

2020-2021 Presidential Award of Excellence

Total PAOE	50
Avg. PAOE	5

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE pointTotals
48	WISCONSIN	337	50	125	25	0	150	1095	100	650	875	3070
49	ILLINOIS	1198	0	485	700	0	410	885	400	0	1175	4055
50	CENTRAL ILLINOIS	132	0	0	150	0	150	455	0	0	300	1055
51	IOWA	312	0	125	250	0	0	520	0	0	850	1745
52	MINNESOTA	846	50	160	525	0	460	1180	0	0	1250	3625
54	ST LOUIS	652	0	175	450	0	0	630	100	0	675	2030
95	MADISON	255	0	125	250	0	0	100	0	0	550	1025
107	NORTHEAST WISCONSIN	152	0	150	50	0	0	20	0	0	650	870
115	LA CROSSE AREA	127	0	175	100	0	0	65	950	0	1250	2540
123	MISSISSIPPI VALLEY	100	0	125	100	0	0	0	0	0	650	875
159	CEDAR VALLEY	81	0	125	0	0	0	20	0	0	550	695

REGION VII

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communication s: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
55	LOUISVILLE	191	1400	225	50	0	100	675	2650	50	725	5875
56	MEMPHIS	169	200	125	70	0	0	170	200	0	850	1615
57	BIRMINGHAM	249	0	375	225	0	630	1515	1400	0	950	5095
58	MOBILE	47	0	0	0	0	0	160	0	0	750	910
59	NEW ORLEANS	121	350	125	0	0	640	620	550	50	700	3035
60	BATON ROUGE	91	100	25	0	0	0	200	300	0	550	1175
61	MISSISSIPPI	89	250	10	0	0	0	100	400	0	575	1335
88	NASHVILLE	317	300	350	0	0	810	560	200	0	675	2895
99	EAST TENNESSEE	219	0	100	200	0	100	310	100	0	700	1510
114	TENNESSEE VALLEY	86	0	25	50	0	250	160	700	0	450	1635
128	BLUEGRASS	111	250	25	50	0	400	300	200	0	750	1975
130	NORTHWEST FLORIDA	58	0	25	0	0	0	150	0	0	100	275
133	NORTH ALABAMA	60	100	100	0	0	250	100	0	0	100	650
192	WEST VIRGINIA	79	300	650	725	0	590	850	400	800	1000	5315

Total PAOE 3250

Avg. PAOE 232

REGION VIII

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
62	ARKANSAS	234	300	230	600	0	945	2720	3039	50	975	8859
64	HOUSTON	729	350	310	1516	0	400	1265	400	500	825	5566
65	ALAMO	231	100	25	300	0	0	10	400	0	775	1610
66	AUSTIN	367	625	210	525	0	0	315	0	0	1100	2775
67	DALLAS	724	100	500	519	0	406	980	650	0	1000	4155
68	CENTRAL OKLAHOMA	279	475	405	845	0	200	1840	700	300	950	5715
69	NORTHEASTERN OKLAHOMA	188	100	185	200	0	620	70	1200	0	600	2975
70	FORT WORTH	296	375	175	450	0	0	80	820	100	900	2900
71	WEST TEXAS	80	0	100	100	0	0	0	0	0	450	650
91	EAST TEXAS	115	100	300	100	0	0	85	0	0	750	1335
154	SOUTH TEXAS	60	0	0	325	0	0	60	0	0	275	660
165	MEXICO CITY	102	0	250	395	0	160	310	200	700	475	2490
166	MONTERREY	130	225	455	325	0	0	0	400	0	825	2230
173	GUADALAJARA	26	0	0	0	0	0	50	0	0	0	50
208	NORTHWEST ARKANSAS	129	100	125	420	0	100	250	200	50	800	2045

PAOE Total 2850
Avg. PAOE 190

2020-2021 Presidential Award of Excellence

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
53	KANSAS CITY	628	250	310	600	0	0	685	1000	600	925	4370
72	EL PASO	51	0	150	0	0	0	10	0	0	50	210
73	ROCKY MOUNTAIN	942	0	585	450	0	0	360	0	350	1025	2770
74	UTAH	318	200	200	50	0	0	2240	300	350	1275	4615
75	NEBRASKA	376	225	250	525	0	710	2765	1600	400	1250	7725
76	WICHITA	134	0	50	100	0	150	0	0	0	600	900
77	NEW MEXICO	156	200	175	0	0	0	30	0	350	500	1255
93	SOUTH DAKOTA	126	450	350	100	0	0	520	0	350	400	2170
127	BLACK HILLS	48	0	50	50	0	0	0	0	0	100	200
131	BIG SKY	121	200	75	150	0	250	160	450	0	650	1935
135	IDAHO	166	0	110	50	0	0	10	0	350	550	1070
148	PIKES PEAK	117	0	185	0	0	0	435	0	350	800	1770
150	OZARKS	75	0	80	0	0	0	0	0	250	350	680

Total PAOE	1525
Avg. PAOE	117

REGION X

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
81	SACRAMENTO VALLEY	282	150	75	200	0	50	40	500	0	1025	2040
82	GOLDEN GATE	866	150	310	350	0	200	560	450	600	1025	3645
83	SAN JOAQUIN	115	150	25	150	0	0	70	0	100	550	1045
84	SOUTHERN CALIFORNIA	664	150	385	450	0	0	160	500	100	1025	2770
85	SAN DIEGO	356	150	260	250	0	150	160	1200	200	925	3295
86	CENTRAL ARIZONA	439	150	310	480	0	0	50	200	100	1625	2915
87	TUCSON	94	250	25	300	0	0	150	500	100	700	2025
92	SOUTHERN NEVADA	144	150	225	772	0	600	720	0	300	725	3492
101	SAN JOSE	322	250	345	550	0	100	425	950	100	1375	4095
105	ORANGE EMPIRE	392	150	300	300	0	0	50	200	0	1175	2175
108	HAWAII	251	150	510	150	0	70	870	1550	100	900	4300
126	NORTHERN NEVADA	101	950	0	200	0	0	20	0	0	550	1720
144	SIERRA DELTA	46	150	320	100	0	0	400	200	150	250	1570
155	TRI COUNTY	76	150	125	150	0	0	10	0	0	100	535

Total PAOE 3100
Avg. PAOE 221

2020-2021 Presidential Award of Excellence

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications : Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
17	MANITOBA	177	0	125	150	0	150	260	0	0	700	1385
18	SOUTHERN ALBERTA	278	0	225	150	0	0	60	0	0	550	985
19	NORTHERN ALBERTA	273	0	150	300	0	0	60	0	0	550	1060
20	BRITISH COLUMBIA	542	300	375	500	0	400	1330	950	250	775	4880
78	INLAND EMPIRE	149	0	75	0	0	0	30	0	0	700	805
79	PUGET SOUND	788	0	500	200	0	0	160	0	0	950	1810
80	OREGON	608	0	620	1400	0	1450	690	1000	850	1650	7660
96	REGINA	98	0	0	400	0	0	20	0	50	550	1020
102	SASKATOON	108	0	85	250	0	0	10	0	0	100	445
122	ALASKA	195	0	225	200	0	0	70	0	0	650	1145
145	VANCOUVER ISLAND	101	0	100	285	0	0	20	0	0	450	855

Total PAOE	300
Avg. PAOE	27

REGION XII

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE pointTotals
34	JACKSONVILLE	244	0	515	150	0	0	60	0	0	675	1400
35	FLORIDA WEST COAST	412	0	370	250	0	275	630	750	100	1025	3400
36	MIAMI	213	0	160	150	0	0	0	200	0	500	1010
94	CENTRAL FLORIDA	340	150	380	300	0	1020	545	1670	350	800	5215
104	GOLD COAST	197	0	200	100	0	0	50	100	0	500	950
110	PUERTO RICO	86	0	100	100	0	0	0	200	0	100	500
139	SOUTHWEST FLORIDA	127	0	75	250	0	0	270	1150	400	200	2345
172	BRASIL	182	150	160	1302	0	520	1560	600	650	1375	6317
178	ARGENTINA	132	0	75	745	0	1170	1425	400	500	1625	5940
190	COLOMBIA	66	300	0	500	0	0	1065	150	150	550	2715
196	CHILE	60	50	25	300	0	250	300	1000	0	450	2375
199	ECUADOR	41	0	45	275	0	0	0	100	0	600	1020
202	PARAGUAY	46	425	5	200	0	150	630	650	350	450	2860
209	ASHRAE CARICOM	75	0	200	650	0	0	20	600	300	1600	3370
213	SOUTH BRAZIL	65	0	485	1325	0	410	525	1750	100	1975	6570
220	Peru	106	0	115	50	0	0	200	100	0	775	1240

Total PAOE 1075
Avg. PAOE 67

REGION XIII

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
142	SINGAPORE	341	150	605	350	0	1040	930	1750	550	725	6100
143	HONG KONG	757	150	950	1100	0	150	50	2150	350	1800	6700
149	MALAYSIA	218	450	570	835	0	250	1425	1800	1050	1375	7755
157	TAIWAN	117	150	805	675	0	1950	2420	300	1600	500	8400
167	PHILIPPINES	181	150	500	100	0	100	60	300	300	675	2185
170	THAILAND	96	150	125	50	0	0	20	1100	300	350	2095
183	INDONESIA	108	100	150	50	0	0	450	300	350	1425	2825
194	JAPAN	210	150	100	100	0	0	90	300	150	400	1290
195	SOUTH KOREA	86	150	125	50	0	0	10	0	150	150	635
198	MACAO	90	150	750	0	0	570	0	300	1750	1050	4570

Total PAOE 1750
Avg. PAOE 175

REGION XIV

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOEpointTotals
168	HELLENIC	129	0	100	450	0	0	0	0	0	650	1200
176	DANUBE	110	0	200	100	0	0	0	0	0	650	950
177	PORTUGAL	75	0	110	150	0	0	0	0	0	400	660
182	SPAIN	166	0	1110	100	0	0	30	0	0	300	1540
203	CYPRUS	39	0	60	0	0	0	10	0	0	0	70
204	IRELAND	105	0	185	100	0	0	20	0	0	850	1155
205	UK MIDLANDS	116	0	150	300	0	0	10	100	0	975	1535
206	UK LONDON and SOUTH-EAST	275	0	130	50	0	0	30	0	0	350	560
214	ISRAELI	74	0	425	0	0	0	20	0	0	300	745

Total PAOE 0
Avg. PAOE 0

REGION-AT-LARGE

2020-2021 Presidential Award of Excellence

*Minimum and PAR points indicated are for 2020-2021

Chapter code	Chapter name	Chapter AAM	Historical: Minimum 100; PAR 300	Membership Promotion: Minimum 500; PAR 800	Student Activities: Minimum 300; PAR 800	RP: Minimum 800; PAR 1050	Communications: Minimum 250; PAR 600	Chapter Operations: Minimum 600; PAR 1200	Chapter Technology Transfer: Minimum 550; PAR 1050	Government Affairs : Minimum 500; PAR 650	Young Engineers in ASHRAE: Minimum 300; PAR 800	ChapterPAOE ointTotals
158	INDIA	217	550	125	1475	0	200	110	750	150	925	4285
160	SAUDI ARABIA	181	100	135	50	0	0	210	300	0	1025	1820
161	CAIRO	103	200	280	300	0	0	0	0	0	1550	2330
162	LEBANESE	106	200	0	0	0	0	20	0	0	250	470
163	WESTERN INDIA	91	350	0	580	0	430	755	200	0	650	2965
164	KUWAIT	51	100	75	200	0	0	10	0	0	775	1160
169	ASHRAE BANGALORE	88	1200	100	355	0	0	0	400	150	1075	3280
171	SRI LANKAN	91	350	75	200	0	0	0	0	0	550	1175
174	PAKISTAN	89	350	10	50	0	0	10	0	0	575	995
175	ASHRAE FALCON	460	300	135	300	0	0	50	0	0	675	1460
179	NORTHERN PAKISTAN	55	200	125	400	0	0	0	400	0	500	1625
181	BAHRAIN	49	1250	505	320	0	500	395	700	0	1725	5395
184	QATAR ORYX	157	850	135	0	0	0	10	0	0	475	1470
185	CHENNAI	82	100	150	0	0	0	0	0	0	575	825
186	PUNE	101	300	580	0	0	0	10	900	0	1300	3090
187	ASHRAE NIGERIA	135	150	595	200	0	0	1200	850	0	1175	4170
188	ASHRAE MUMBAI	125	650	365	150	0	400	1945	200	200	550	4460
189	CENTRAL PAKISTAN	62	200	50	50	0	100	325	400	50	600	1775
191	ASHRAE DECCAN	61	550	25	875	0	380	1075	800	0	350	4055
193	TURKISH	100	1375	325	1350	0	700	1060	950	50	775	6585
197	BANGLADESH	45	400	50	0	0	0	0	0	0	600	1050
207	SOUTH AFRICA	156	350	615	0	0	490	1050	0	1150	500	4155
210	FAISALABAD	32	100	0	0	0	0	0	0	0	550	650
211	PYRAMIDS	75	750	225	0	0	0	10	0	600	975	2560
212	JORDAN	49	100	50	0	0	0	0	0	0	150	300
215	EAST INDIA	52	300	50	0	0	0	0	0	0	775	1125
216	RAJASTHAN	54	900	180	250	0	1250	2550	2310	300	350	8090
217	CHANDIGARH	73	300	60	800	0	0	0	0	0	900	2060
218	OMAN	43	100	50	0	0	0	10	150	0	400	710
219	LIBYA	40	100	0	0	0	0	0	0	0	100	200
221	Sudan	50	0	10	0	0	0	0	0	0	300	310

Total PAOE 12725

1/11/2021

PAOE for History	Region	PAOE Pts
1	RAL	12725
2	7	3250
3	10	3100
4	8	2850
5	1	2795
6	2	2025
7	13	1750
8	9	250
9	12	1075
10	5	300

Highest Chapters	PAOE History	Members	POINTS PER MEMBER
LOUISVILLE	1400	191	7.33
TURKISH	1375	100	13.75
BAHRAIN	1250	49	25.51
ASHRAE BANGALORE	1200	88	13.64
NORTHERN NEVADA	950	101	9.41
QATAR ORYX	850	157	5.41
ASHRAE MUMBAI	650	125	5.20
AUSTIN	625	367	1.70
ASHRAE DECCAN	550	61	9.02
INDIA	550	217	2.53
MALAYSIA	450	218	2.06
SOUTH DAKOTA	450	126	3.57

Historical Committee 2020-2021 MBOs –Dean Borges Chair						
Objective	PR	Comp. Date	Fiscal Impact	Respon.	Status	Comment
1. Develop proposals to improve the opportunities for Regional Historians to participate in Historical Committee activities.	1	Winter 2021 Chicago	None	RVC Guideline subcom	Ongoing	Continue on-line participation of (RVCs) at Committee meetings.
2. Develop PAOE Recommended Changes to 2021- 2022 PAOE	1	2021 Chicago	None		Complete	To get ahead of the PAOE Committee Cycle with proposal for the following year's PAOE Letter in Summer 2021
3. History VC PAOE Update Summary Report at Annual & Winter Meetings to include copy to 2019-2020 Annual meeting	1	Winter & Annual	None	VC Report	Complete	To encourage RVCs to target the below PAR performing Chapters in their Region based on the previous year's History PAOE Summary.
4. Encourage Chapter Historians who don't attend their Regional CRC to complete the Chapter Historians Training Power Point & promote on-line workshop participation at CRCs	1	Winter 2021	Minor	RVC Guideline subcom	Complete	Update the Chapter Historians Training PowerPoint. Add points for submittal of a completed MBO with phone discussion with RVC History prior August 30 of fiscal year. Promote on-line workshop participation at CRCs
5. Foster collaboration with other international societies to improve our historical research and support history-related activities of the Society	4	Summer 2021	None	Historical Committee	Ongoing	Continue work on collaboration. HC has links with similar groups in CIBSE & AiCARR - opportunity to pursue to work w/similar committees in CEN, International Institute of Ammonia Refrigeration (IIAR), International Institute of Refrigeration (IIR), & Global Cold Chain Alliance (GCCA).
6. Encourage younger members of ASHRAE to have interest in history-related activities of the Society	2	Summer 2021	None	Historical Committee	Complete	Proposing to keep the PAOE line item "For a local Chapter Historical activity performed by an actively engaged YEA member"
7. Leadership Recall Arrange for videos at Annual meeting 2021	2	Summer 2021	Verify \$1,000 Budget	Historical Committee	Ongoing	Arrange 2 Presidential interviews. Review other potential interviewees
8. Digitize Archived Journals & Transactions	3	Summer 2021	Major	Historical Committee/ PEC	Ongoing	Encourage digitalization of all Society Journals & Transactions
Jun 27–July 1, 2020 Austin, Tx						June 26-30, 2021, Phoenix, AZ



Shaping Tomorrow's
Built Environment Today

Publications Committee Report to
the Products Subcommittee of the Publishing and Education Council
Thursday, January 21, 2020, 12:30-2:00 p.m.

Action Items for PEC

(None)

Information Items

1. Publications Committee members voted to select the winner for the 2020 Journal Paper Award, the title and authors of which Sarah Foster has forwarded to the Honors and Awards Committee for award presentation at the 2021 ASHRAE Annual Conference.
2. Updates on the Publications Committee MBOs for the 2020-2021 Society year are included in *Attachment A*.
3. A Publications Committee subcommittee drafted survey questions regarding Presidential Member Tim Wentz's idea for a series of Application Guides, and a survey was sent to all ASHRAE members in December 2020. Results of the survey are detailed in *Attachment B*.

Respectfully submitted,

Hugh D. McMillan III, Chair
Publications Committee
19 January 2021

Publications Committee

MBOs for Society Year 2020-2021

Chair: Hugh D. McMillan III Date: 15 January 2020

Objective	SP 2019-2024*	Compl. by	Fiscal Impact	Resp. Party	Comment/Status
Reduce conference calls to bimonthly	3-3	July 2020	None	McMillan	Streamline committee operation by optimizing quantity of meetings. Discuss ASHRAE Journal Articles by exception only, meaning only if there is something exceptional to discuss about a particular article. <i>Completed</i>
Reorganize Planning Subcommittee	3-2, 3-3	January 2021	None	Mehboob	Planning Subcommittee to meet for 1 hour on Saturday of Winter and Annual meetings. May need to conduct some business between face-to-face meetings. Remainder of time Saturday will be dedicated to PTAR Subcommittee. <i>Completed</i>
Apply Evaluation Rating Sheet rubric to all existing special publications	3-1	June 2021	None	TAC Section Liaisons/Staff	Each TAC Section Liaison should apply the recently approved Special Publications Evaluation Rating Sheet for the TCs to which they are the liaison. This will require input from staff on some items of the rubric.
Institutionalize PTAR Subcommittee operations	3-2, 3-3	June 2021	None	Thrasher	Review and edit as necessary the PTAR Process and Forms and insert any required description in the MOP. <i>Unable to complete at present; waiting on RAC regarding final PTAR process.</i>
Mentors reach out to new members	3-2, 3-3	September 1, 2020	None	Tisdale, Murthy	Ask if any questions; review new member orientation PowerPoint if desired by new member. <i>Completed</i>
Additional Recommendations for Strategic Planning:					

*SP 2019-2024 = 2019-2024 Strategic Plan Initiative

Strategic Plan Notes:

Initiative 3: Organizational Streamlining

- Desired Outcome 1 (3-1 above): Evaluate the staff/volunteer support structure to optimize volunteer engagement, efficiency and effectiveness of the Society (e.g. volunteer efficiency). Present and implement findings to support the delivery of key products and services (e.g. Guidelines, Standards, Research, Publications, and Programs) with less cost, reduced time to market and an advancement in market responsiveness.
- Desired Outcome 2 (3-2 above): Redesign leadership/governance structure to support increased operational efficiency and effectiveness of the organization.
- Desired Outcome 3 (3-3 above): Targeted streamlining for committee operational effectiveness through the reduction of overlap and optimization of quantity, scopes.

**Application Guides –
Member Survey Sub Committee Report**
ASHRAE Publications Committee

Committee Members:

Adeeba Mehboob : Chair
Vikram Murthy : Member
Eduardo Donoso : Member
Cindy Michaels : Staff

Acknowledgement:

ASHRAE Marketing Department

Date: Jan 14, 2021

1.0 Background:

Presidential Member, Tim Wentz envisaged the idea of having ASHRAE publish 'Application guides' on various HVAC topics that would "be written in simple, straightforward language for those entering the consulting engineering field."

The Application Guides Subcommittee was established to establish the feasibility of publishing such guides. The Subcommittee investigated the idea initially and In its report of May 15, 2020 proposed a market survey for establishing the perceived need, the publication medium (virtual or paper), the sellable price point for such guides for 'a market driven process'.

This Market Survey Subcommittee was thereafter tasked to formulate the survey questionnaire for establishing the market demand for such guides. The survey was sent out on the survey monkey platform on the 9th December 2020 by ASHRAE's Marketing department and responses collected over a two week period.

2.0 The Survey Questionnaire

The survey questionnaire was drafted by the committee and finalized based on comments and feedback from the Publications Committee and the TC's. **Attached as Annexure A.**

Though the intent was to reach out and follow up with the groups of people listed below, ASHRAE marketing did not have a way of sending separate sets of mails except to the entire membership.

- All ASHRAE Membership – YEA more importantly
- Employers who train their employees
- Student branch members
- University graduates and faculty

- ASHRAE Learning Institute
- AASA
- TC's

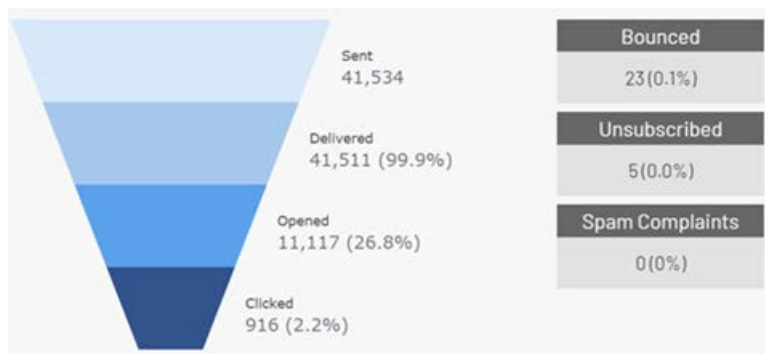
Survey Follow up through

- RVC YEAs to YEA Committees Chairs to their members
- DRC's to their Chapter Presidents to Industry
- RVC SA to SA Chairs to student members
- Refrigeration Chair

3.0 Survey Data

a. Total Number of Respondents

- There were **628 respondents**.



b. Response Times

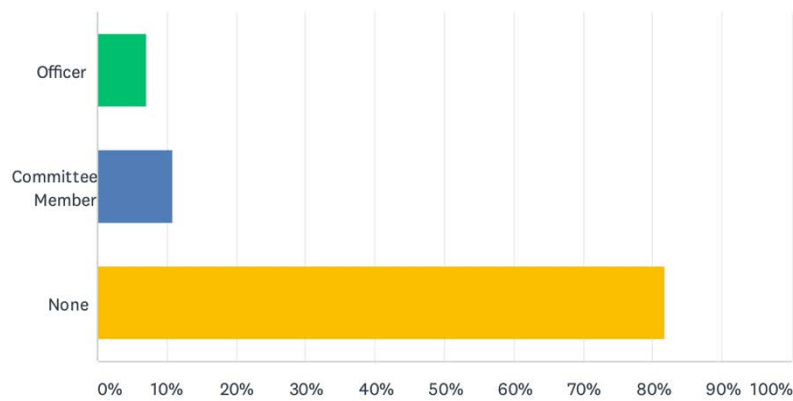
- 479 respondents in 24 hours.
- 133 over a week.
- 16 after one week.

c. Responses Chapter-wise

- Response received from 156 **Chapters** of 198 Total Chapters. **79%**
- Largest Response from **Non Chapter Members**, **10%** of respondents
- Chapters with Highest Responses
 - Illinois - 17
 - Atlanta - 15
 - Minnesota - 12
 - Rocky Mountain - 11
 - Houston-11
 - Sr. Louis -11
 - Toronto -11
 - Detroit - 10
- 151 Chapter members responded from **outside of USA and Canada**. **24%**.

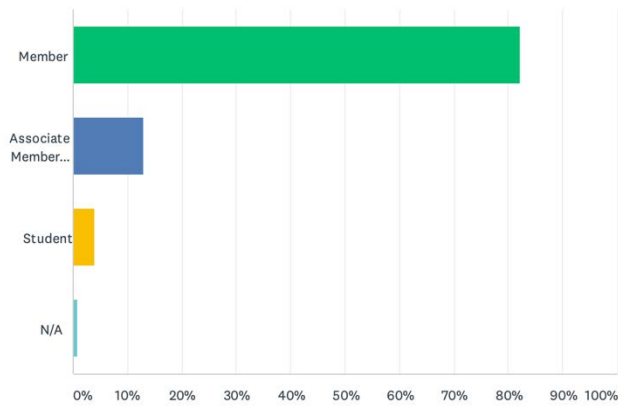
d. Respondents' Position In Chapter

- Majority respondents **hold no Chapter positions** currently.



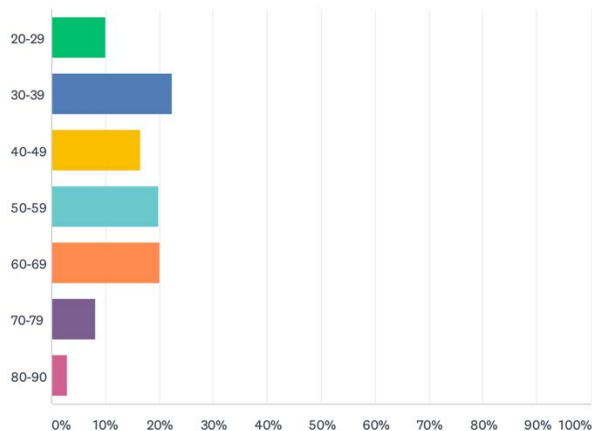
e. Respondents' Membership Status

- Majority respondents are **Full Members**.
- Only 25 students responded. (Need to confirm if Survey was sent to students? Unlikely)



f. Respondents' Age

- 207 Respondents under the age of 40 = 32% (YEA)
- 199 Respondents over the age of 60 = 31% (Senior)
- 232 Respondents between ages 40 to 60. = 37%



g. Respondents' Professions

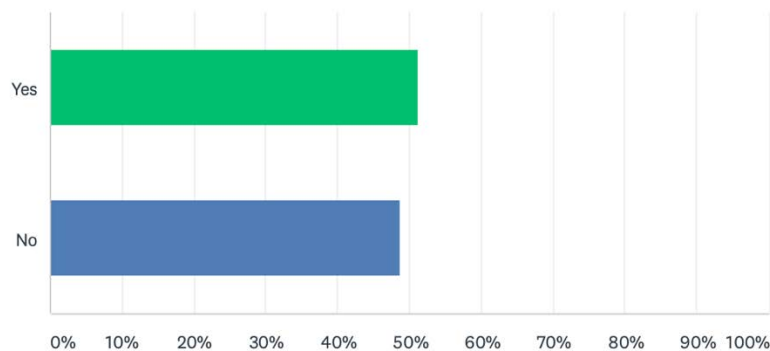
- 239 Respondents Consulting Engineers. 37%
- 60 Respondents Arch/Engineers. 9%
- 58 Respondents Manufacturers. 9%
- 56 Respondents Contractors. 9%
- 56 Respondents Gov/Health/Education. 9%

h. Respondents' Titles

- 340 Respondents identified as Engineers. 54%
- 204 Respondents identified as Executives. 33%

i. Have you owned or referred to HVACR Application Guides?

- 50% Respondents answered yes.

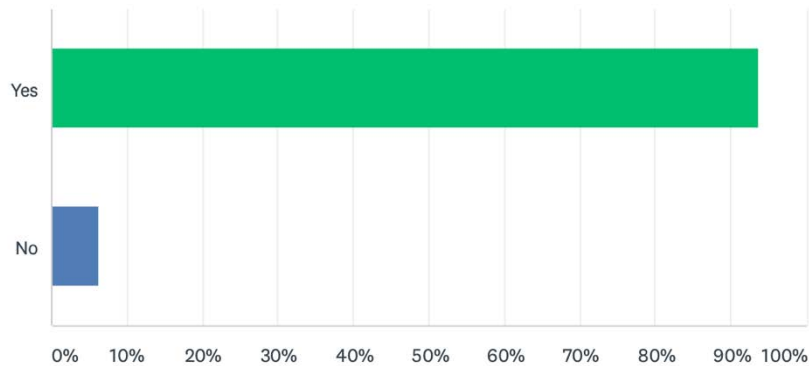


- 257 Respondents provided examples of HVACR Application Guides owned or referred to.
- 57 Respondents cited Manufacturer published Application guides like, Carrier, Trane, Price, Daikin, Mitsubishi etc.
- 20 Respondents cited guides from other organizations like CIBSE, ISHRAE, USGBC, RHEVA etc.

4.0 Survey Results

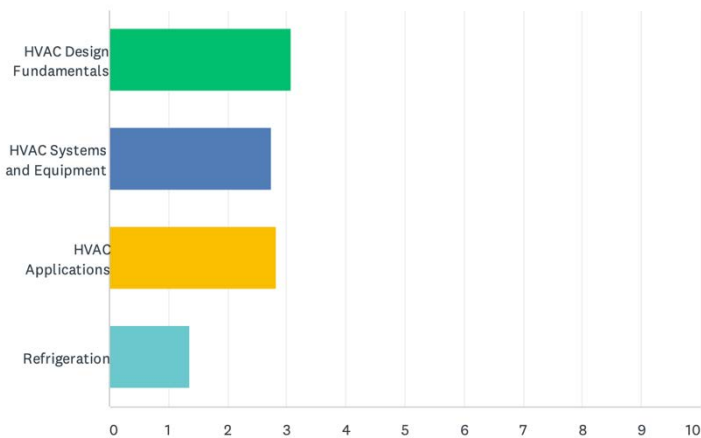
a. Interest in ASHRAE published Application Guides

- **598 respondents** showed interest in ASHRAE published Application guides.



b. Broad Subject Category Preference

- Equal Interest in all categories except Refrigeration. Likely because fewer people in from the Refrigeration industry responded?
- 427 Respondents.



c. Topic Preference

HVAC Design Fundamentals

- Cooling and heating Load
- Introduction to Air Conditioning Systems
- Air Conditioning Psychrometrics

HVAC Systems and Equipment

- Thermal Storage and Energy Recovery

- Variable Air Volume Systems
- Chiller Systems

HVAC Applications

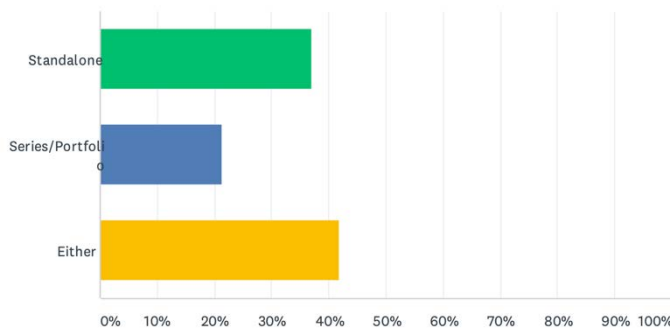
- HVAC Systems for Medical Facilities
- HVAC Systems for Data Centres
- HVAC Systems for Clean Rooms

Refrigeration

- Introduction to Refrigeration Systems
- Applications of Refrigeration Systems
- Line sizing for Commercial HVAC/R Systems

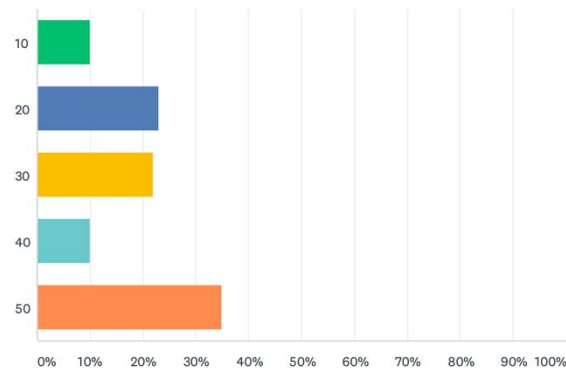
d. Preference for standalone or series/portfolio guides

- **No strong preference either way.**



e. Maximum expected pages of guide

- 149 Respondents, the majority, expect **50 pages**.
- 192 Respondents expect between **10-30 pages**.

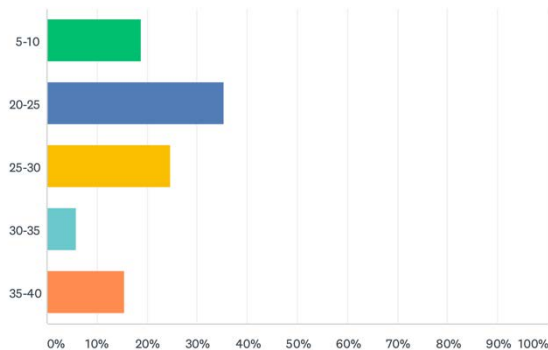


f. E book or Hard print

- 211 Respondents, the majority, expect **both**.
- Otherwise the preference is for an e book.

g. Maximum Selling Price

- 231 Respondents, the majority will pay **20 USD or lower**.
- 105 more Respondents are willing to pay upto 30 USD.



h. Reference Tools and Calculators and Videos

- The majority believe they will be a value addition.

i. Sample Comments

- Crowded Market, due to Manufacturers. Possible collaboration.
- ASHRAE will be a Neutral Party publication
- Look into Unaddressed Content.
- Dovetail with ASHRAE Handbooks
- High level, simple, not too academic
- Globalize

j. Authorship Volunteers

- 3 Volunteers for writing the guide and/or providing support.

k. Criticism

- 3 Respondents were unhappy with the proposed topics.

5.0 Way forward

- Are we happy with the number of respondents?
- Would we want more YEA responses?
- Are we happy with the survey?

- Initiate the Guides Portfolio Subcommittee
 - Decide on series or standalone concept
 - Decide on dovetailing handbook proposal – Contact Handbook Committee?
- Decide on the topic/s for publishing – based on survey results of selected topics or market void of proposed topics?
- Initiate the Authoring the Guides Subcommittee
 - Contact volunteers
 - Decide on reference tools and calculators and videos



**Research Journal Subcommittee
Report to Products Subcommittee of PEC
Meeting of Monday, January 11, 2021**

In Attendance

Members: Kelley Cramm, Birol Kılış, David Claridge, Jeffrey Spitler, Mark Owen
Guests: Stephanie Loeh, Cindy Michaels

Motions

None.

Information Items

1. Mr. Owen reviewed the financial statements with the subcommittee and took an action item to review future promotion plans with ASHRAE staff and the *Science and Technology for the Built Environment (STBE)* Journal's publisher Taylor & Francis. (*ACTION ITEM 1*)
2. Ms. Loeh, from Taylor & Francis, gave the Publisher's Report shown in *Attachment A* which including the following highlights:
 - STBE published 129 articles in 2019, 10 of which were Open Access.
 - There were 49,095 STBE article downloads in 2020 YTD; 65% higher than 2019 YTD.
 - 'Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP) by Omer Sarfraz & Christian K. Bach, was the most downloaded article with 2,236 downloads.
 - The top Altmetric-scoring article was 'Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)' by Mehdi Mehrabi & David Yuill, with a score of 10.
 - The top cited article was 'A review of fault detection and diagnostics methods for building systems' by Woohyun Kim, with 34 citations.
 - The 2019 Impact Factor is 1.356, ranking 42/63 in the Construction & Building Technology JCR category.
 - The journal's 2019 CiteScore is 2.6, ranking 32/83 in the Fluid Flow and Transfer Processes Scopus category.
3. Dr. Spitler gave the Editor's Report with information including that the journal received 330 submissions in the last year, publishing 105 papers and 8 editorials. (*Attachment B*)
4. Dr. Spitler reported that nominations for STBE Best Paper were requested and ranked by a jury (Culp, Owen, Bernier, Toftum). In December 2019 the jury's recommendation was sent the Honors and Awards Committee.

Respectfully submitted,
Kelley Cramm, Research Journal Subcommittee Chair
January 11, 2021

Attachment A
Research Journal Subcommittee Report to PEC - Products Subcommittee



Science and Technology for the Built Environment

Confidential Publishing Report

July 2020

Agenda

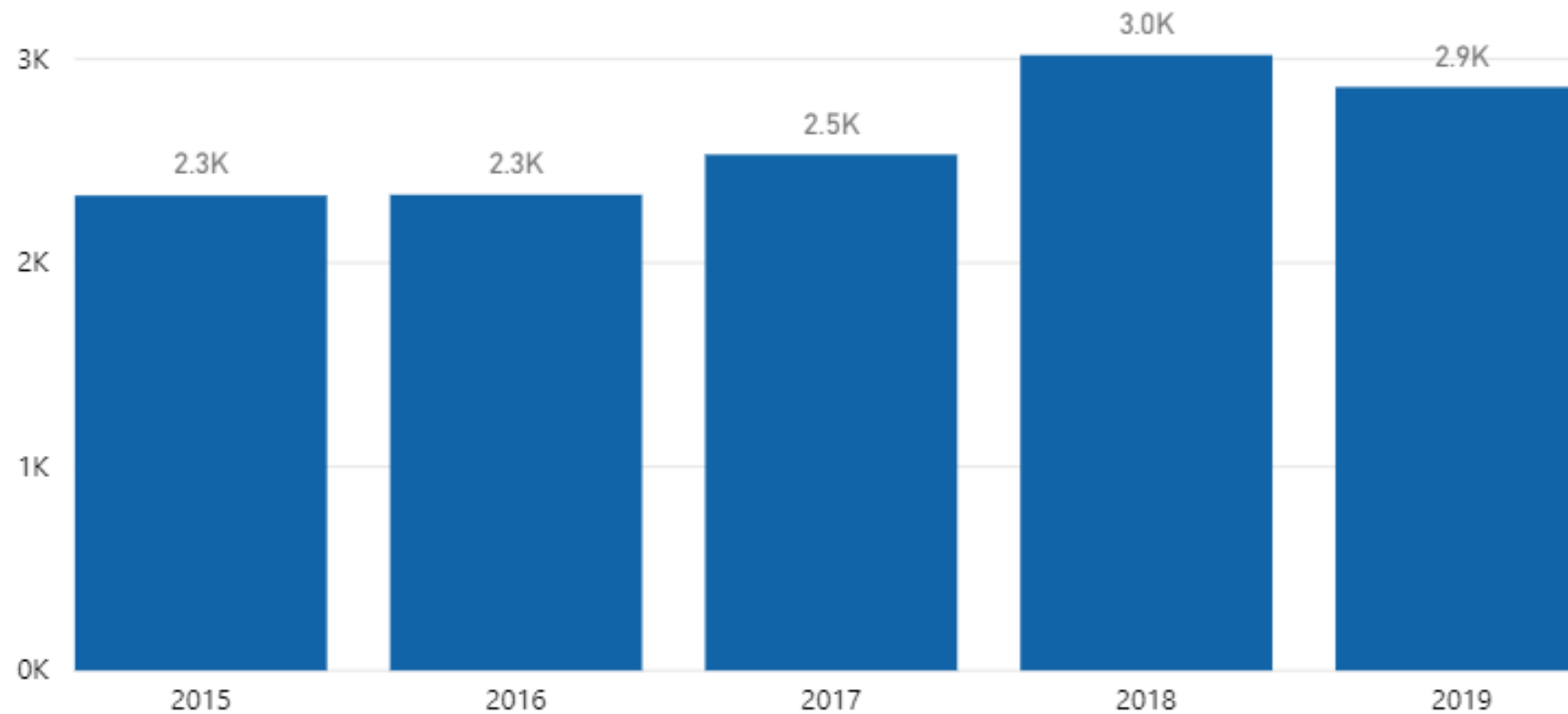
1. Global Reach
2. Altmetric Analysis
3. Citation Analysis
4. Marketing Report
5. Production Report
6. Author Survey
7. Resources
8. Journal Contacts

Highlights

- The Journal received **49,095** article downloads in 2020 YTD, which is **65%** higher than downloads received in 2019 YTD.
- The most downloaded article is '**Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP)**' by **Omer Sarfraz & Christian K. Bach**, with **2,236** downloads.
- The top Altmetric-scoring article was '**Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)**' by **Mehdi Mehrabi & David Yuill**, with a score of **10**.
- The top cited article was '**A review of fault detection and diagnostics methods for building systems**' by **Woohyun Kim**, with **34** citations.
- The journal's 2019 Impact Factor is **1.356**, ranking **42/63** in the **Construction & Building Technology** JCR category.
- The journal's 2019 CiteScore is **2.6**, ranking **32/83** in the **Fluid Flow and Transfer Processes** Scopus category.
- The Journal produced **129** publications in 2019, **10** of which were Open Access.

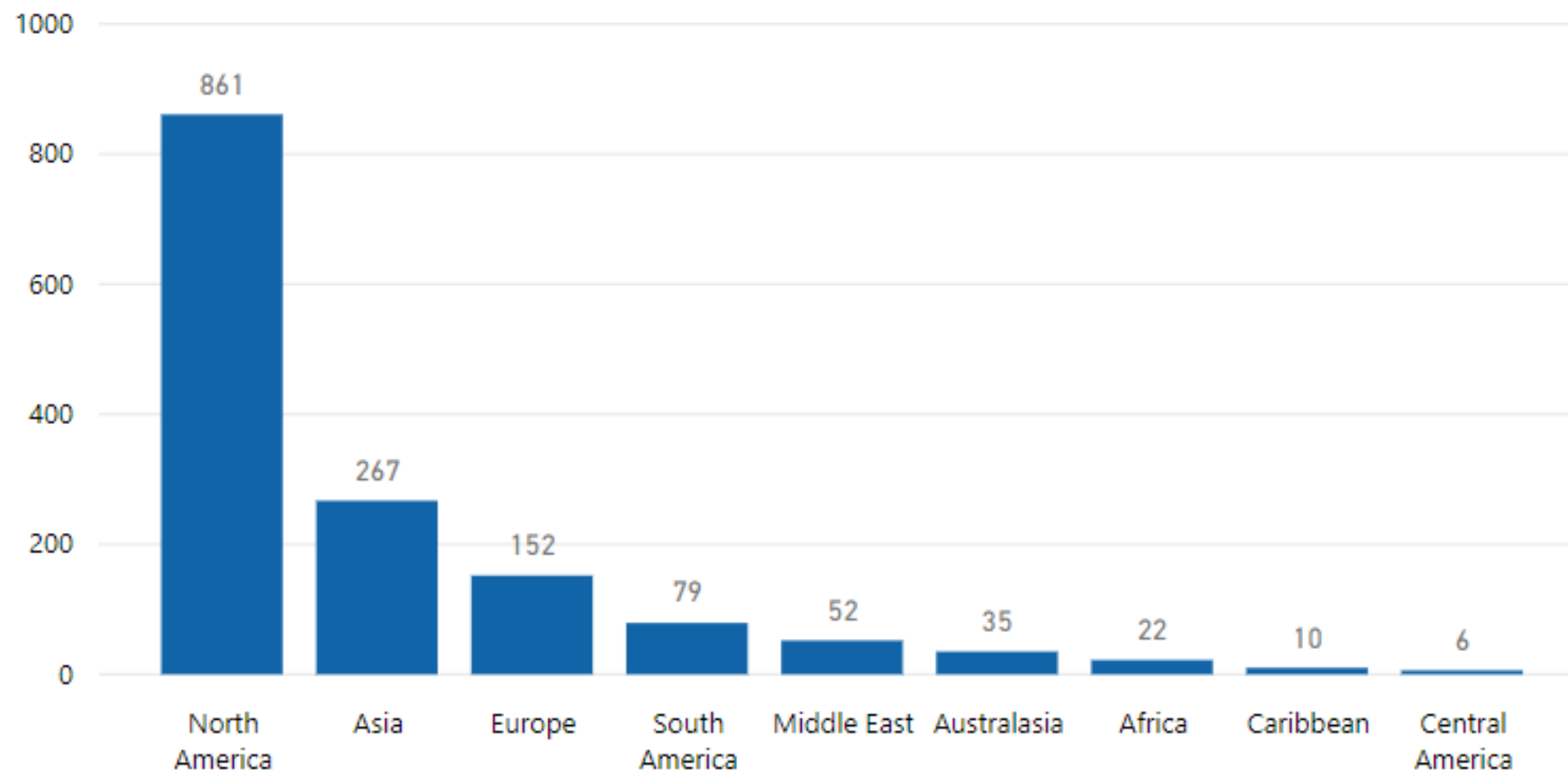
Global Reach – Circulation

Number of Institutions with access via Sales Deal, Subject and Non-Sales Deal Subscriptions

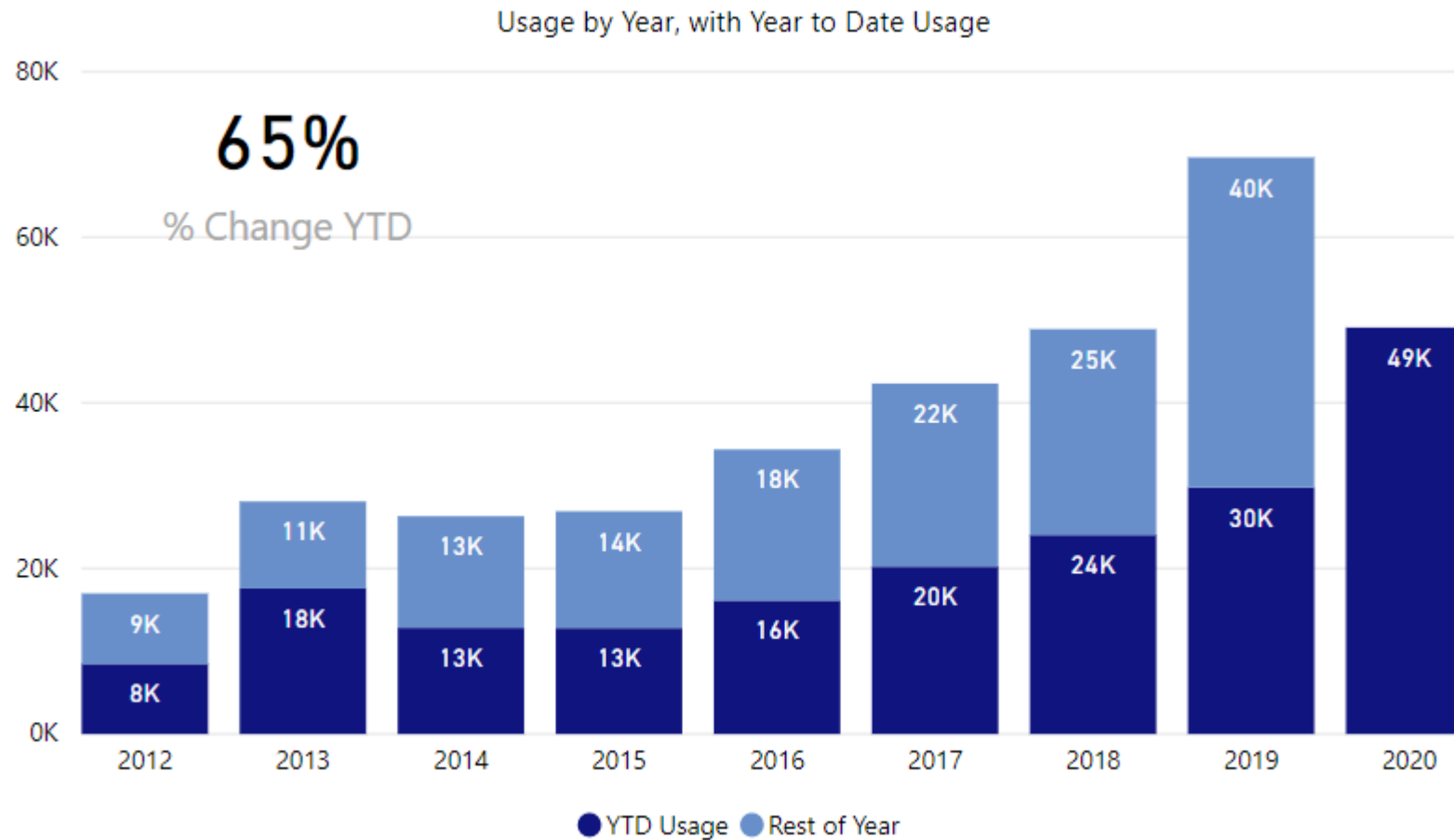


EBSCO Circulation (2019)

EBSCO Coverage 2019 by Region

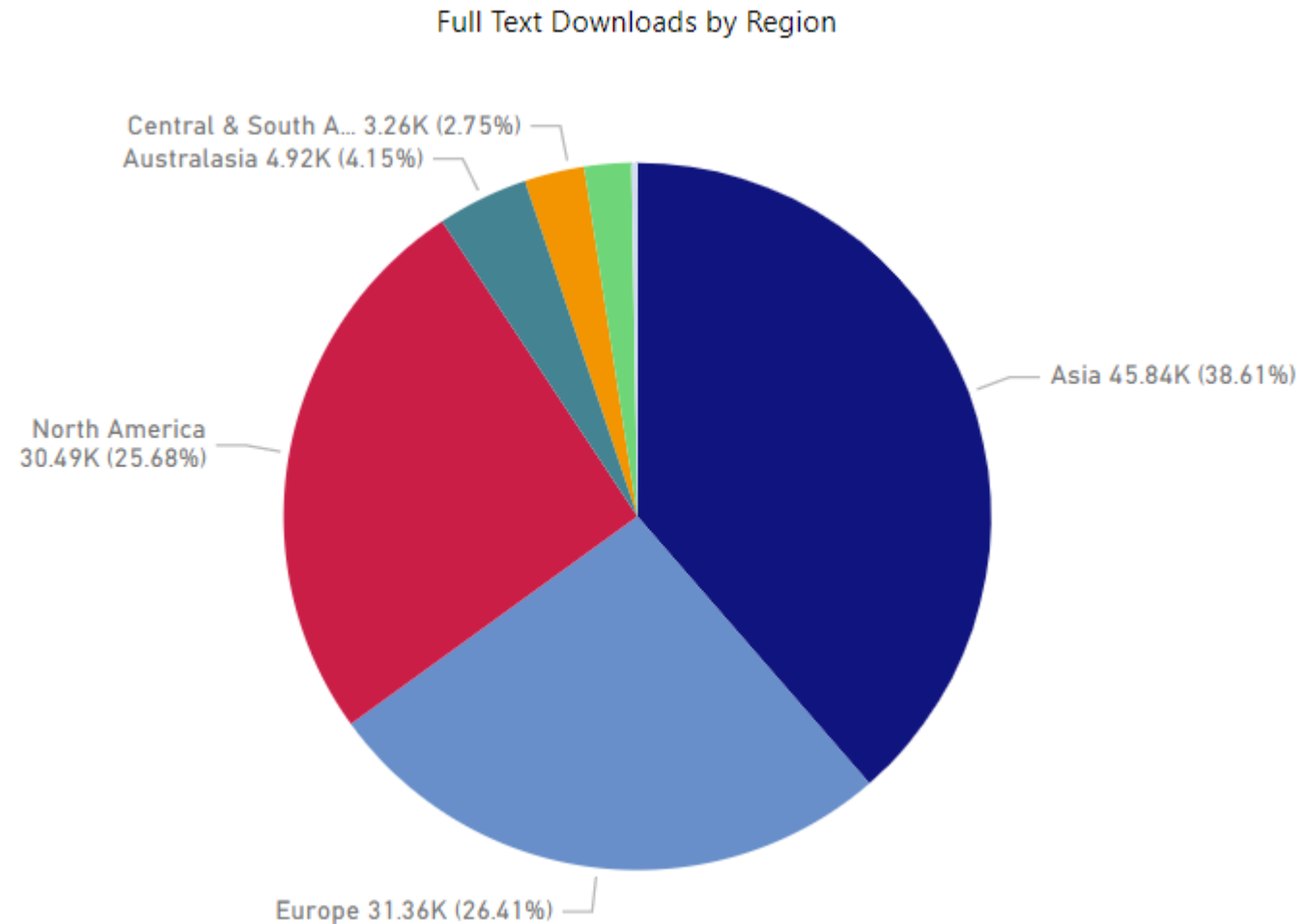


Article Downloads – Taylor & Francis Online (TFO) Usage



Percentage Change YTD is from 2019 YTD to 2020 YTD.

Article Downloads by Region (2019-2020 Year to Date)



Most Downloaded Articles in the Past 12 Months (from Past Three Volume Years)

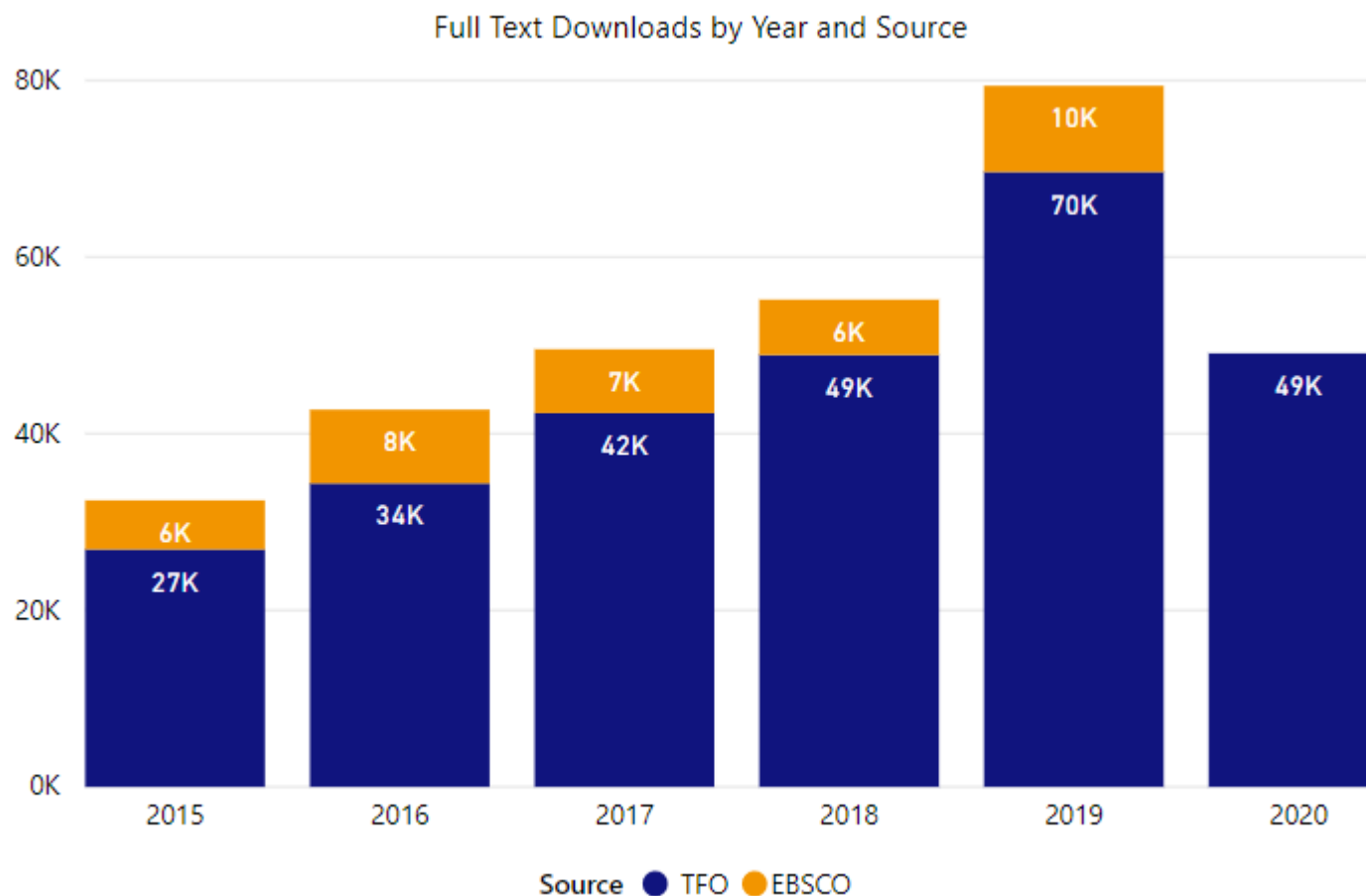
Article Title	Author	Volume, Issue	Number of Downloads	Open Access
Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP)	Omer Sarfraz & Christian K. Bach	Volume 24 Issue 10	2,236	Yes
Traffic noise level predictions for buildings with windows opened for natural ventilation in urban environments	Moon Keun Kim, et al.	Volume 23 Issue 5	1,618	Yes
Design optimization and validation of high-performance heat exchangers using approximation assisted optimization and additive manufacturing	Daniel Bacellar, et al.	Volume 23 Issue 6	1,530	Yes
Supermarket system characteristics and operating faults (RP-1615)	Alireza Behfar, et al.	Volume 24 Issue 10	1,325	Yes
Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)	Mehdi Mehrabi & David Yuill	Volume 25 Issue 6	1,318	Yes
Development of New Low-GWP Refrigerants–Refrigerant Mixtures Including HFO-1123	Mai Hashimoto, et al.	Volume 25 Issue 6	1,193	Yes
A heat transfer and friction factor correlation for low air-side Reynolds number applications of compact heat exchangers (1535-RP)	Pradeep Shinde & Cheng-Xian Lin	Volume 23 Issue 1	1,106	Yes
Ventilation strategies and air quality management in passenger aircraft cabins: A review of experimental approaches and numerical simulations	Hossam A. Elmaghraby, et al.	Volume 24 Issue 2	1,091	No
HVAC control loop performance assessment: A critical review (1587-RP)	Zheng O'Neill, et al.	Volume 23 Issue 4	933	Yes
Window and door opening behavior, carbon dioxide concentration, temperature, and energy use during the heating season in classrooms with different ventilation retrofits—ASHRAE RP1624	Anna Heebøll, et al.	Volume 24 Issue 6	931	Yes

Top Institutions by Downloads (Past 12 Months)

Institution name	Number of Downloads
The University of Manchester	1,232
Hong Kong Polytechnic University	946
Tongji University	903
Tianjin University	842
Purdue University	730
Xian Jiaotong University	707
Purdue University Calumet	705
First Affiliated Hospital of Medical College of Xi'an Jiaotong University	644
National Renewable Energy Lab	621
Oklahoma State University - Stillwater and Tulsa Oklahoma State University	604

Note: Consortia have been removed from this table.

Article Downloads by Source



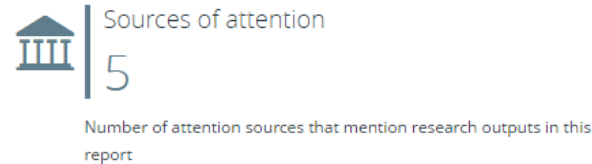
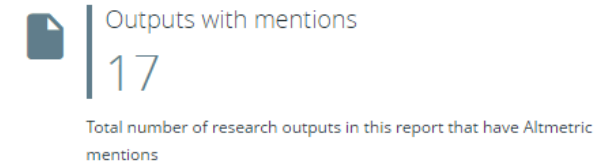
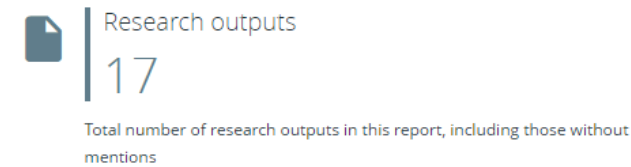
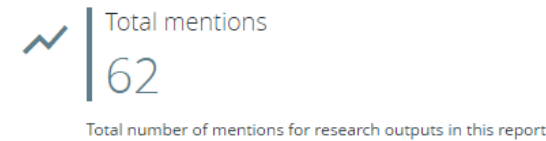
Altmetric Analysis – Top Altmetric Scores (Past Year)

Report generated July 2020

RANK	ATTENTION SCORE	RESEARCH OUTPUT			
#1		Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705) Article in Science and Technology for the Built Environment , June 2019	#6		Engineering control of respiratory infection and low-energy design of healthcare facilities Article in Science and Technology for the Built Environment , January 2015
#2		Integrating IAQ control strategies to reduce the risk of asymptomatic SARS CoV-2 infections in classrooms and open plan offices Article in Science and Technology for the Built Environment , July 2020	#7		IAQ 2016: Defining indoor air quality: Policy, standards and best practices Article in Science and Technology for the Built Environment , December 2017
#3		Modeling infection risk and energy use of upper-room Ultraviolet Germicidal Irradiation systems in multi-room environments Article in Science and Technology for the Built Environment , January 2015	#8		Addressing the building energy performance gap with measurements Article in Science and Technology for the Built Environment , February 2020
#4		Meta-analysis of summertime indoor temperatures in new-build, retrofitted, and existing UK dwellings Article in Science and Technology for the Built Environment , June 2019	#9		Characterization, testing, and optimization of load aggregation methods for ground heat exchanger response-factor models Article in Science and Technology for the Built Environment , September 2019
#5		Indoor air quality in 24 California residences designed as high-performance homes Article in Science and Technology for the Built Environment , January 2015	#10		Development of a test method to determine the effectiveness of UVC systems on commercial cooking effluent (RP-1614) Article in Science and Technology for the Built Environment , July 2020

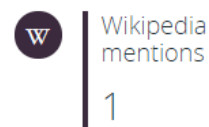
Overview and Source Breakdown of Altmetric Attention Score (Past Year)

REPORT OVERVIEW



ATTENTION SOURCE BREAKDOWN

The number of mentions from each source that Altmetric has tracked for the research outputs in this report.



Link to Altmetric Report

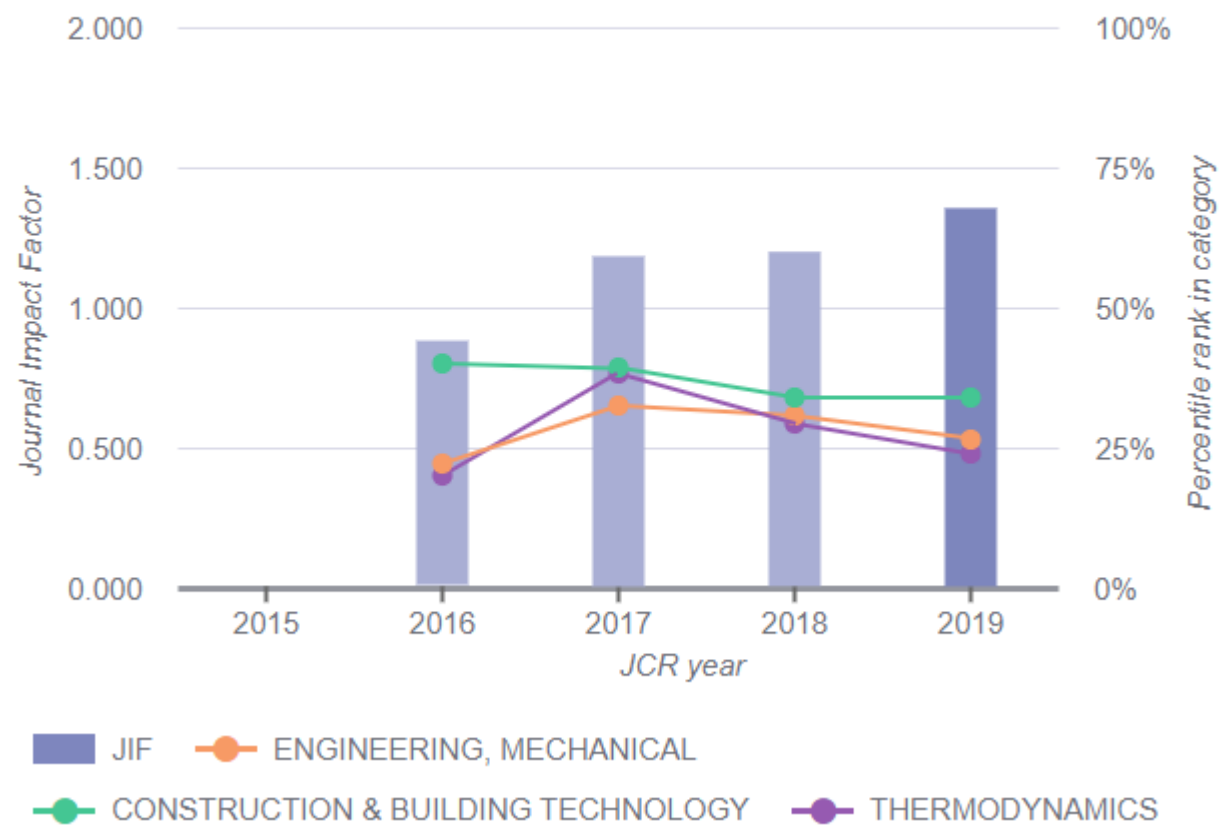
The link below can be used to access a report containing the latest Altmetric attention to your journal. This data is updated daily, so can be used to keep track of trending articles.

<https://www.altmetric.com/explorer/report/269fecca-3cf3-409d-956b-56161e477766>

Impact Factor Chart

1.356

2019 Journal Impact Factor



Impact Factor & Ranking

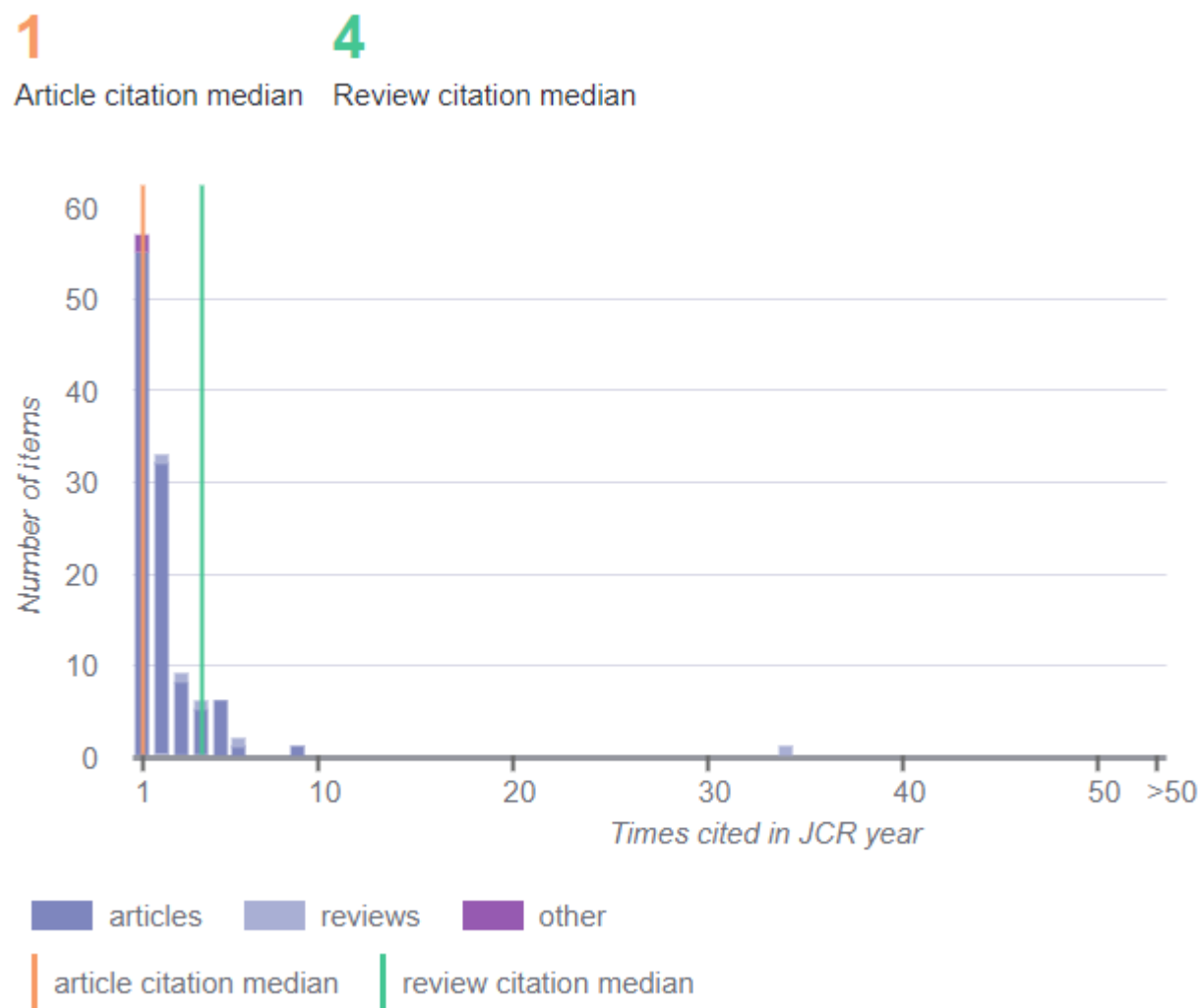
Impact Factor Year	Impact Factor	Rank
2013	0.745	31/58 Construction & Building Technology, 36/55 Thermodynamics, 75/126 Engineering, Mechanical
2014	0.673	35/59 Construction & Building Technology, 43/55 Thermodynamics, 92/130 Engineering, Mechanical
2015	0.871	37/61 Construction & Building Technology, 43/58 Thermodynamics, 86/132 Engineering, Mechanical
2016	0.928	37/61 Construction & Building Technology, 47/58 Thermodynamics, 97/130 Engineering, Mechanical
2017	1.183	38/62 Construction & Building Technology, 37/59 Thermodynamics, 87/128 Engineering, Mechanical
2018	1.199	42/63 Construction & Building Technology, 43/60 Thermodynamics, 90/129 Engineering, Mechanical
2019	1.356	42/63 Construction & Building Technology, 47/61 Thermodynamics, 96/130 Engineering, Mechanical

2019 Impact Factor Self-Citation Rate: 32 self-citations out of 274 – 11.67%.

Top Cited Articles – 2019 Impact Factor

Article Title	First Authors	Volume	Issue	Document Type	Citations in 2019
A review of fault detection and diagnostics methods for building systems	Kim, Woohyun	24	1	Review	34
Development and implementation of a thermostat learning algorithm	Gunay, H. Burak	24	1	Article	9
Improvements on the American Society of Heating, Refrigeration, and Air-Conditioning Engineers Handbook equations for sizing borehole ground heat exchangers	Li, Min	23	8	Article	6
Review and analysis of fuel cell-based, micro-cogeneration for residential applications: Current state and future opportunities	Milcarek, Ryan J.	23	8	Review	6
Development of prototypical buildings for urban scale building energy modeling: A reduced order energy model approach	Yang, Guang	24	1	Article	5
Development of a standard capture efficiency test method for residential kitchen ventilation	Kim, Yang-Seon	24	2	Article	5
Multi-objective optimization of thermo-acoustic devices using teaching-learning-based optimization algorithm	Rao, Ravipudi Venkata	23	8	Article	5
Sizing heating, ventilating, and air-conditioning systems under uncertainty in both load-demand and capacity-supply side from a life-cycle aspect	Huang, Pei	23	2	Article	5
Studying the performance of a dehumidifier with adsorbent coated heat exchangers for tropical climate operations	Oh, Seung Jin	23	1	Article	5
Heat and mass transfer performance comparison between a direct-contact liquid desiccant packed bed and a liquid-to-air membrane energy exchanger for air dehumidification	Ge, Gaoming	23	1	Article	5

Article Citation Distribution – 2019 Impact Factor

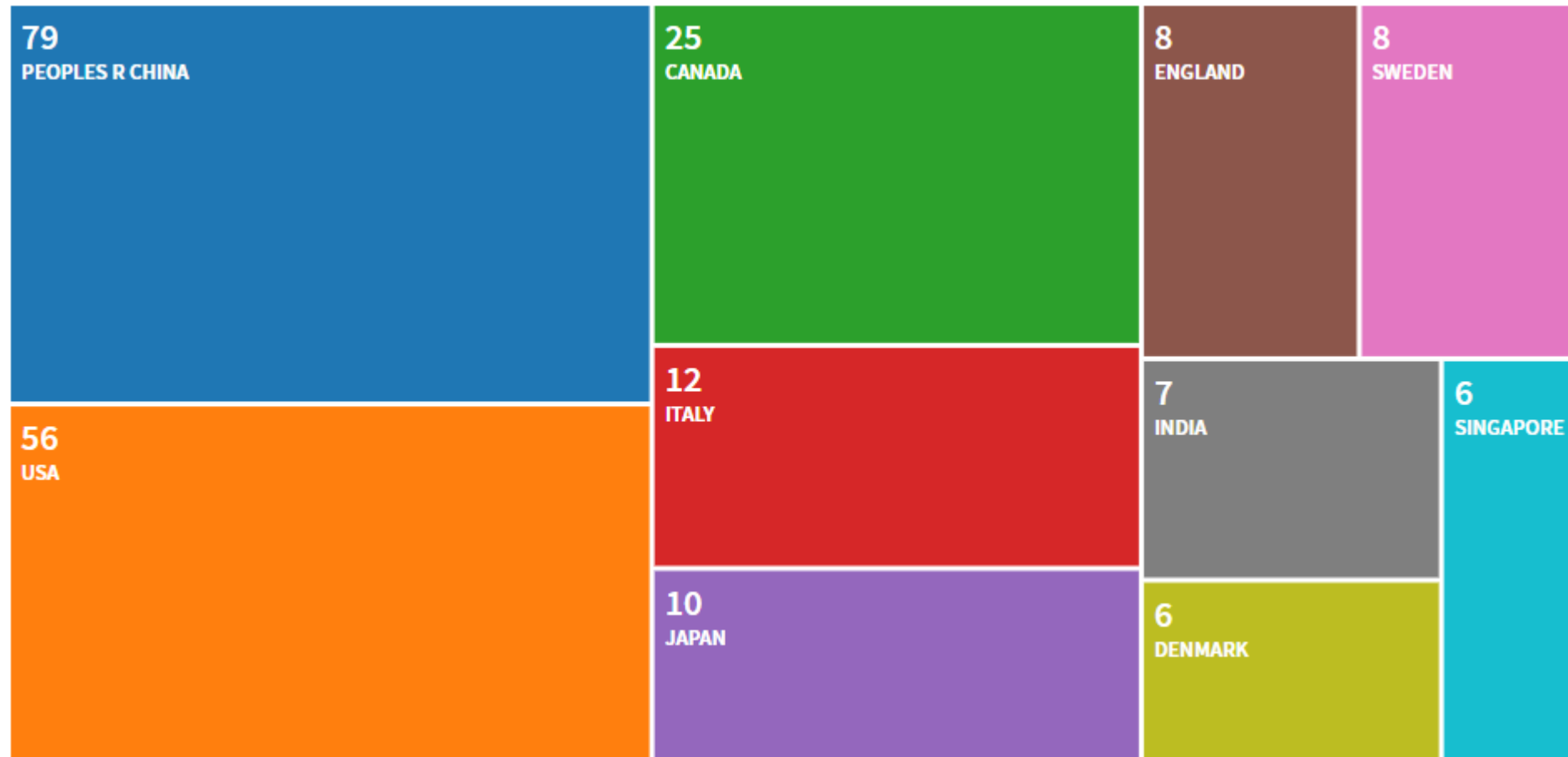


Citing Sources – 2019 Impact Factor



Note: Number of citing articles from each journal.

Citing Regions – 2019 Impact Factor



Note: Shows number of citing articles from each region. Web of Science lists England, Scotland, Wales and Northern Ireland separately.

CiteScore and Ranking

CiteScore	Score	Rank
2015	1.7	18 / 48 Fluid Flow and Transfer Processes, 49 / 101 Environmental Engineering, 49 / 155 Building and Construction
2016	1.7	23 / 53 Fluid Flow and Transfer Processes, 55 / 155 Building and Construction, 56 / 102 Environmental Engineering
2017	1.9	22 / 77 Fluid Flow and Transfer Processes, 60 / 115 Environmental Engineering, 64 / 167 Building and Construction
2018	2.4	27 / 83 Fluid Flow and Transfer Processes, 56 / 124 Environmental Engineering, 63 / 176 Building and Construction
2019	2.6	32 / 83 Fluid Flow and Transfer Processes, 61 / 132 Environmental Engineering, 62 / 174 Building and Construction

Marketing – Objectives

Through various campaigns and the marketing of your journal, our objectives are to:

- Drive and sustain usage
- Demonstrate impact
- Grow international reach
- Attract high quality submissions
- Increase citations
- Increase author and researcher engagement
- Increase membership.

Reaching Readers Emails

In total, 141 STBE articles have been promoted via the RR campaign since January 2019.

Article Title	Contact Count
A study of the effects of water capacity on the thermal performance of water-in-glass evacuated tube solar collectors applied to space heating	2,804
Investigating the influence of different speeds and directions of winds on the performance of split air conditioning systems	1,340
Development of control quality factor for HVAC control loop performance assessment—II: Field testing and results (ASHRAE RP-1587)	1,251
Data-driven energy models for existing VFD-motor-pump systems	1,207
Virtual measurement of the air properties in air-handling units (AHUs) or virtual re-calibration of sensors	1,207
The impact of rock fracturing and pump intake location on the thermal recovery of a standing column well: model development, experimental validation, and numerical analysis	1,141
Study of thermal performance of an air source heat pump heating for suburban residential buildings in Beijing	1,081
Determine the absolute roughness of phenolic duct (RP-1764)	1,004
A numerical analysis and optimization of the dynamic performance of a multipurpose solar thermal system for residential applications	997
Applicability of Control Algorithms for Variable Water-flow Control Practice of Central Air-conditioning Cooling Water System	985

Alerts and Social Media

New Contents Alerts:

The journal can be found at **<https://www.tandfonline.com/UHVC>** where anyone can sign up for new contents alerts. Your journal currently has **191** active e-Table of Contents (e-ToC) subscribers.

Social Media

Taylor & Francis has official social media accounts for each of the major subject areas that provides journal level marketing.

- You can find your relevant Taylor & Francis social media feeds here:
 - Twitter: <http://www.twitter.com/TandFSTEM>
 - Facebook: <http://www.facebook.com/TandFScience>
- You can find the social media guide for editors here: **<http://bit.ly/ER-SocialMedia>**

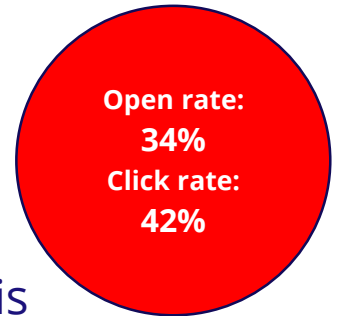
Marketing for Authors

- Authors anniversary emails are sent at 2 weeks, 5 weeks, 3 months, 6 months and 12 months following publication.
- These emails use social sharing buttons to encourage authors to share online, with their own audience, in their own voice.
- Sent to all authors regardless of marketing opt-in status – this is a service email.
- Average open rate of 38% and a click through rate of 8%, considerably higher than industry averages*.



*Current media & publishing industry open rate is 22.15%, click rate 4.61% <https://mailchimp.com/resources/email-marketing-benchmarks/>

Citation Alerts



- Using Colwiz data, we now send citation alert emails to T&F authors where their paper is less than 2 years old, and has been cited by a new article published on TFO. These emails are currently averaging a 34% open rate and 42% click rate.
- This service currently goes to opted-in authors only, though we are investigating including all authors as a service/transaction message.
- To encourage more authors to receive these alerts, please encourage them to check their marketing subscription status at:
<http://pages.email.taylorandfrancis.com/taylorandfrancissubscriptioncenter>

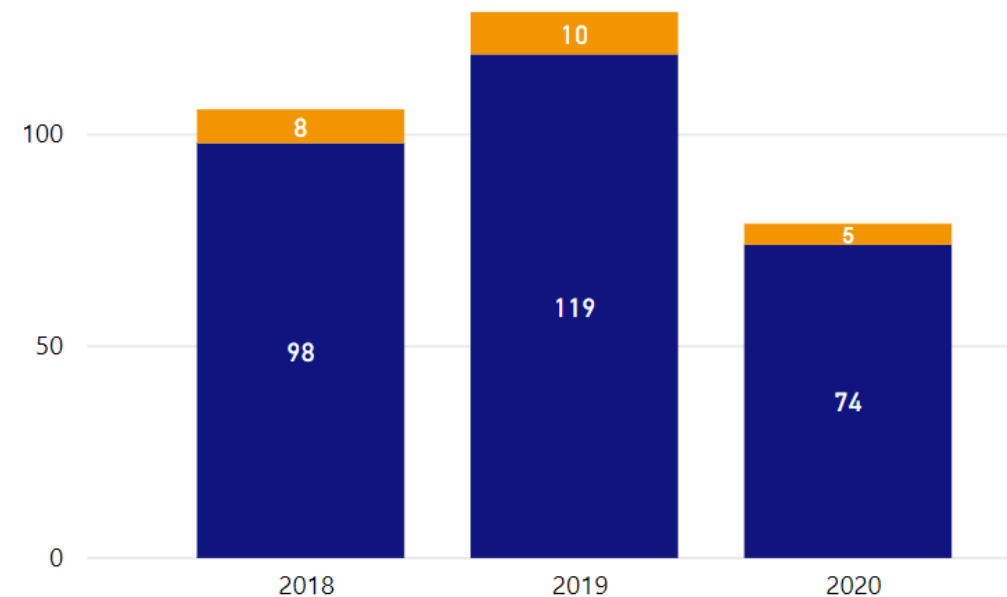
**Current media & publishing industry open rate is 22.15%, click rate 4.61% <https://mailchimp.com/resources/email-marketing-benchmarks/>*

Production – Published Content (Volumes 2018-2020)

Article Type	Distinct Count of Documents
Article	289
Editorial	16
Guest Editorial	4
Correction	2
Corrigendum	2
Addendum	1
Total	314

Number of Articles Published by Volume Year - with OA Split

Open Access Article? ● Non-Open Article ● Open Article



For more information on Open Access and Plan S, please visit:

- <http://authorservices.taylorandfrancis.com/publishing-open-access-with-taylor-francis/>
- <https://editorresources.taylorandfrancis.com/peersupport/coalition-s-plan-s-and-accelerating-oa/>

Production Schedule (January 2019 – July 2020)

Online Issue Published

Issue Number	2019	2020
01	14 February 2019	07 January 2020
02	19 March 2019	30 January 2020
03	19 March 2019	11 February 2020
04	23 April 2019	26 February 2020
05	29 May 2019	22 April 2020
06	08 July 2019	28 May 2020
07	02 August 2019	29 June 2020
08	08 October 2019	
09	29 October 2019	
10	12 December 2019	

Print Issue Published

Issue Number	2019	2020
01-05	27 June 2019	15 May 2020
06-10	19 December 2019	

Page Count Report (Volume Years 2019 and 2020)

Volume Year ▲	Budgeted Pages	Actual Pages	Number of Pages Remaining
2019	1520	1524	-4
2020	1520	1168	352

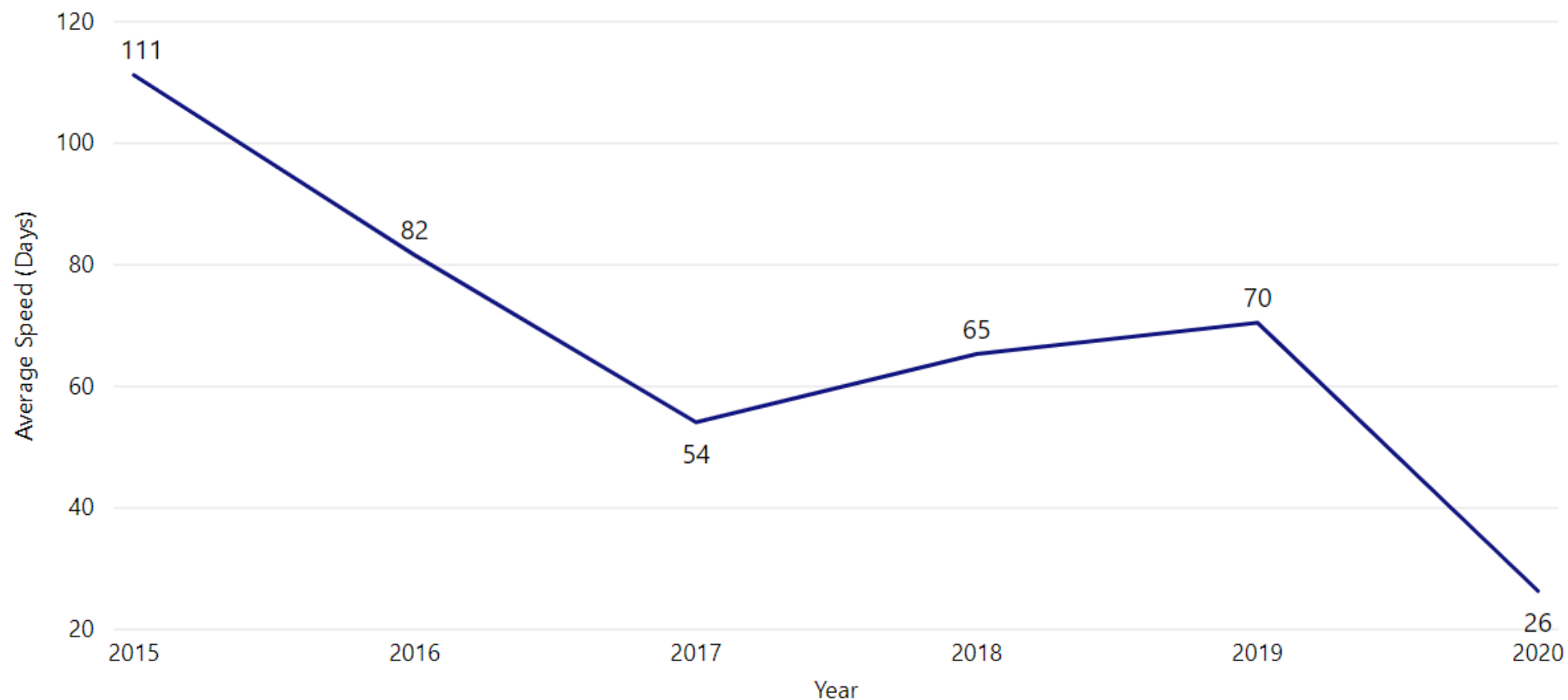
Backlog Report (Volume Years 2019 and 2020)

Manuscript Type	Number of Manuscripts	Number of Typeset Pages
Article	30	431
Total	30	431

The current backlog contains enough articles for the next 2.8 issues.

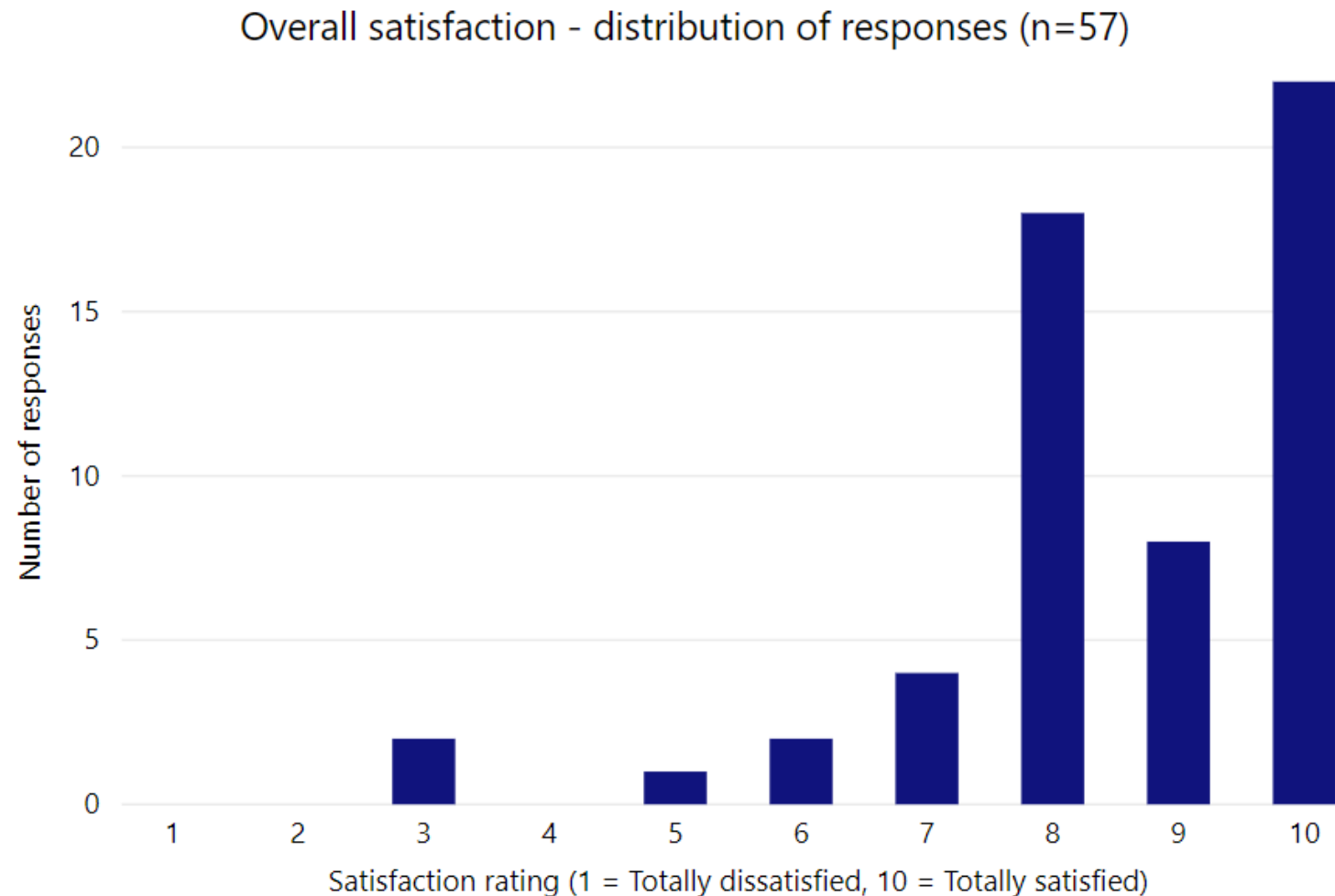
The oldest article not yet assigned to an issue was received in Production on 24 February 2020.

Average Speed of Article Publication*

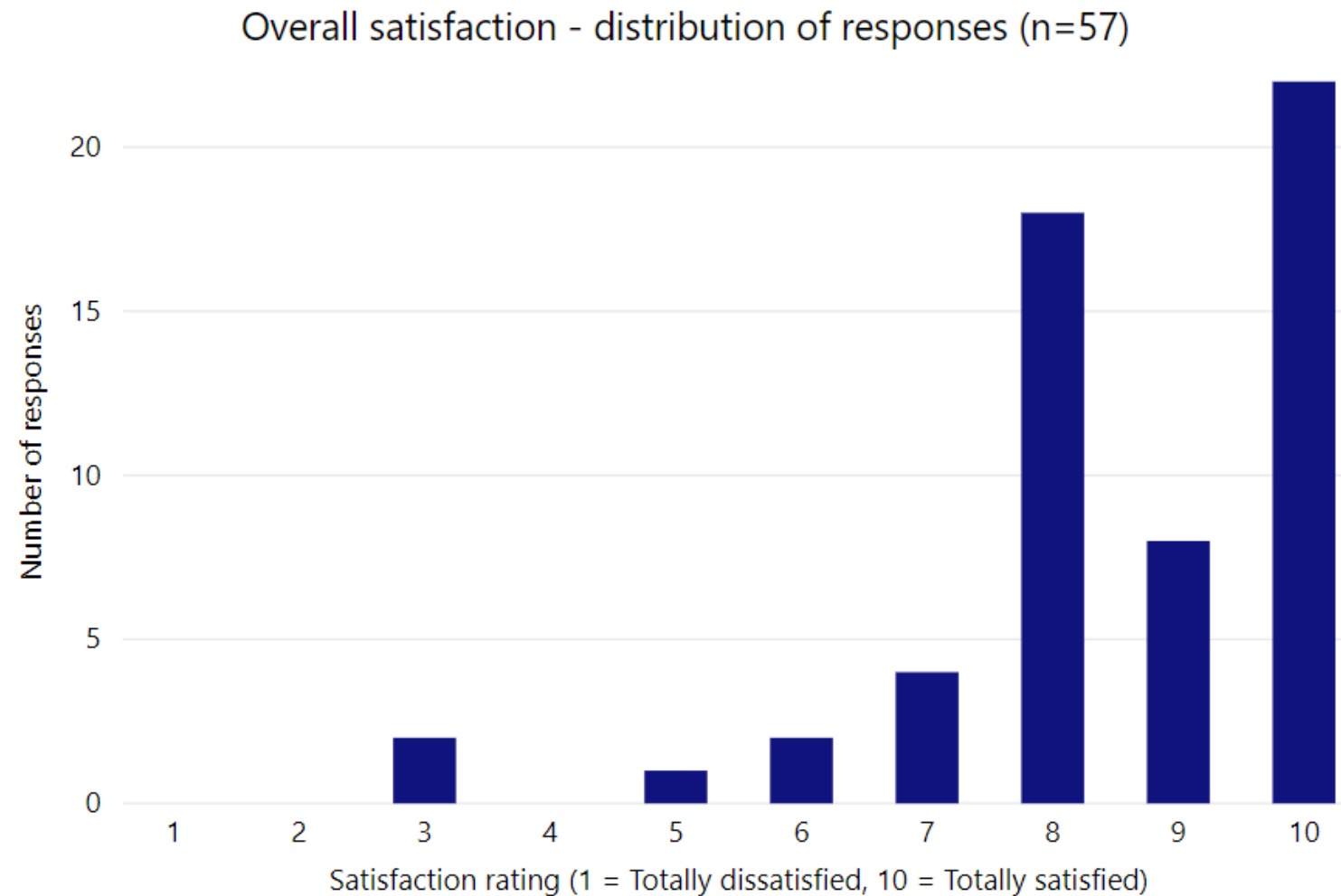


* mean days from submission to Central Article Tracking System (CATS) to online publication.

Author Survey – Overall Satisfaction (2018-2020)



Satisfaction with Refereeing Process (2018-2020)



Resources

News, support and guidance for Editors, authors and Librarians:

EDITORRESOURCES
Supporting Taylor & Francis journal editors

<http://editorresources.taylorandfrancisgroup.com/>

AUTHORSERVICES
Supporting Taylor & Francis authors

<http://authorservices.taylorandfrancis.com>

LIBRARIANRESOURCES
Taylor & Francis supporting librarians

<https://librarianresources.taylorandfrancis.com/>



A bi-monthly campaign designed for Editors.
Sign up here: http://bit.ly/tandf_ppp



Sign up for updates, tips and talking points from **Author Services**, **Editor Resources** and **Librarian Resources** websites straight to your inbox:
<https://authorservices.taylorandfrancis.com/category/insights/>



[@tandfonline](#)
[@tandfnewsroom](#)



[@TaylorandFrancisGroup](#)

Development Initiatives

We need research from around the world to address global challenges. We remain committed, therefore, to supporting emerging region researchers on their publishing journeys.

For more information on the Taylor & Francis development initiatives, please visit:

- <http://taylorandfrancis.com/about/corporate-responsibility/development-initiatives>
- <https://authorservices.taylorandfrancis.com/star>
- <https://librarianresources.taylorandfrancis.com/services-support/development-initiatives>
- <https://www.taylorandfrancis.com/sdgo>



Feedback

We'd love to hear what you think! If you have any feedback or suggestions for improvement, please fill out the below questionnaire using the following link or scan the QR code:

<https://www.surveymonkey.co.uk/r/TTJG7TP>



Journal Contacts

Editorial

- Portfolio Manager – stephanie.loeh@taylorandfrancis.com

Production

- Production Editor – UHVC-production@journals.taylorandfrancis.com

Peer-Review

- Peer Review Help Desk – PRSHelp@tandf.co.uk



Science and Technology for the Built Environment

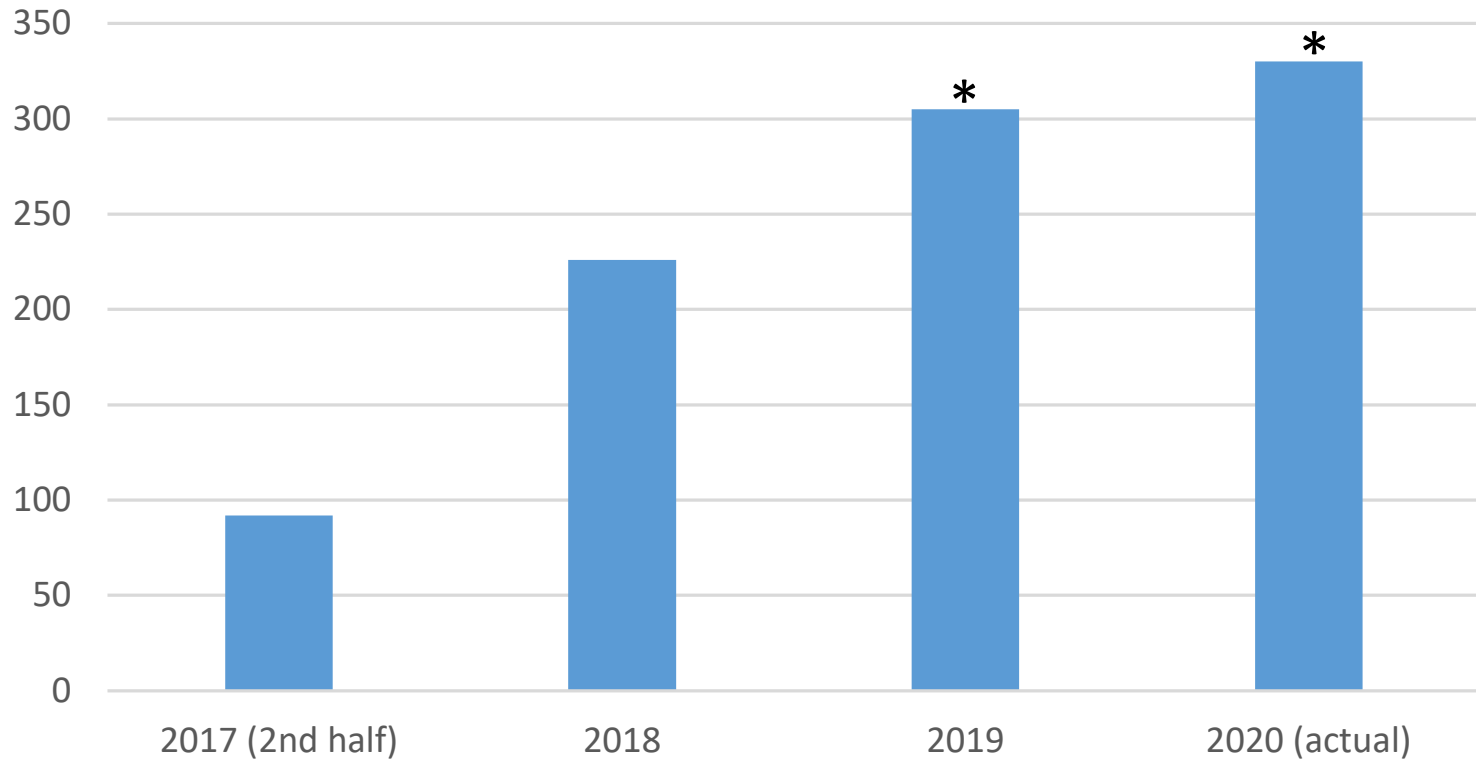
Jeffrey D. Spitler

January 11, 2021

Best paper award

- 10/1: Associate Editors requested to nominate best papers.
- 6 nominations received; JDS nominated 4 additional.
- 11/23 Jury formed: Culp, Owen, Bernier, Toftum
- Jury members ranked the papers; an overall ranking was created.
- 12/18 Jury met and reached a decision.
- 12/23 Recommendation sent to Rhiannon Masterson

Submissions



* 2019 forward are from ScholarOne; 2017 & 2018 come from T&F.

2020

- 330 submissions
- JDS rejected 106 papers
 - Common reasons:
 - Out of scope
 - Case studies
- 108 rejections by recommendation of Associate Editors.
- 105 papers published
- 8 Editorials published

2020 Special Issues

- ASIM 2018
- Flammable Refrigerant Safety
- IAQVEC 2019

2020 Editorial Board Meetings

- First online meetings in July.
- Two meetings to accommodate both hemispheres.
- First meetings with > 90% participation.
- Accomplishments:
 - Two editorials.
 - Reviewer Board launched.
 - Special issues started.

2020 Editorials

- JDS:
 - Introduction & thankyou to Reinhard
 - Reviewing for STBE
 - Addressing the Building Energy Gap with Measurements
- Toward a user-centered built environment (Agee, O'Brien, Day, Brackley)
- Integrating IAQ control strategies to reduce the risk of asymptomatic SARS CoV-2 infections in classrooms and open plan offices (Zhang)
6657 views; 3 references, Altmetric score 200

Misconduct allegation (2)

- Complaint that paper published in a special issue had largely redone the same work as previously reported in an STBE paper.
- Mostly correct.
- Mitigating factor: Authors of paper 2 recommended an author of paper 1 as a reviewer.
- Paper 2 did have some new (different) work; opinion of significance varies.
- Paper 2 received reasonably thorough reviews, though no one flagged the similarities.
- Resolution: Paper 2 was revised to show relationship to Paper 1 more clearly.
- Authors of Paper 1 were satisfied with the outcome.
- Thanks to Alexa and Jørn Toftum

Associate Editors

- Two Associate Editors with terms expiring this year +1 who might prefer to be replaced:
 - Richard De Dear (I will ask to stay on)
 - Chandra Sekhar (I will check to see if he wishes to stay on.)
 - Roberto Lamberts (Stayed on as a favor, but I think would prefer to be replaced.)

Reviewer Board

- Concept:
 - Recruit members from junior and mid-level faculty, recent PhD graduates.
 - Commitment to review ~4 papers per year in a timely fashion (2 weeks or less).
- Current status:
 - Invited 53 members
 - 38 accepted preliminary invitation
 - These 38 are now on masthead and AEs have details.
 - 9 additional members have just been added.

Reviewer Board

Name	Affiliation		Name	Affiliation
Ahmad Abbas	GIK Institute of Engineering Sciences and Technology, Topi, KPK, Pakistan		Akram Abdul Hamid	Division of Building Physics, Lund University, Lund, Sweden
Philip R. Agee, Ph.D	Virginia Tech, Blacksburg, VA, USA		Maomao Hu	Department of Engineering Science, University of Oxford, Oxford, UK
Maria Alberdi-Pagola	CP Test A/S		Ongun Berk Kazanci	International Centre for Indoor Environment and Energy, Department of Civil Engineering, Technical University of Denmark, Kgs. Lyngby, Denmark
Vikrant C. Aute	University of Maryland, College Park, Maryland, USA		Jae-Weon Jeong	Professor of Department of Architectural Engineering, Hanyang University, Seoul, South Korea
Christian K. Bach	Oklahoma State University, Stillwater, Oklahoma, USA		Michael G. Kent	Berkeley Education Alliance for Research in Singapore, Singapore
Cao Bin	Tsinghua University, Beijing, China		Meng Kong	Syracuse University, Syracuse, NY, USA
Mariya P. Bivolarova	Technical University of Denmark, Kgs. Lyngby, Denmark		Hoseong Lee	Korea University, Seoul, Korea
Craig R. Bradshaw	Oklahoma State University, Stillwater, Oklahoma, USA		Hangxin Li	The Hong Kong Polytechnic University, Kowloon, Hong Kong SAR
Jayson Bursill	Carleton University, Ottawa, Ontario, Canada		Fang Liu	Shandong Jianzhu University, Jinan, Shangdong, China
Jie Cai	University of Oklahoma, Norman, Oklahoma, USA		Xiaobing Liu	Oak Ridge National Laboratory, Oak Ridge, TN, USA
Shanshan Cai	Huazhong University of Science and Technology, Wuhan, Hubei, China		Matt S. Mitchell	National Renewable Energy Laboratory, Golden, CO
Yimin Chen	Lawrence Berkeley National Laboratory, Berkeley, CA, USA		Mohamed Ouf	Concordia University, Montreal, Quebec, Canada
Massimo Cimmino	Polytechnique Montréal, Montréal, QC, Canada		Jingjing Pei	Tianjin University, Tianjin, China
Moshood O. Fadeyi	Singapore Institute of Technology, Singapore		Long T. Phan	Florida International University, Miami, Florida, USA
Cheng FAN	College of Civil and Transportation Engineering, Shenzhen University, China		Mohammad Reza Safaei	Civil and Environmental Engineering Department, Florida International University, Miami, FL, USA
Jamie P. Fine	University of Toronto, Toronto, Ontario, Canada		Omer Sarfraz	Johnson Controls, York, Pa, USA
Victor Fransson	Division of Building Services, Department of Building- and Environmental Technology, Faculty of Engineering, Lund University, Sweden		Jialei Shen	Syracuse University, Syracuse, NY, USA
Brian M. Fronk	Oregon State University, Corvallis, Oregon, USA		Andrew Sommers, PhD, Assoc	Department of Mechanical and Manufacturing Engineering, Miami University, Oxford, Ohio, USA
Yangyang Fu	Texas A&M University, College Station, Texas, USA		Rui Tang	Lawrence Berkeley National Laboratory, Berkeley, CA, USA
Wenjie Gang	Huazhong University of Science and Technology		Despoina Teli	Division of Building Services Engineering, Department of Architecture and Civil Engineering, Chalmers University, Gothenburg, Sweden
Zhi Gao	Ph.D, Associate Professor, School of Architecture and Urban Planning, Nanjing University, Nanjing, China		Marianne F. Touchie	University of Toronto, Toronto, Ontario, Canada
Hua Ge	Concordia University, Montreal, Canada		Adam D. Wills	National Research Council Canada, Ottawa, Ontario, Canada
Sara Gilani	Natural Resources Canada, Ottawa, Ontario, Canada		Dr. Xin Zhang	School of Architecture, Tsinghua University, Beijing, China
Burak Gunay	Carleton University, Ottawa, Ontario, Canada			

Special Issues – 2021 and beyond

- Thermal Science and Technology 2019: 8 papers published (January 2021)
- Clima 2019: 53 invited; 16 submitted; 4 rejected
- Building Simulation 2019: 8 in review; 1 accepted
- BPACS 2020: 15 invited; 1 submitted
- Field-measured Performance of Heating, Cooling and Ventilating Systems. (Last date for submissions 12/1/2021)

It's possible one or two of these will come to fruition in 2021.

General Plans

- Arranging two Editorial Board meetings.
- Pandemic is going to delay or eliminate some opportunities for special issues based on conferences.
 - Will ask the Editorial Board to help identify non-conference-based topical issues.

Needs attention

- Assigning Open Access status



**PEC – Professional Development Subcommittee
Meeting of Friday, January 22, 2021**

In Attendance

Members: Chandra Sekhar, Chair, Larry Fisher, Donald Brandt, Ashley Weekly, Kurt Monteiro, Jeremy Smith, Keith Reihl, James Vallort, Mark Owen

Guests: Karen Murray, Bill Dean, Tim Kline, William Stuart, Eric Yang

Motions

None.

Information Items

Certification Committee Report was given by Ashley Weekly, Chair (*Attachment A*)

1. Certification Committee completed its annual, ANSI required, Management System Review of the effectiveness needed improvements for certification services. All seven ASHRAE certifications are ANSI-accredited.
2. Remote online proctored certification examination launched fall 2020 for a safe, secure and convenience. In December, over 80% of examinees took advantage of this new service.
3. The Certification Study Guide: Certified HVAC Designer (CHD) launched in October 2020 and has sold 113 copies. The guide features a 100-question CHD practice exam and links to other resources in ASHRAE publications and training for additional information.

Mr. Brandt asked if a study guide will be developed for all certification programs and Mr. Owen explained that this was the first and depending on interest and budget more will be developed. Ms. Weekly also stated that with limited funds it was important to evaluate the need for a guide for some certification programs that are not performing as well.

An Action Item was assigned to Mr. Kline to send a copy of the Certified HVAC Designer Study Guide to Mr. Brandt and Mr. Dean. (ACTION ITEM 1)

Mr. Sekhar suggested developing a list of TEC courses that relate to each certification. Mr. Kline informed the subcommittee that currently the certification page lists courses that relate to job task understanding for each certification.

Ms. Weekly stated likewise a communication process should be developed to inform TEC participants of certifications that relate to a course they just completed.

Mr. Sekhar suggested developing a map for all ASHRAE products to include Certification, training and publications. Mr. Smith explained that this would be a very large project and suggested a key word list as an option. Mr. Kline will investigate if ASHRAE has a current key word list or the possibility of developing one. (ACTION ITEM 2)

Mr. Owen reported that a "Pathway Initiative" may be in the works for Mr. Schwedler's presidential year.

4. Certification Digital Badging has been very successful with over 900 badges claimed, over 500 shares to LinkedIn and over 10,000 badge views in all media.
5. In December, the Certification Committee partnered with Region XII to deliver a Live Certification Tech Talk featuring need-to-know information for prospects and employers. Region XII Members will receive a 20% application discount through March 31. Regions interested in Co-Hosting a similar Certification Tech Talk should contact Tim Kline at tkline@ashrae.org for details.

Mr. Kline reported to the subcommittee that presentation was to promote the value of Certification and to explain the process of achieving a certification. Mr. Reihl suggested contacting ASHRAE DRCs as this type of presentation might be valuable at CRC meetings.

Mr. Kline also reported that no one has applied with the offered 20% to date.

6. Through December 31, 2020, there were 330 recertification applications received, versus 279 total in 2019.

Training & Education Committee (TEC) Report was given by Jeremy Smith (Attachment B)

7. The committee approved a motion from Members Council "That Society expand the eLearning Corporate training program to be used by ASHRAE chapters beginning January 2021." A program already exists for chapters to purchase eLearning courses at a discounted rate.
8. Comparison of 2020-21 to 2019-20 ALI course registrations is listed on the TEC report.
9. Online ALI HVAC Design training began in December 2020, and Online HVAC Design training presented through the Global Training Center begins in late January 2021. The GTC training is tailored to the Middle East, Northern Africa and parts of Asia. The training costs are lower, and prices are available for developing economies. Procedures are in place to guide registrants to the appropriate training based on their general location.
10. Work to review and revise select Self Directed Learning (SDL) courses continues including the development of slides to accompany courses.

Mr. Owen reported that funding availability is a constraint due, in part, to the loss of income from cancellation of the Winter Conference resulting the freezing of some programs and projects.

Mr. Vallort commented that the process should be standardized like the Standards updating schedule. At the request of Mr. Fisher, the course updating schedule will be included with the subcommittees report to PEC. (ACTION ITEM 3)

11. ASHRAE Learning Institute is working with the Epidemic Task Force to develop and deliver courses focused on the most up-to-date SARS CoV-2 findings. Ms. Murray explained to the subcommittee that new course development has been brisk with interest from NYSERDA and other outside groups.

The following SARS Cov-2 related courses are offered early in the 2021 Online Course Series beginning in late January:

- **NEW!** COVID-19 and Buildings: Re-Occupation After Lockdown
 - **NEW!** Reopening Commercial Buildings: Evaluating Your HVAC Systems' Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Health Impacts of Indoor Air Extraction, Ventilation and Filtration - Same or Different?
 - **Updated!** Hospital HVAC: Infection Mitigation, Comfort, Performance
 - **NEW!** Evaluating Your HVAC System's Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Fundamentals of Ultraviolet Germicidal Irradiation (UVGI) for Air and Surface Disinfection
 - **NEW!** Reopening Universities: Managing HVAC Systems to Mitigate the Spread of SARS-CoV-2 (in the scheduling process)
12. eLearning has seen a substantial increase in subscription revenue and is on track to make the forecast for the 2020-2021 fiscal year. The cumulative subscription revenue for the fiscal year to date is 153.6K on a forecast of 315K (December Financials). Most of this revenue is from individual member and non-member subscriptions, with a few corporate subscriptions.
 13. eLearning is continuing its course updates to meet the demand. Seven courses have been updated with a goal of ten for the 2020-2021 Society Year. The priority is Fundamental Courses, which have proven to be the most popular with corporate customers.

Other Issues Discussed

Mr. Dean discussed with the subcommittee that they prioritize cross committee communication to coordinate product development and efficiency. Additionally, Mr. Dean asked if Certification Committee or TEC had experiences any bottlenecks with other councils or committees they would like to discuss.

Mr. Sekhar asked how TEC courses are chosen for development and Mr. Smith explained that after some interest has been shown then TCs or SSPCs are approached for proposals to develop a course. Mr. Sekhar also suggested more courses be developed for hands-on subjects, such as, equipment or instrument use or data collection, interpretation and analysis for IAQ.

Mr. Stuart suggested a need for better communication and coordination between TEC courses, ASHRAE Conference programs and TCs on subject matter related to each TC.

Respectfully submitted,
Chandra Sekhar, Professional Development Subcommittee Chair
January 21, 2021



**Certification Committee Report
to PEC - Professional Development Subcommittee
Meeting of January 20, 2021**

Motions

None.

Information Items:

1. Management System Review

An ANSI requirement, the Certification Committee completed its annual Management System Review, with resulting decisions and actions related both to the improvement of the effectiveness of the management system and to the improvement of certification services. All seven ASHRAE certifications are ANSI-accredited.

2. New! Exam Delivery Mode: [Remote Online Proctored](#)

Launched in the fall of 2020, remote online proctored certification examination is a safe, secure and convenient delivery mode which brings ASHRAE Certification to ASHRAE Members, wherever they live. In December, over 80% of examinees took advantage of this new service.

3. New! Publication: [Certification Study Guide: Certified HVAC Designer](#) (CHD)

Since its launch in October, through December 15 the Certification Study Guide: Certified HVAC Designer (CHD) (Member Price \$56) had sold 113 copies. Featuring a 100-question CHD practice exam, it is a must-have guide to study of HVAC design resources and key job tasks.

4. Marketing

A. Certification [Digital Badging](#)

Over 900 badges have been claimed, with over 500 shares to LinkedIn and over 10,000 badge views in all media. Rich meta-data and real-time, third-party verification.

Example:



B. NEW! Regions: Co-Host Certification “Tech Talk”

In December, the Certification Committee partnered with Region XII to deliver a Certification Tech Talk featuring need-to-know information for prospects and employers. Region XII Members will receive a 20% application discount through March 31.

Regions interested in Co-Hosting a similar Certification Tech Talk should contact Tim Kline at tkline@ashrae.org for details.

5. **Recertification Application**

Through December 31, 2020, 330 applications received, versus 279 total in 2019. The 2020 recertification class may renew through March 31, 2021.

Respectfully submitted,

Ashley Weekly, Certification Committee Chair
Jan. 21, 2021

Attachment A
 Certification Report to PEC- Professional Development SC

MBO Submission to Planning

Council:

PEC

Committee:

Certification / Chair Ashley Weekly, P.E., BEAP

MBO #	Description	Metric (how do we determine success?)	Initiative # (can be more than 1)	Goal # (can be more than 1)	Completion Date	Financial Assist Req'd?
1	Attain 80% recertification rate for the 2020 renewal class in non-DOE programs, exceeding the industry average of 76%.	If 80% recertification rate is attained.	4	2c	3/31/2021	No
2	Grow the number of certification applications by 10% over the 2019-20 total of 405, to a total of 445 applications.	If the number of certification applications increases 10%	4, 1	3a	6/30/2021	No
3	Achieve 300 sales of CHD Study Guide.	If the sale of 300 CHD Study Guides is achieved	4, 1	3a	6/30/2021	No
4	Achieve 90% digital badge acceptance rate.	If a 90% digital badge acceptance rate is achieved	4	2c	6/30/2021	No
5	Achieve 20% digital badge share to email.	If 20% of digital badges are shared to email	4	2c	6/30/2021	No
6	Monitor consistent recognition of certification designations of ASHRAE certificants after their names in ASHRAE print and electronic media wherever the P.E., P.Eng. and Ph.D. designations also appear.	If certification designations consistently are recognized in ASHRAE print and electronic media	4, 3	2a	6/30/2021	No
7	Manage certification programs against the ANSI/ISO/IEC 17024 accreditation standard.	If ASHRAE retains ANSI accreditation of its programs	4	2b	6/30/2021	No



**Training & Education Committee
Report to Professional Development Subcommittee,
Publishing and Education Council (PEC)**

ASHRAE 2021 Winter Conference – Virtual

Recommendations for Board Approval

None

Information Items

1. The committee approved a motion from Members Council “That Society expand the eLearning Corporate training program to be used by ASHRAE chapters beginning January 2021.” A program already exists for chapters to purchase eLearning courses at a discounted rate.
2. Comparison of 2020-21 to 2019-20 ALI course registrations:

Year (Conference Locations)	Winter	Annual	Online	In-Company	Chapter	Industry	HVAC I	HVAC II	GTC	TOTAL*
2020-2021 (Virtual/Phoenix) To date Jan2021	Virtual		395**	891	300	1,008	123	30	1,488	4,235
2019-20 (Orlando/Virtual)	1,138	Virtual	752***	665	200	42	312	250	597	3,956

*Total does not include eLearning or SDL registrants.

** An additional 2,584 individuals registered for free online webinars.

*** An additional 6,909 individuals registered for free online webinars.

3. Online ALI HVAC Design training began in December 2020, and Online HVAC Design training presented through the Global Training Center begins in late January 2021. Though the credit hours for the trainings are the same, the participant prices differ based on the local economy. The GTC training is tailored to the Middle East, Northern Africa and parts of Asia. The training costs are lower, and prices are available for developing economies. Procedures are in place to guide registrants to the appropriate training based on their general location.
4. Work to review and revise select Self Directed Learning (SDL) courses continues. Funding availability is a constraint.
5. ASHRAE Learning Institute is working with the Epidemic Task Force to develop and deliver courses focused on the most up-to-date CoV-2 findings. The following Cov-2 related courses are offered early in the 2021 Online Course Series beginning in late January:
 - **NEW!** COVID-19 and Buildings: Re-Occupation After Lockdown
 - **NEW!** Reopening Commercial Buildings: Evaluating Your HVAC Systems' Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Health Impacts of Indoor Air Extraction, Ventilation and Filtration - Same or Different?

- **Updated!** Hospital HVAC: Infection Mitigation, Comfort, Performance
 - **NEW!** Evaluating Your HVAC System's Readiness to Mitigate the Spread of SARS-CoV-2
 - **NEW!** Fundamentals of Ultraviolet Germicidal Irradiation (UVGI) for Air and Surface Disinfection
 - **NEW!** Reopening Universities: Managing HVAC Systems to Mitigate the Spread of SARS-CoV-2 (in the scheduling process)
6. eLearning has seen a substantial increase in subscription revenue and is on track to make the forecast for the 2020-2021 fiscal year. The cumulative subscription revenue for the fiscal year to date is 153.6K on a forecast of 315K (December Financials). Most of this revenue is from individual member and non-member subscriptions, with a few corporate subscriptions.
 7. eLearning is continuing its course updates to meet the demand of interactive learning experience in the marketplace. The priority is Fundamental Courses, which have proven to be the most popular with corporate customers. For the Society Year 2020-2021, the goal is to update a total of 10 courses. So far, 7 courses have been updated.
 8. Professional Development Committee 2020-2021 MBOs are included as Attachment A.

Respectfully submitted,
Jeremy Smith, Training & Education Committee Chair
January 21, 2021

Training & Education Committee
MBOs for Society Year 2020-21
Chair: Jeremy Smith Date: December 1, 2020

Objective	SP	Complete by	Fiscal Impact	Responsible Party	Comment/ Status
1. Review new strategic plan for items that apply to TEC and develop a plan to implement 2 ideas from the review. Implement 1 idea in the fall and 1 in the spring.			None	Planning Subcommittee	Review started
2. Develop topics and RFPs for an additional (3) practical applications courses			None	Planning Subcommittee	In progress
3. Review SDLs and issue RFPs for the ones that need updating on prescribed schedule			None	Operations Subcommittee	36 mos. post issuance
4. Review existing courses and sunset those that have not been used in 5 years or recommend updates			None	Operations Subcommittee	Continuous
5. Every course reviewed by TEC Liaison prior to presentation– Quality check			None	Operations Subcommittee	Continuous – 1-2 months prior to meetings
6. Develop marketing plan for TEC courses/branding. Work with ASHRAE marketing to understand and improve			TBD	Planning Subcommittee	Continuous – 1 conf. call early fall and 1 conf. call early spring
7. Develop Financial Model for course evaluation				Operations Subcommittee	Draft by Nov 30 Final by April 30
Additional Recommendations for Strategic Planning: Not at this time					



**Research Journal Subcommittee
Report to Products Subcommittee of PEC
Meeting of Monday, January 11, 2021**

In Attendance

Members: Kelley Cramm, Birol Kılış, David Claridge, Jeffrey Spitler, Mark Owen
Guests: Stephanie Loeh, Cindy Michaels

Motions

None.

Action Items

1. Mr. Owen reviewed the financial statements with the subcommittee and took an action item to review future promotion plans with ASHRAE staff and the *Science and Technology for the Built Environment (STBE)* Journal's publisher Taylor & Francis. (*Action Item 1*)
2. Ms. Loeh gave a report to the subcommittee including the following highlights:
([Attachment A](#))
 - STBE published 129 articles in 2019, 10 of which were Open Access.
 - There were 49,095 STBE article downloads in 2020 YTD; 65% higher than 2019 YTD.
 - 'Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP) by Omer Sarfraz & Christian K. Bach, was the most downloaded article with 2,236 downloads.
 - The top Altmetric-scoring article was 'Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)' by Mehdi Mehrabi & David Yuill, with a score of 10.
 - The top cited article was 'A review of fault detection and diagnostics methods for building systems' by Woohyun Kim, with 34 citations.
 - The 2019 Impact Factor is 1.356, ranking 42/63 in the Construction & Building Technology JCR category.
 - The journal's 2019 CiteScore is 2.6, ranking 32/83 in the Fluid Flow and Transfer Processes Scopus category.
3. Dr. Spitler gave the editor's report to the subcommittee including:
([Attachment B](#))
 - 330 submissions
 - 105 papers published
 - 8 Editorials published

4. Dr. Spitler reported that nominations for STBE Best Paper were requested and ranked by a jury (Culp, Owen, Bernier, Toftum). In December 2019 the jury's recommendation was sent the Honors and Awards Committee.

Respectfully submitted,
Kelley Cramm, Research Journal Subcommittee Chair
January 11, 2021

Attachment A
Research Journal Report



Taylor & Francis
Taylor & Francis Group



Science and Technology for the Built Environment

Confidential Publishing Report

Agenda

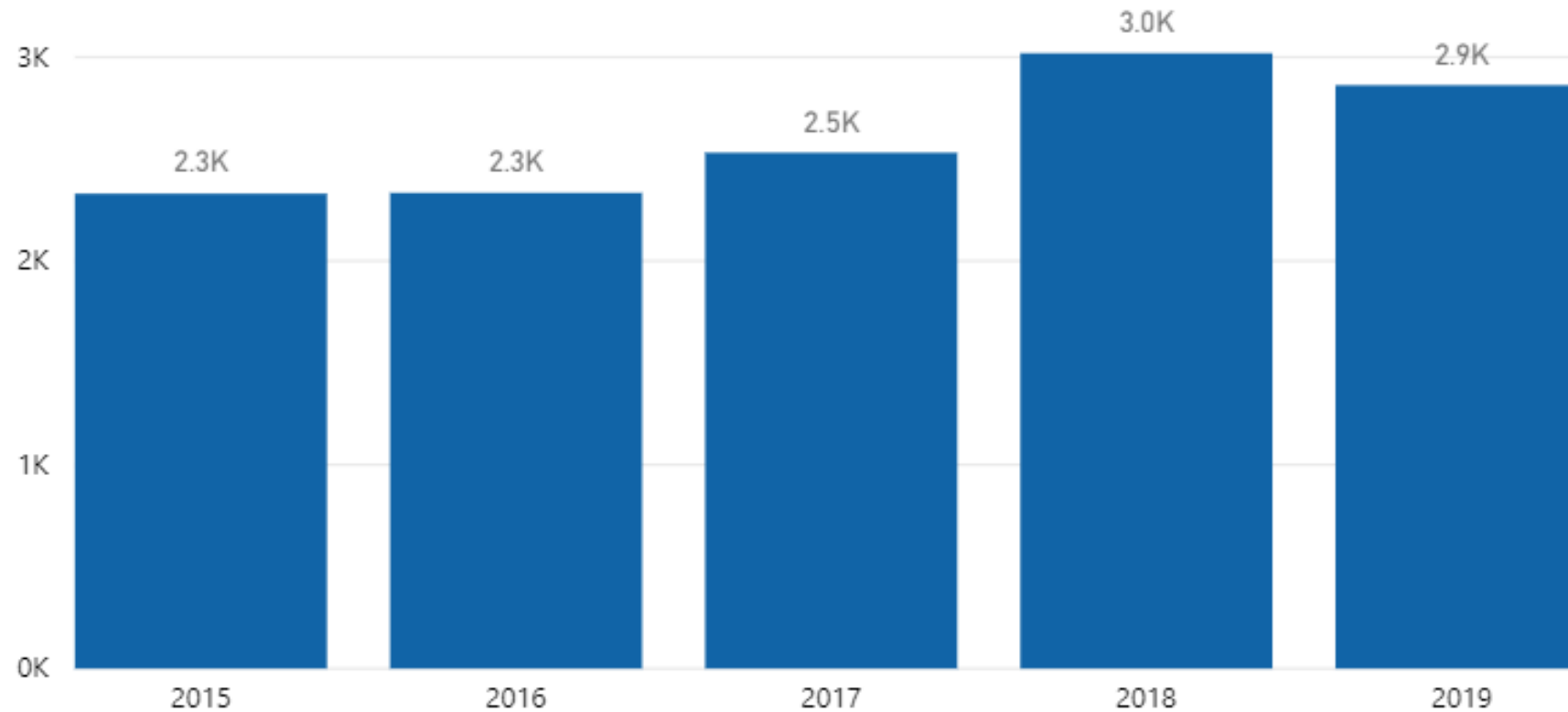
1. Global Reach
2. Altmetric Analysis
3. Citation Analysis
4. Marketing Report
5. Production Report
6. Author Survey
7. Resources
8. Journal Contacts

Highlights

- The Journal received **49,095** article downloads in 2020 YTD, which is **65%** higher than downloads received in 2019 YTD.
- The most downloaded article is '**Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP)**' by **Omer Sarfraz & Christian K. Bach**, with **2,236** downloads.
- The top Altmetric-scoring article was '**Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)**' by **Mehdi Mehrabi & David Yuill**, with a score of **10**.
- The top cited article was '**A review of fault detection and diagnostics methods for building systems**' by **Woohyun Kim**, with **34** citations.
- The journal's 2019 Impact Factor is **1.356**, ranking **42/63** in the **Construction & Building Technology** JCR category.
- The journal's 2019 CiteScore is **2.6**, ranking **32/83** in the **Fluid Flow and Transfer Processes** Scopus category.
- The Journal produced **129** publications in 2019, **10** of which were Open Access.

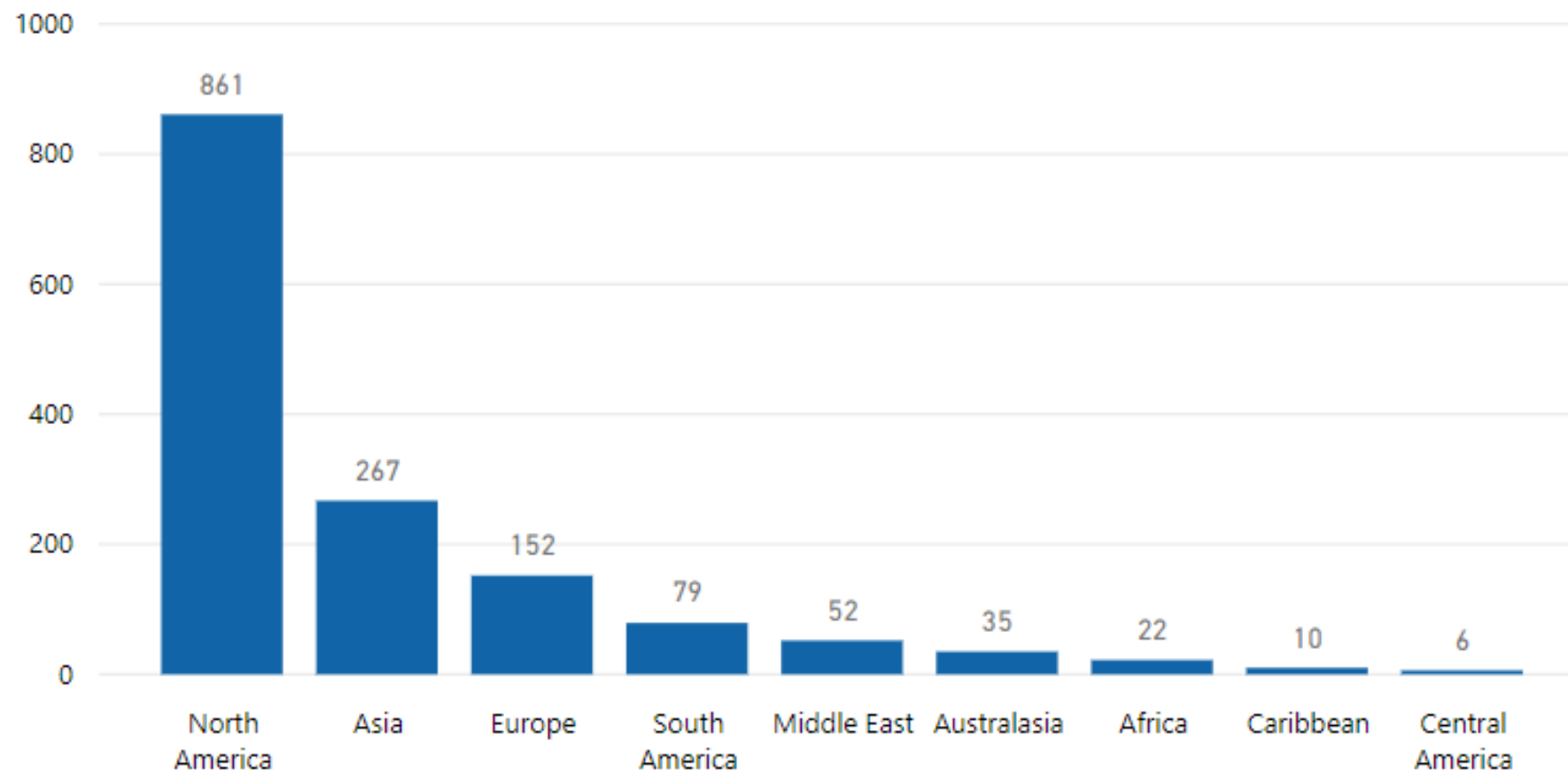
Global Reach – Circulation

Number of Institutions with access via Sales Deal, Subject and Non-Sales Deal Subscriptions

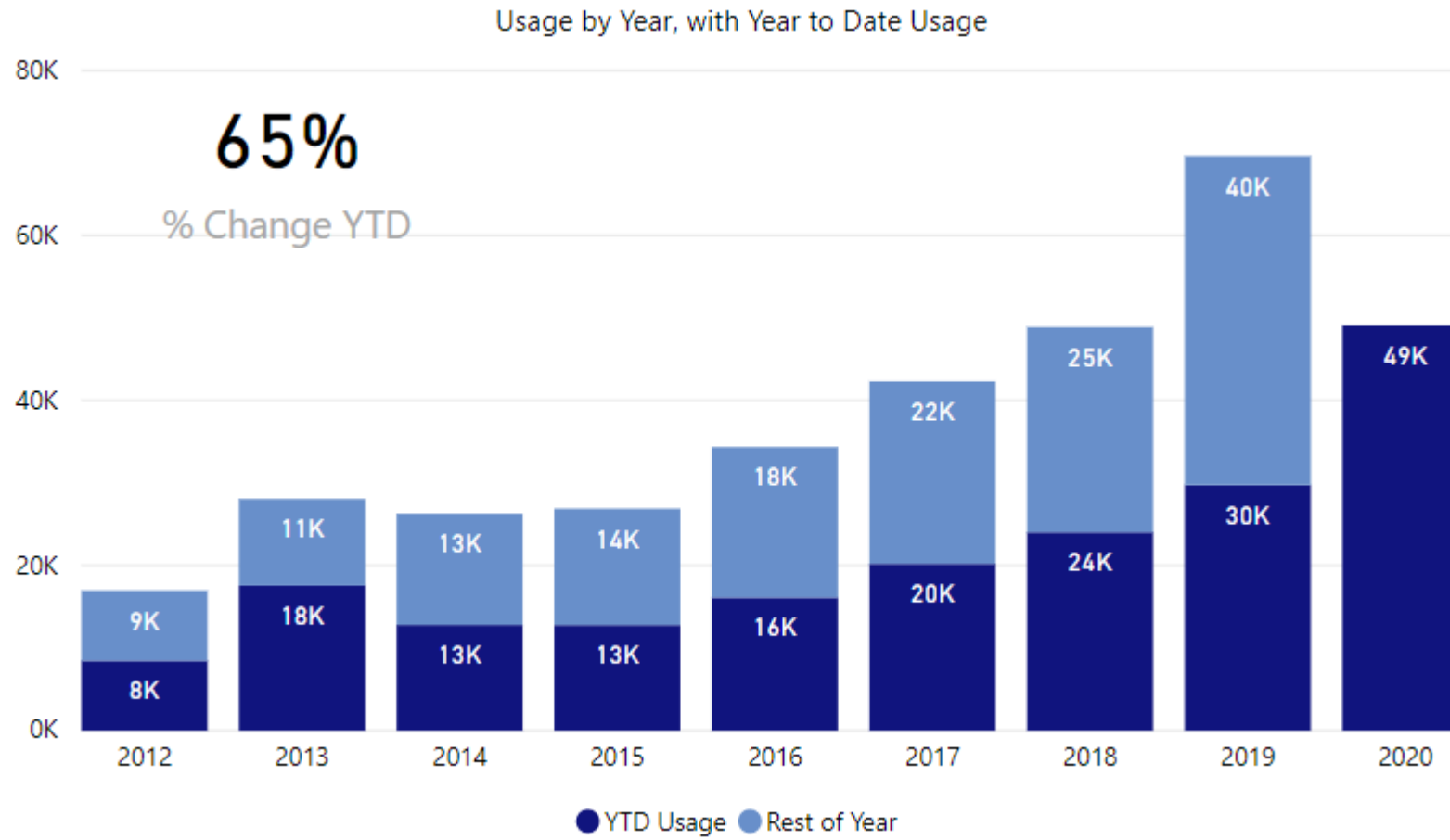


EBSCO Circulation (2019)

EBSCO Coverage 2019 by Region

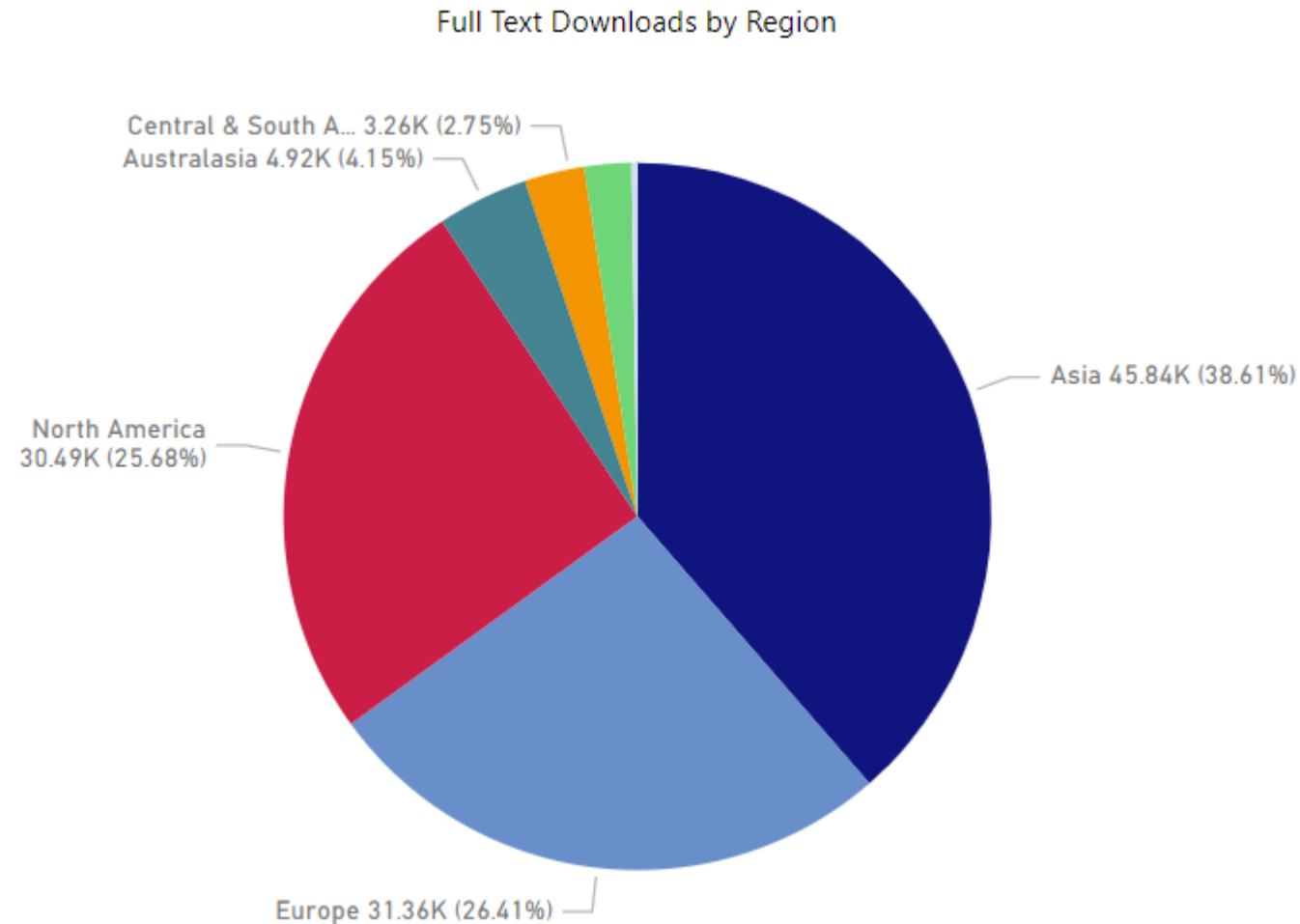


Article Downloads – Taylor & Francis Online (TFO) Usage



Percentage Change YTD is from 2019 YTD to 2020 YTD.

Article Downloads by Region (2019-2020 Year to Date)



Most Downloaded Articles in the Past 12 Months (from Past Three Volume Years)

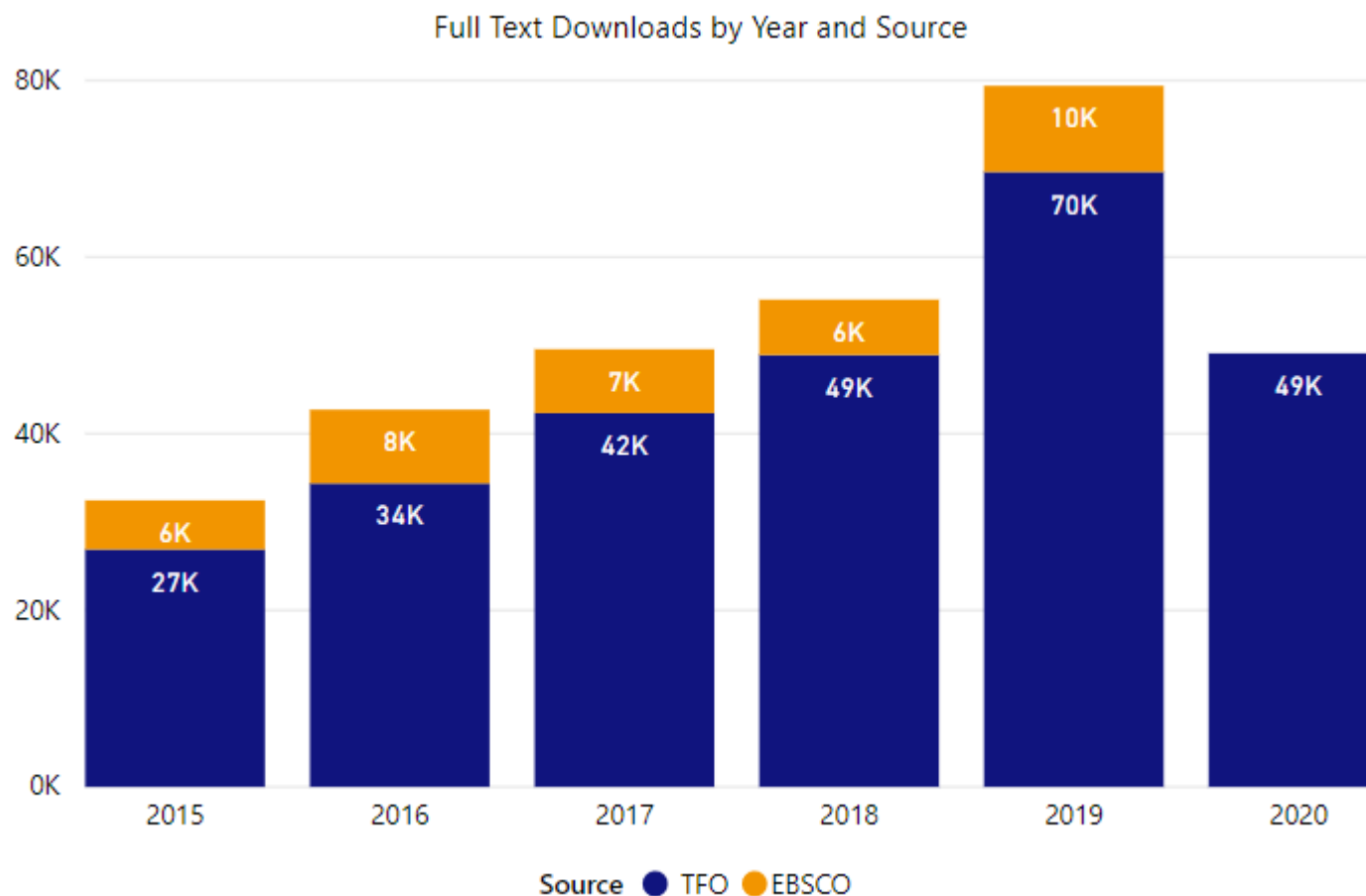
Article Title	Author	Volume, Issue	Number of Downloads	Open Access
Equipment power consumption and load factor profiles for buildings' energy simulation (ASHRAE 1742-RP)	Omer Sarfraz & Christian K. Bach	Volume 24 Issue 10	2,236	Yes
Traffic noise level predictions for buildings with windows opened for natural ventilation in urban environments	Moon Keun Kim, et al.	Volume 23 Issue 5	1,618	Yes
Design optimization and validation of high-performance heat exchangers using approximation assisted optimization and additive manufacturing	Daniel Bacellar, et al.	Volume 23 Issue 6	1,530	Yes
Supermarket system characteristics and operating faults (RP-1615)	Alireza Behfar, et al.	Volume 24 Issue 10	1,325	Yes
Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705)	Mehdi Mehrabi & David Yuill	Volume 25 Issue 6	1,318	Yes
Development of New Low-GWP Refrigerants–Refrigerant Mixtures Including HFO-1123	Mai Hashimoto, et al.	Volume 25 Issue 6	1,193	Yes
A heat transfer and friction factor correlation for low air-side Reynolds number applications of compact heat exchangers (1535-RP)	Pradeep Shinde & Cheng-Xian Lin	Volume 23 Issue 1	1,106	Yes
Ventilation strategies and air quality management in passenger aircraft cabins: A review of experimental approaches and numerical simulations	Hossam A. Elmaghraby, et al.	Volume 24 Issue 2	1,091	No
HVAC control loop performance assessment: A critical review (1587-RP)	Zheng O'Neill, et al.	Volume 23 Issue 4	933	Yes
Window and door opening behavior, carbon dioxide concentration, temperature, and energy use during the heating season in classrooms with different ventilation retrofits—ASHRAE RP1624	Anna Heebøll, et al.	Volume 24 Issue 6	931	Yes

Top Institutions by Downloads (Past 12 Months)

Institution name	Number of Downloads
The University of Manchester	1,232
Hong Kong Polytechnic University	946
Tongji University	903
Tianjin University	842
Purdue University	730
Xian Jiaotong University	707
Purdue University Calumet	705
First Affiliated Hospital of Medical College of Xi'an Jiaotong University	644
National Renewable Energy Lab	621
Oklahoma State University - Stillwater and Tulsa Oklahoma State University	604



Note: Consortia have been removed from this table.

Article Downloads by Source



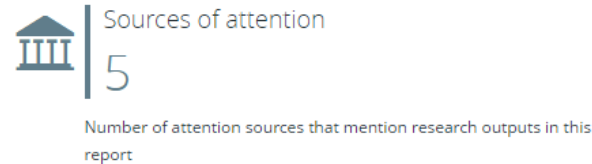
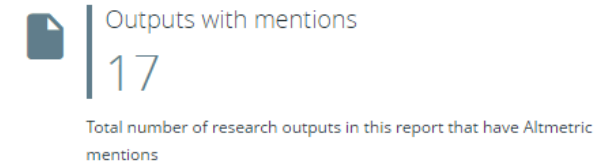
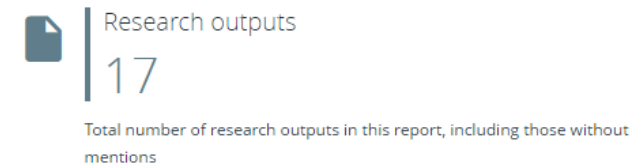
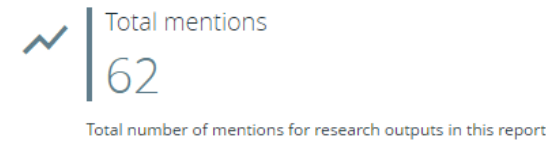
Altmetric Analysis – Top Altmetric Scores (Past Year)

Report generated July 2020

RANK	ATTENTION SCORE	RESEARCH OUTPUT			
#1		Fouling and Its Effects on Air-cooled Condensers in Split System Air Conditioners (RP-1705) Article in Science and Technology for the Built Environment , June 2019	#6		Engineering control of respiratory infection and low-energy design of healthcare facilities Article in Science and Technology for the Built Environment , January 2015
#2		Integrating IAQ control strategies to reduce the risk of asymptomatic SARS CoV-2 infections in classrooms and open plan offices Article in Science and Technology for the Built Environment , July 2020	#7		IAQ 2016: Defining indoor air quality: Policy, standards and best practices Article in Science and Technology for the Built Environment , December 2017
#3		Modeling infection risk and energy use of upper-room Ultraviolet Germicidal Irradiation systems in multi-room environments Article in Science and Technology for the Built Environment , January 2015	#8		Addressing the building energy performance gap with measurements Article in Science and Technology for the Built Environment , February 2020
#4		Meta-analysis of summertime indoor temperatures in new-build, retrofitted, and existing UK dwellings Article in Science and Technology for the Built Environment , June 2019	#9		Characterization, testing, and optimization of load aggregation methods for ground heat exchanger response-factor models Article in Science and Technology for the Built Environment , September 2019
#5		Indoor air quality in 24 California residences designed as high-performance homes Article in Science and Technology for the Built Environment , January 2015	#10		Development of a test method to determine the effectiveness of UVC systems on commercial cooking effluent (RP-1614) Article in Science and Technology for the Built Environment , July 2020

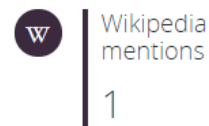
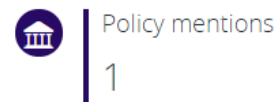
Overview and Source Breakdown of Altmetric Attention Score (Past Year)

REPORT OVERVIEW



ATTENTION SOURCE BREAKDOWN

The number of mentions from each source that Altmetric has tracked for the research outputs in this report.



Link to Altmetric Report

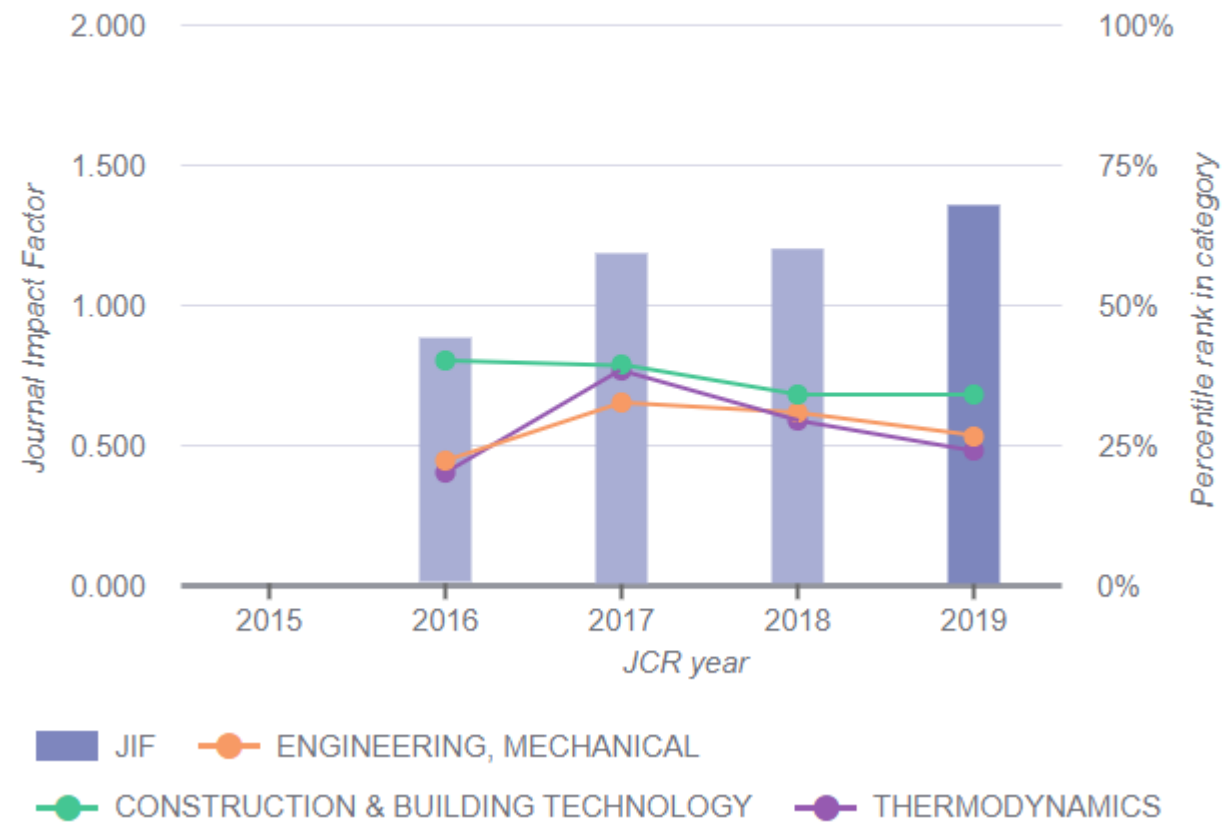
The link below can be used to access a report containing the latest Altmetric attention to your journal. This data is updated daily, so can be used to keep track of trending articles.

<https://www.altmetric.com/explorer/report/269fecca-3cf3-409d-956b-56161e477766>

Impact Factor Chart

1.356

2019 Journal Impact Factor



Impact Factor & Ranking

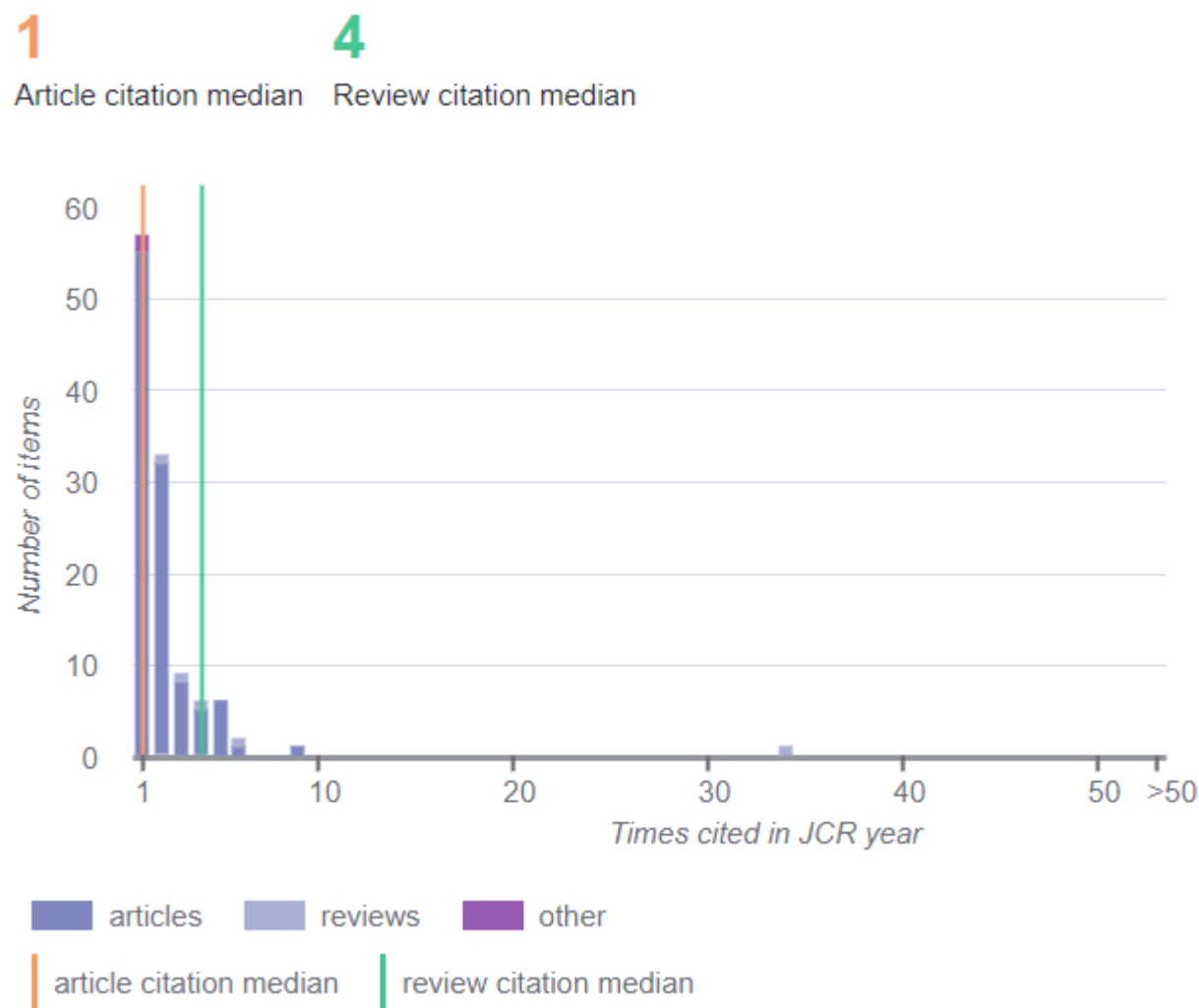
Impact Factor Year	Impact Factor	Rank
2013	0.745	31/58 Construction & Building Technology, 36/55 Thermodynamics, 75/126 Engineering, Mechanical
2014	0.673	35/59 Construction & Building Technology, 43/55 Thermodynamics, 92/130 Engineering, Mechanical
2015	0.871	37/61 Construction & Building Technology, 43/58 Thermodynamics, 86/132 Engineering, Mechanical
2016	0.928	37/61 Construction & Building Technology, 47/58 Thermodynamics, 97/130 Engineering, Mechanical
2017	1.183	38/62 Construction & Building Technology, 37/59 Thermodynamics, 87/128 Engineering, Mechanical
2018	1.199	42/63 Construction & Building Technology, 43/60 Thermodynamics, 90/129 Engineering, Mechanical
2019	1.356	42/63 Construction & Building Technology, 47/61 Thermodynamics, 96/130 Engineering, Mechanical

2019 Impact Factor Self-Citation Rate: 32 self-citations out of 274 – 11.67%.

Top Cited Articles – 2019 Impact Factor

Article Title	First Authors	Volume	Issue	Document Type	Citations in 2019
A review of fault detection and diagnostics methods for building systems	Kim, Woohyun	24	1	Review	34
Development and implementation of a thermostat learning algorithm	Gunay, H. Burak	24	1	Article	9
Improvements on the American Society of Heating, Refrigeration, and Air-Conditioning Engineers Handbook equations for sizing borehole ground heat exchangers	Li, Min	23	8	Article	6
Review and analysis of fuel cell-based, micro-cogeneration for residential applications: Current state and future opportunities	Milcarek, Ryan J.	23	8	Review	6
Development of prototypical buildings for urban scale building energy modeling: A reduced order energy model approach	Yang, Guang	24	1	Article	5
Development of a standard capture efficiency test method for residential kitchen ventilation	Kim, Yang-Seon	24	2	Article	5
Multi-objective optimization of thermo-acoustic devices using teaching-learning-based optimization algorithm	Rao, Ravipudi Venkata	23	8	Article	5
Sizing heating, ventilating, and air-conditioning systems under uncertainty in both load-demand and capacity-supply side from a life-cycle aspect	Huang, Pei	23	2	Article	5
Studying the performance of a dehumidifier with adsorbent coated heat exchangers for tropical climate operations	Oh, Seung Jin	23	1	Article	5
Heat and mass transfer performance comparison between a direct-contact liquid desiccant packed bed and a liquid-to-air membrane energy exchanger for air dehumidification	Ge, Gaoming	23	1	Article	5

Article Citation Distribution – 2019 Impact Factor

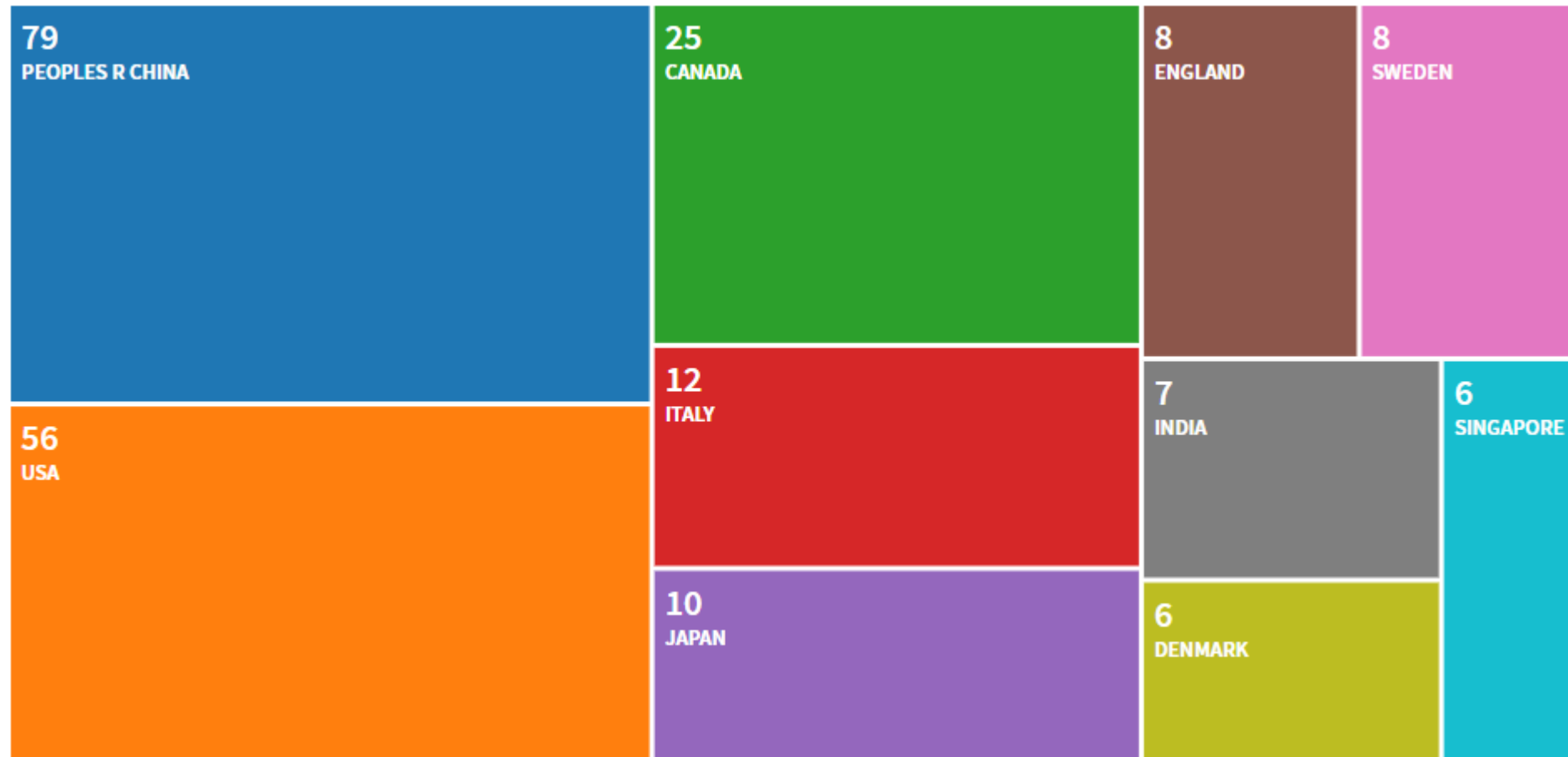


Citing Sources – 2019 Impact Factor



Note: Number of citing articles from each journal.

Citing Regions – 2019 Impact Factor



Note: Shows number of citing articles from each region. Web of Science lists England, Scotland, Wales and Northern Ireland separately.

CiteScore and Ranking

CiteScore	Score	Rank
2015	1.7	18 / 48 Fluid Flow and Transfer Processes, 49 / 101 Environmental Engineering, 49 / 155 Building and Construction
2016	1.7	23 / 53 Fluid Flow and Transfer Processes, 55 / 155 Building and Construction, 56 / 102 Environmental Engineering
2017	1.9	22 / 77 Fluid Flow and Transfer Processes, 60 / 115 Environmental Engineering, 64 / 167 Building and Construction
2018	2.4	27 / 83 Fluid Flow and Transfer Processes, 56 / 124 Environmental Engineering, 63 / 176 Building and Construction
2019	2.6	32 / 83 Fluid Flow and Transfer Processes, 61 / 132 Environmental Engineering, 62 / 174 Building and Construction

Marketing – Objectives

Through various campaigns and the marketing of your journal, our objectives are to:

- Drive and sustain usage
- Demonstrate impact
- Grow international reach
- Attract high quality submissions
- Increase citations
- Increase author and researcher engagement
- Increase membership.

Reaching Readers Emails

In total, 141 STBE articles have been promoted via the RR campaign since January 2019.

Article Title	Contact Count
A study of the effects of water capacity on the thermal performance of water-in-glass evacuated tube solar collectors applied to space heating	2,804
Investigating the influence of different speeds and directions of winds on the performance of split air conditioning systems	1,340
Development of control quality factor for HVAC control loop performance assessment—II: Field testing and results (ASHRAE RP-1587)	1,251
Data-driven energy models for existing VFD-motor-pump systems	1,207
Virtual measurement of the air properties in air-handling units (AHUs) or virtual re-calibration of sensors	1,207
The impact of rock fracturing and pump intake location on the thermal recovery of a standing column well: model development, experimental validation, and numerical analysis	1,141
Study of thermal performance of an air source heat pump heating for suburban residential buildings in Beijing	1,081
Determine the absolute roughness of phenolic duct (RP-1764)	1,004
A numerical analysis and optimization of the dynamic performance of a multipurpose solar thermal system for residential applications	997
Applicability of Control Algorithms for Variable Water-flow Control Practice of Central Air-conditioning Cooling Water System	985

Alerts and Social Media

New Contents Alerts:

The journal can be found at **<https://www.tandfonline.com/UHVC>** where anyone can sign up for new contents alerts. Your journal currently has **191** active e-Table of Contents (e-ToC) subscribers.

Social Media

Taylor & Francis has official social media accounts for each of the major subject areas that provides journal level marketing.

- You can find your relevant Taylor & Francis social media feeds here:
 - Twitter: <http://www.twitter.com/TandFSTEM>
 - Facebook: <http://www.facebook.com/TandFScience>
- You can find the social media guide for editors here: **<http://bit.ly/ER-SocialMedia>**

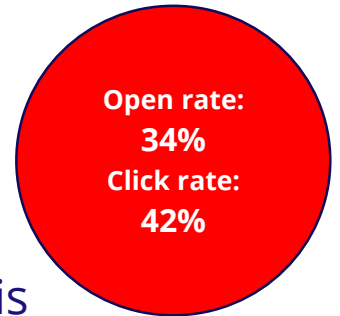
Marketing for Authors

- Authors anniversary emails are sent at 2 weeks, 5 weeks, 3 months, 6 months and 12 months following publication.
- These emails use social sharing buttons to encourage authors to share online, with their own audience, in their own voice.
- Sent to all authors regardless of marketing opt-in status – this is a service email.
- Average open rate of 38% and a click through rate of 8%, considerably higher than industry averages*.



*Current media & publishing industry open rate is 22.15%, click rate 4.61% <https://mailchimp.com/resources/email-marketing-benchmarks/>

Citation Alerts



- Using Colwiz data, we now send citation alert emails to T&F authors where their paper is less than 2 years old, and has been cited by a new article published on TFO. These emails are currently averaging a 34% open rate and 42% click rate.
- This service currently goes to opted-in authors only, though we are investigating including all authors as a service/transaction message.
- To encourage more authors to receive these alerts, please encourage them to check their marketing subscription status at:
<http://pages.email.taylorandfrancis.com/taylorandfrancissubscriptioncenter>

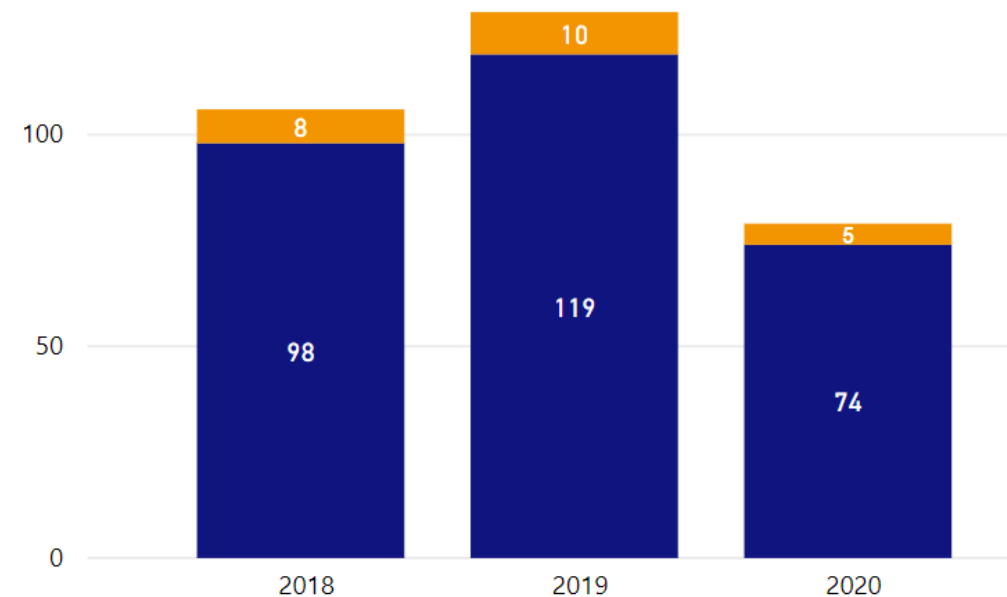
**Current media & publishing industry open rate is 22.15%, click rate 4.61% <https://mailchimp.com/resources/email-marketing-benchmarks/>*

Production – Published Content (Volumes 2018-2020)

Article Type	Distinct Count of Documents
Article	289
Editorial	16
Guest Editorial	4
Correction	2
Corrigendum	2
Addendum	1
Total	314

Number of Articles Published by Volume Year - with OA Split

Open Access Article? ● Non-Open Article ● Open Article



For more information on Open Access and Plan S, please visit:

- <http://authorservices.taylorandfrancis.com/publishing-open-access-with-taylor-francis/>
- <https://editorresources.taylorandfrancis.com/peersupport/coalition-s-plan-s-and-accelerating-oa/>

Production Schedule (January 2019 – July 2020)

Online Issue Published

Issue Number	2019	2020
01	14 February 2019	07 January 2020
02	19 March 2019	30 January 2020
03	19 March 2019	11 February 2020
04	23 April 2019	26 February 2020
05	29 May 2019	22 April 2020
06	08 July 2019	28 May 2020
07	02 August 2019	29 June 2020
08	08 October 2019	
09	29 October 2019	
10	12 December 2019	

Print Issue Published

Issue Number	2019	2020
01-05	27 June 2019	15 May 2020
06-10	19 December 2019	

Page Count Report (Volume Years 2019 and 2020)

Volume Year ▲	Budgeted Pages	Actual Pages	Number of Pages Remaining
2019	1520	1524	-4
2020	1520	1168	352

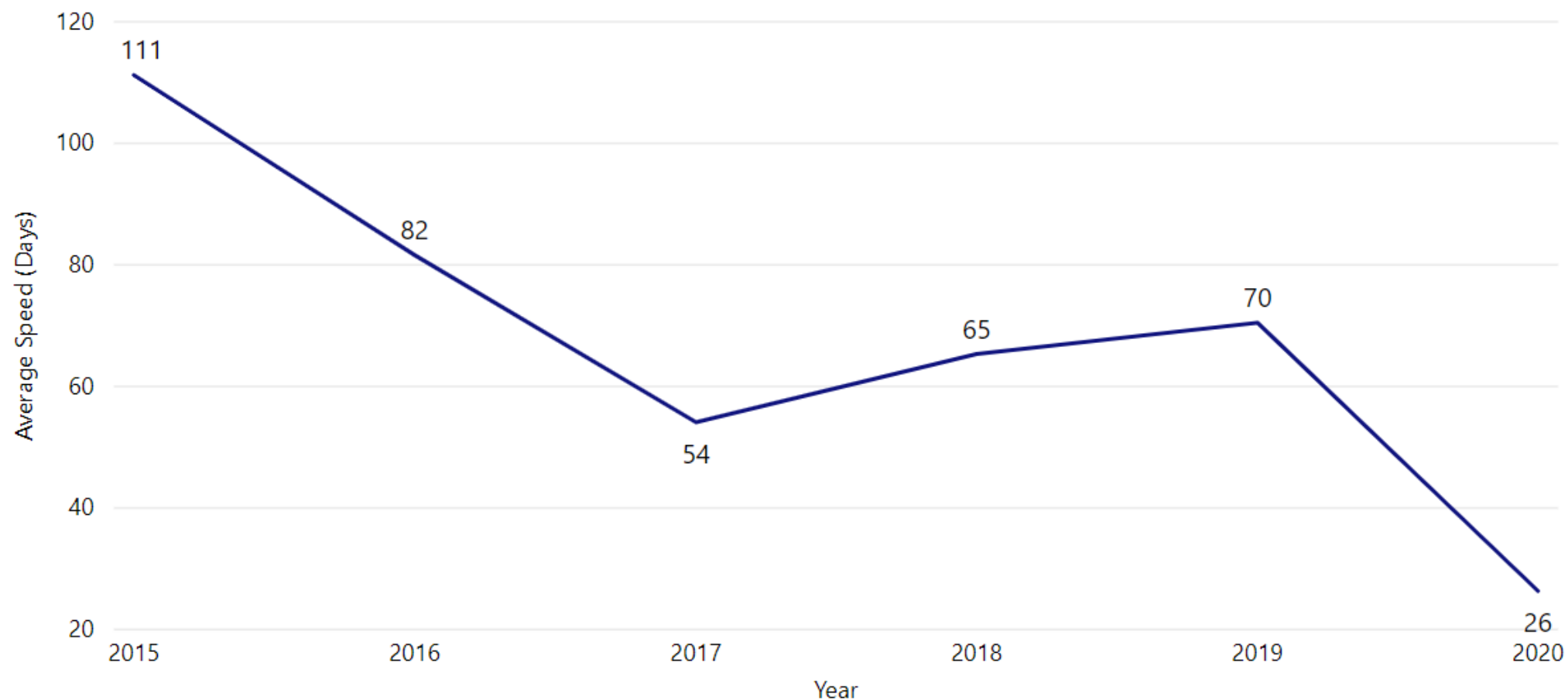
Backlog Report (Volume Years 2019 and 2020)

Manuscript Type	Number of Manuscripts	Number of Typeset Pages
Article	30	431
Total	30	431

The current backlog contains enough articles for the next 2.8 issues.

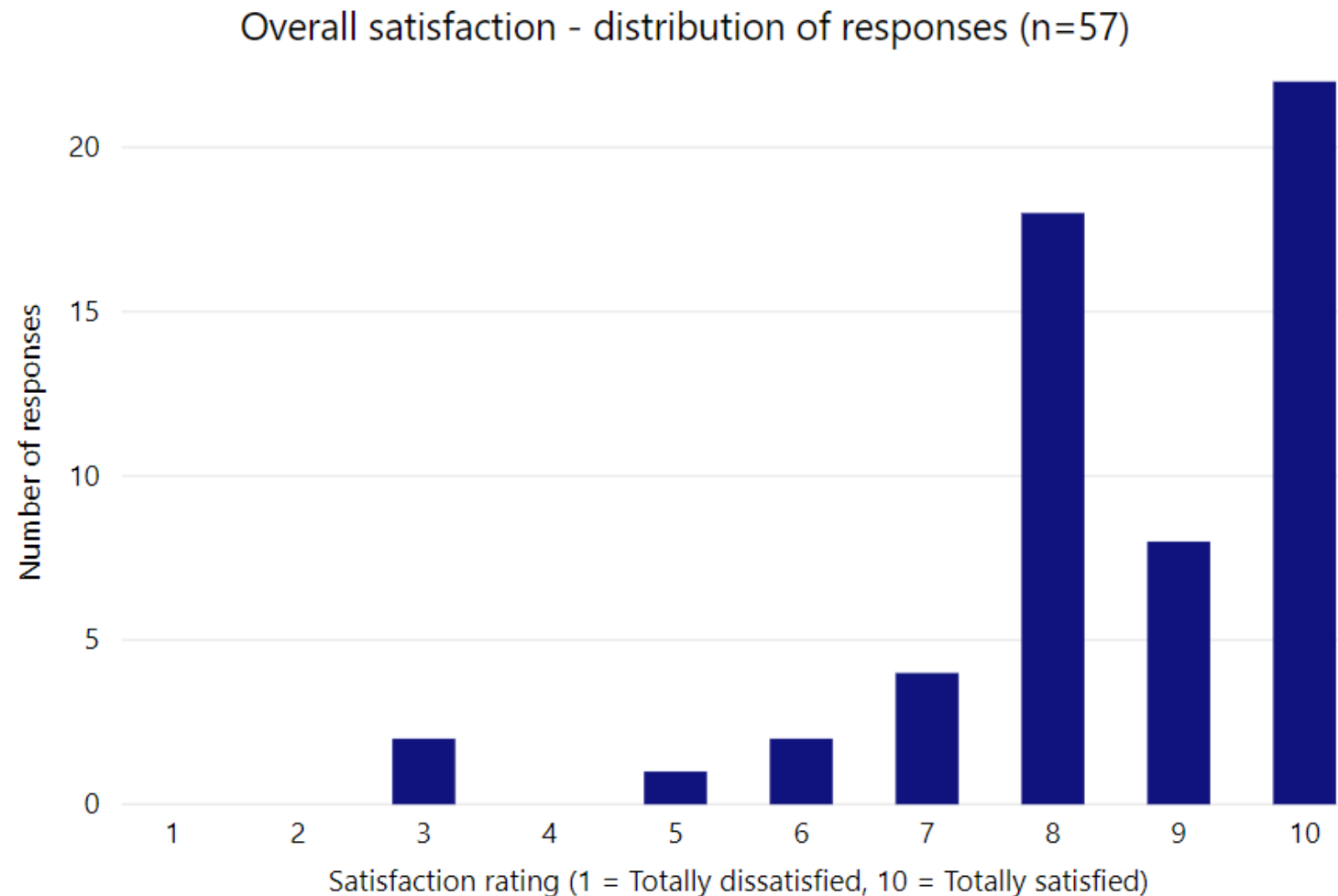
The oldest article not yet assigned to an issue was received in Production on 24 February 2020.

Average Speed of Article Publication*

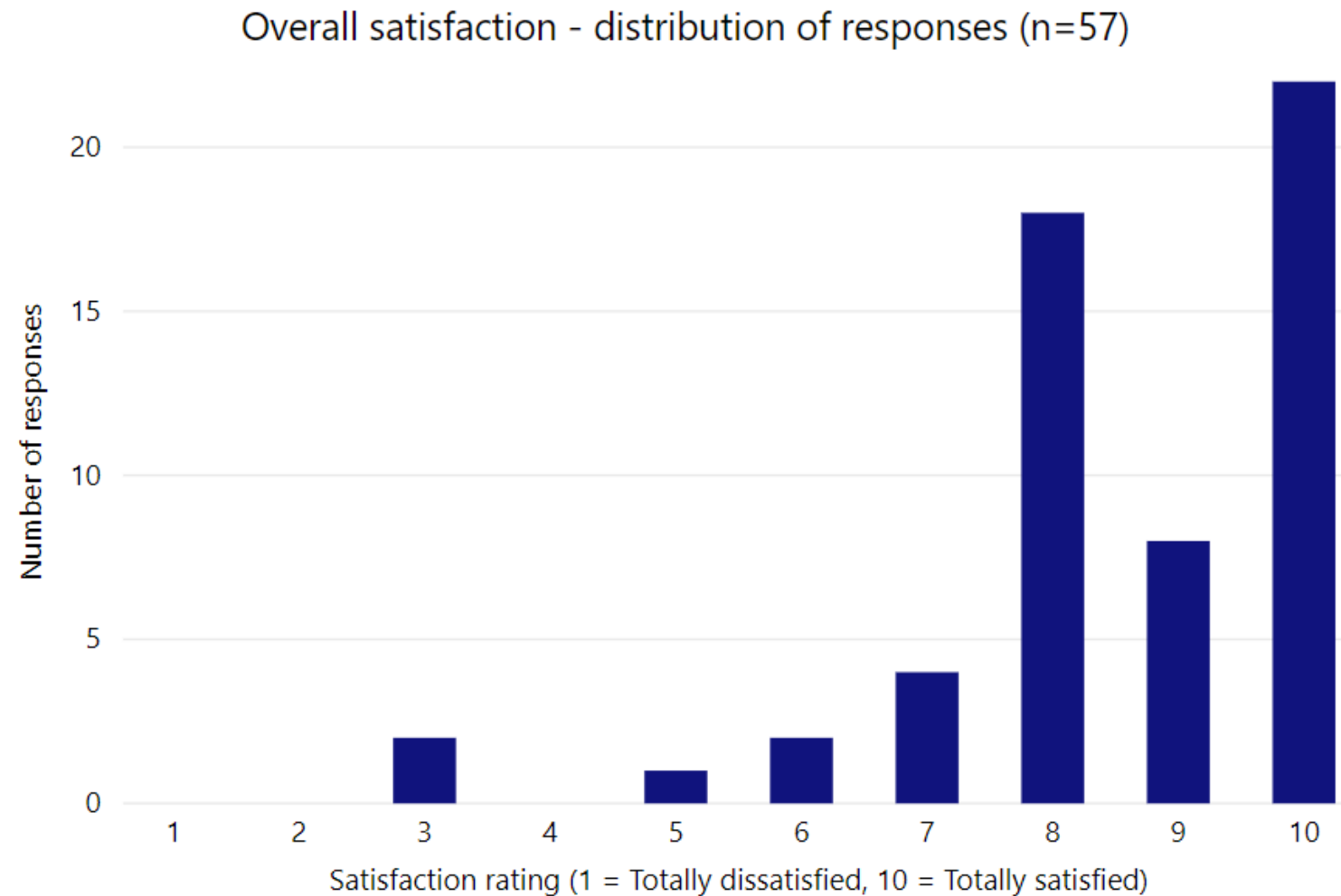


* mean days from submission to Central Article Tracking System (CATS) to online publication.

Author Survey – Overall Satisfaction (2018-2020)



Satisfaction with Refereeing Process (2018-2020)



Resources

News, support and guidance for Editors, authors and Librarians:

EDITORRESOURCES
Supporting Taylor & Francis journal editors

<http://editorresources.taylorandfrancisgroup.com/>

AUTHORSERVICES
Supporting Taylor & Francis authors

<http://authorservices.taylorandfrancis.com>

LIBRARIANRESOURCES
Taylor & Francis supporting librarians

<https://librarianresources.taylorandfrancis.com/>



A bi-monthly campaign designed for Editors.
Sign up here: http://bit.ly/tandf_ppp



Sign up for updates, tips and talking points from **Author Services**, **Editor Resources** and **Librarian Resources** websites straight to your inbox:
<https://authorservices.taylorandfrancis.com/category/insights/>



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[@TaylorandFrancisGroup](#)

Development Initiatives

We need research from around the world to address global challenges. We remain committed, therefore, to supporting emerging region researchers on their publishing journeys.

For more information on the Taylor & Francis development initiatives, please visit:

- <http://taylorandfrancis.com/about/corporate-responsibility/development-initiatives>
- <https://authorservices.taylorandfrancis.com/star>
- <https://librarianresources.taylorandfrancis.com/services-support/development-initiatives>
- <https://www.taylorandfrancis.com/sdgo>



Feedback

We'd love to hear what you think! If you have any feedback or suggestions for improvement, please fill out the below questionnaire using the following link or scan the QR code:

<https://www.surveymonkey.co.uk/r/TTJG7TP>



Journal Contacts

Editorial

- Portfolio Manager – stephanie.loeh@taylorandfrancis.com

Production

- Production Editor – UHVC-production@journals.taylorandfrancis.com

Peer-Review

- Peer Review Help Desk – PRSHelp@tandf.co.uk



Science and Technology for the Built Environment

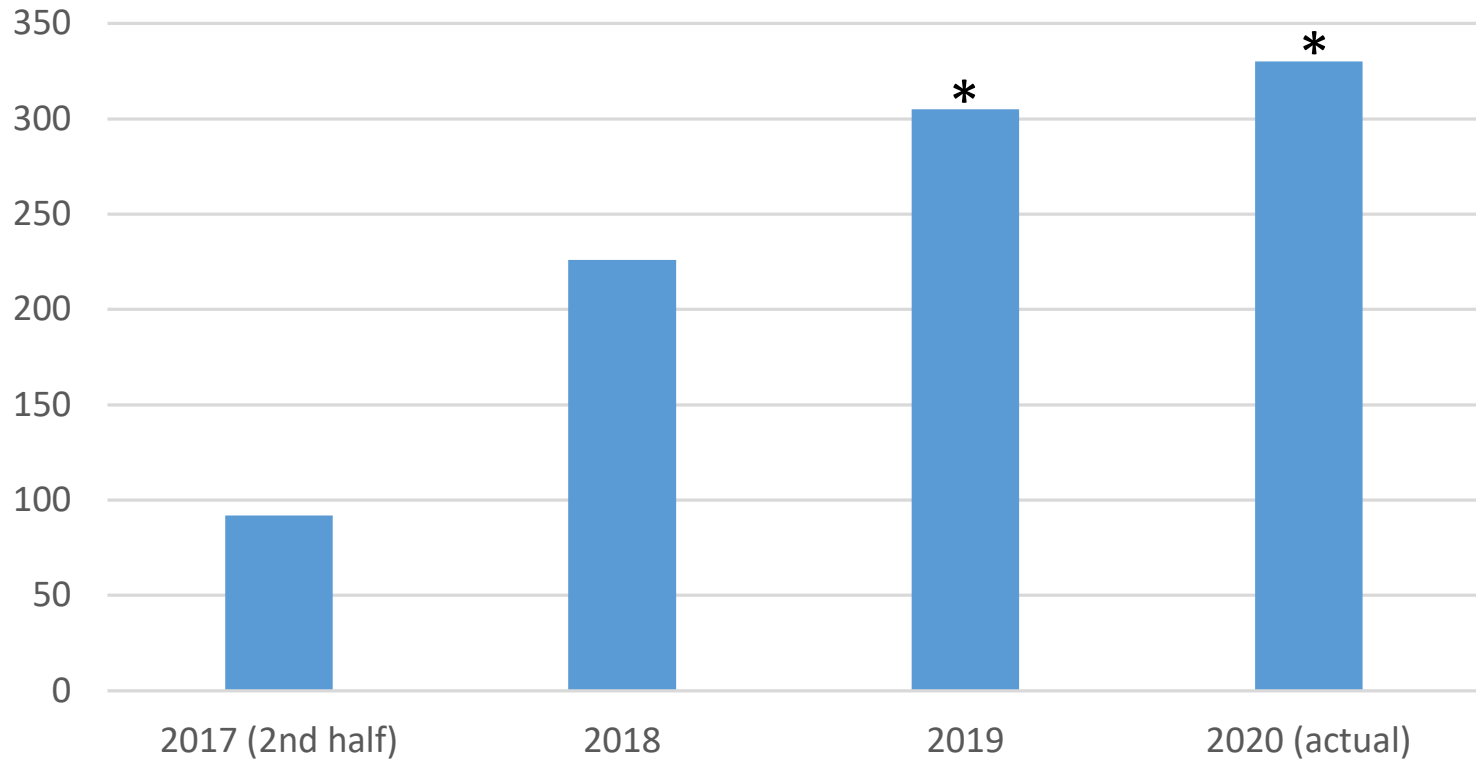
Jeffrey D. Spitler

January 11, 2021

Best paper award

- 10/1: Associate Editors requested to nominate best papers.
- 6 nominations received; JDS nominated 4 additional.
- 11/23 Jury formed: Culp, Owen, Bernier, Toftum
- Jury members ranked the papers; an overall ranking was created.
- 12/18 Jury met and reached a decision.
- 12/23 Recommendation sent to Rhiannon Masterson

Submissions



* 2019 forward are from ScholarOne; 2017 & 2018 come from T&F.

2020

- 330 submissions
- JDS rejected 106 papers
 - Common reasons:
 - Out of scope
 - Case studies
- 108 rejections by recommendation of Associate Editors.
- 105 papers published
- 8 Editorials published

2020 Special Issues

- ASIM 2018
- Flammable Refrigerant Safety
- IAQVEC 2019

2020 Editorial Board Meetings

- First online meetings in July.
- Two meetings to accommodate both hemispheres.
- First meetings with > 90% participation.
- Accomplishments:
 - Two editorials.
 - Reviewer Board launched.
 - Special issues started.

2020 Editorials

- JDS:
 - Introduction & thankyou to Reinhard
 - Reviewing for STBE
 - Addressing the Building Energy Gap with Measurements
- Toward a user-centered built environment (Agee, O'Brien, Day, Brackley)
- Integrating IAQ control strategies to reduce the risk of asymptomatic SARS CoV-2 infections in classrooms and open plan offices (Zhang)
6657 views; 3 references, Altmetric score 200

Misconduct allegation (2)

- Complaint that paper published in a special issue had largely redone the same work as previously reported in an STBE paper.
- Mostly correct.
- Mitigating factor: Authors of paper 2 recommended an author of paper 1 as a reviewer.
- Paper 2 did have some new (different) work; opinion of significance varies.
- Paper 2 received reasonably thorough reviews, though no one flagged the similarities.
- Resolution: Paper 2 was revised to show relationship to Paper 1 more clearly.
- Authors of Paper 1 were satisfied with the outcome.
- Thanks to Alexa and Jørn Toftum

Associate Editors

- Two Associate Editors with terms expiring this year +1 who might prefer to be replaced:
 - Richard De Dear (I will ask to stay on)
 - Chandra Sekhar (I will check to see if he wishes to stay on.)
 - Roberto Lamberts (Stayed on as a favor, but I think would prefer to be replaced.)

Reviewer Board

- Concept:
 - Recruit members from junior and mid-level faculty, recent PhD graduates.
 - Commitment to review ~4 papers per year in a timely fashion (2 weeks or less).
- Current status:
 - Invited 53 members
 - 38 accepted preliminary invitation
 - These 38 are now on masthead and AEs have details.
 - 9 additional members have just been added.

Reviewer Board

Name	Affiliation		Name	Affiliation
Ahmad Abbas	GIK Institute of Engineering Sciences and Technology, Topi, KPK, Pakistan		Akram Abdul Hamid	Division of Building Physics, Lund University, Lund, Sweden
Philip R. Agee, Ph.D	Virginia Tech, Blacksburg, VA, USA		Maomao Hu	Department of Engineering Science, University of Oxford, Oxford, UK
Maria Alberdi-Pagola	CP Test A/S		Ongun Berk Kazanci	International Centre for Indoor Environment and Energy, Department of Civil Engineering, Technical University of Denmark, Kgs. Lyngby, Denmark
Vikrant C. Aute	University of Maryland, College Park, Maryland, USA		Jae-Weon Jeong	Professor of Department of Architectural Engineering, Hanyang University, Seoul, South Korea
Christian K. Bach	Oklahoma State University, Stillwater, Oklahoma, USA		Michael G. Kent	Berkeley Education Alliance for Research in Singapore, Singapore
Cao Bin	Tsinghua University, Beijing, China		Meng Kong	Syracuse University, Syracuse, NY, USA
Mariya P. Bivolarova	Technical University of Denmark, Kgs. Lyngby, Denmark		Hoseong Lee	Korea University, Seoul, Korea
Craig R. Bradshaw	Oklahoma State University, Stillwater, Oklahoma, USA		Hangxin Li	The Hong Kong Polytechnic University, Kowloon, Hong Kong SAR
Jayson Bursill	Carleton University, Ottawa, Ontario, Canada		Fang Liu	Shandong Jianzhu University, Jinan, Shangdong, China
Jie Cai	University of Oklahoma, Norman, Oklahoma, USA		Xiaobing Liu	Oak Ridge National Laboratory, Oak Ridge, TN, USA
Shanshan Cai	Huazhong University of Science and Technology, Wuhan, Hubei, China		Matt S. Mitchell	National Renewable Energy Laboratory, Golden, CO
Yimin Chen	Lawrence Berkeley National Laboratory, Berkeley, CA, USA		Mohamed Ouf	Concordia University, Montreal, Quebec, Canada
Massimo Cimmino	Polytechnique Montréal, Montréal, QC, Canada		Jingjing Pei	Tianjin University, Tianjin, China
Moshood O. Fadeyi	Singapore Institute of Technology, Singapore		Long T. Phan	Florida International University, Miami, Florida, USA
Cheng FAN	College of Civil and Transportation Engineering, Shenzhen University, China		Mohammad Reza Safaei	Civil and Environmental Engineering Department, Florida International University, Miami, FL, USA
Jamie P. Fine	University of Toronto, Toronto, Ontario, Canada		Omer Sarfraz	Johnson Controls, York, Pa, USA
Victor Fransson	Division of Building Services, Department of Building- and Environmental Technology, Faculty of Engineering, Lund University, Sweden		Jialei Shen	Syracuse University, Syracuse, NY, USA
Brian M. Fronk	Oregon State University, Corvallis, Oregon, USA		Andrew Sommers, PhD, Assoc	Department of Mechanical and Manufacturing Engineering, Miami University, Oxford, Ohio, USA
Yangyang Fu	Texas A&M University, College Station, Texas, USA		Rui Tang	Lawrence Berkeley National Laboratory, Berkeley, CA, USA
Wenjie Gang	Huazhong University of Science and Technology		Despoina Teli	Division of Building Services Engineering, Department of Architecture and Civil Engineering, Chalmers University, Gothenburg, Sweden
Zhi Gao	Ph.D, Associate Professor, School of Architecture and Urban Planning, Nanjing University, Nanjing, China		Marianne F. Touchie	University of Toronto, Toronto, Ontario, Canada
Hua Ge	Concordia University, Montreal, Canada		Adam D. Wills	National Research Council Canada, Ottawa, Ontario, Canada
Sara Gilani	Natural Resources Canada, Ottawa, Ontario, Canada		Dr. Xin Zhang	School of Architecture, Tsinghua University, Beijing, China
Burak Gunay	Carleton University, Ottawa, Ontario, Canada			

Special Issues – 2021 and beyond

- Thermal Science and Technology 2019: 8 papers published (January 2021)
- Clima 2019: 53 invited; 16 submitted; 4 rejected
- Building Simulation 2019: 8 in review; 1 accepted
- BPACS 2020: 15 invited; 1 submitted
- Field-measured Performance of Heating, Cooling and Ventilating Systems. (Last date for submissions 12/1/2021)

It's possible one or two of these will come to fruition in 2021.

General Plans

- Arranging two Editorial Board meetings.
- Pandemic is going to delay or eliminate some opportunities for special issues based on conferences.
 - Will ask the Editorial Board to help identify non-conference-based topical issues.

Needs attention

- Assigning Open Access status