
TAB
SOCIETY AND COUNCIL REVIEW COMMITTEE (SCRC)
Review Report

Society: Ultrasonics, Ferroelectrics, and Frequency Control
[UFFC-20]
Date of Review: 20 November 2024

IEEE Proprietary, 2024

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Notes About This Report

This report is based on the Society report and the discussions held between the SCRC members and the Society representatives during the Society review meeting. The report is prepared with three main purposes in mind:

- Provide feedback and recommendations to the Society/Council to ensure they remain the top organizational unit in their field of interest,
- Help the Societies/Councils in any area they need help, and
- Share best practices among Societies and Councils.

Color coding used for providing the feedback:

URGENT CRITICAL to address deficiency in operations, comply with IEEE policies, etc.

- Initial action required soon (<6 months)
- Evidence must be provided in response – this will be used by SCRC to communicate to TMC

ESSENTIAL to meet expectations for IEEE, professional community

- Action expected to be completed within one year, and notification provided
- Evidence must be provided in response – this will be used by SCRC to communicate to TMC

HIGHLY RECOMMENDED to create positive change for benefit of S/C

- Expected response to review, action within next review cycle

RECOMMENDED considered helpful advice that may enhance an aspect of S/C operations

- Response and action optional

The SCRC is dedicated to continuous improvement of the review process and welcomes society representatives' feedback on the revised report.

*The SCRC recently added hyperlinks throughout the report for the S/C edification. However, our documents require a secure sign in. **PLEASE copy and paste the links** into your browser once you have signed into the Technical Activities website.*

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SUMMATION	UFFC-20	DIRECTION		
		Trending Up	Stable	Trending Down
POSITION	Strong			
	Solid	CONF, FIN, GOV	PSO, EDU, STDS, TCS, PUBS	MEM
	Weak			

			BRIEF COMMENTS TO EXPLAIN RATING
Section	Topic	Position	Direction
3	Purpose, Strategy, Operations (PSO)	Robust strategic planning and operations planning approaches.	There is no need for any major change to strategic and operational planning.
4	Governance (GOV)	Solid succession of officers, with many good candidates, plus free open elections by the membership.	Bylaws and Constitution revised and approved in 2024. Establishing Fellow Nominations committees for all three sectors of UFFC.
5	Standards (STDS)	Solid portfolio in terms of the number of active standards (IEEE-SA) projects and active published standards.	Steady stream of willing participants and contributors ensures development of high-quality market-relevant standards.
6	Conferences (CONF)	Limited but well-focused portfolio of conferences, clear management	Slightly trending up, new tools, new events, broader industry engagement
7	Publications (PUBS)	Solid portfolio, but the open journal like many open journals is losing money.	The society is working to improve the health of the open journal by changing its scope.
8	Education (EDU)	Solid portfolio, although most items hidden from public view or non-verifiable.	Strategic plan does not clearly articulate a vision for educational activities. No clear directional change can be identified.
9	Technical Committees (TCS)	Three well-established TCS, closely aligned with the Society's technical fields-of-interest.	Consider adopting standardized operating procedures, shorten TC chair term limits, and create a framework to rapidly assess emerging technical trends.
10	Membership (MEM)	Stagnant total membership.	No representation in Region 9. Needs attention.
11	Finances (FIN)	Appropriate, comprehensive and transparent financial management, reporting and oversight/monitoring processes.	Opportunities to further adapt and strengthen budgeting processes and broaden solicitation of proposed initiatives beyond AdCom

1. SCRC Summary Comments

UFFC is a strong society of about 2,200 members worldwide. The Society's three main FOI's are Ultrasonics, Ferroelectrics and Frequency Control. These are all treated with equal priority in focus, organizational structure and priority (s.a conferences, publications, TC). UFFC is a good model for a society covering multiple technologies or technical fields-of-interest. UFFC rotates the time zones of their AdCom meetings to provide equal opportunity for participation by representatives of all regions.

The Society is commended for their Diversity, Equity and Inclusion awareness efforts, which have been recognized with the 2023 TAB DEI Award. UFFC has a Volunteer Engagement Committee established to increase diversity and applicant pool for appointments.

UFFC has rich interactions with organizations outside of IEEE that overlap their FOI. They also overlap with 2 societies and 3 councils; they participate in each other's events and some co-sponsored transactions. All UFFC conferences are hybrid. They have an outreach ambassador for each conference.

UFFC uses CATAVault for their presentations (webinars, university lectures, tutorials, conference presentations etc). They use this as a member resource, improving access to education and knowledge in their FOI.

UFFC's strategic plan not only includes its nine strategic goals but also the operational implementation of them. UFFC has considerable reserves, now aiming for zero budgeting and uses initiative funding for strategic initiatives.

1. Society comments

UFFC-S thanks the SRC for their constructive comments and suggestions, which are helping us accelerate the changes in our operations that are already underway and implement others. We are confident that these changes will strengthen the Society and welcome the SRC's comments.

2. Purpose, strategy and operations

SCRC comments

The Society's Field of Interest (FOI) is substantially the same across the SCRC Report, the TAB Manual, the website, and the Constitution, differing slightly in format and punctuation.

The Society provided its strategic plan, which includes not only its nine strategic goals but also the operational requirements detailing who needs to do what to achieve them. The process for developing and updating the strategic plan is also included. However, there are no stated schedules or costs associated with implementing the strategic goals. Some goals may not require funding or a detailed schedule.

The Society employs two approaches for updating its strategic plan: one for major updates and another for minor updates. The strategic plan is generally valid for two years.

The Society's technical program committees for its flagship symposia determine which new technical areas to include in the symposia and the Society's publications. This approach has introduced several new technical areas into its symposia, ensuring that audiences stay current with emerging technologies and research areas.

The Society hosts special events and networking opportunities at its flagship conferences, catering to the full range of IEEE's target demographics.

The Society's FOI overlaps with those of two societies and three councils. Participation in each other's events and co-sponsorship of transactions are the primary outcomes. No issues have arisen in the last five years.

Many other organizations outside IEEE also have FOI overlaps with the Society. However, a rich set of interactions exists between and among them. These interactions include joint technical program committees, joint meetings, presentations, and co-sponsorships. While there is no formal process for selecting entities to collaborate with, such interactions are encouraged.

The Society noted: "Society representatives at the TAB meetings have raised concerns regarding IEEE's responsiveness, timeliness, and flexibility in contract and payment procedures. We would greatly appreciate it if these issues were addressed by IEEE."

Recommendations to Society

- **Recommended:** The SCRC recommends the Society consider adding, required schedule and funding, as appropriate, for implementing its strategic goals. This could be considered a detailed operations plan.
- **Recommended:** The SCRC recommends the Society consider its process for vetting interactions with non-IEEE entities.
- **Recommended:** The SCRC recommends the Society review the November 2024 TAB agenda Item 43 webinar on contracting and payments updates (<https://agd.ieee.org/mpt/Agenda.aspx?eid=18950>) for insight on items as noted in the SCRC report Section 3.n.

Recommendations to TAB

None

Recommendations to IEEE

None

Society comments

The Society will create a separate Operations Plan, which will provide details on the implementation of goals, including schedules and funding where appropriate. The Strategic Plan will focus on outlining these goals.

The Society will consider implementing a formal procedure for vetting interactions with non-IEEE entities.

The Society's leadership (President, President-elect, Past President, and VP of Finance) attended the webinar on Contracts and Payments held on November 4th.

3. Governance

SCRC comments

The UFFC Constitution and Bylaws were revised and approved in 2024. They are compliant with IEEE regulations, until the next time IEEE changes the Fellows selection rules.

Constitution (9 pages)

AdCom shall consist of not more than 24 Voting Members, including 12 Elected AdCom Members plus not more than 12 UFFC-S Officers. Officers shall be the President, President-Elect, Past President; the Vice Presidents for Ultrasonics; Ferroelectrics; Frequency Control; Symposia; Finance; Education; Community, Connection & Diversity; Publications & Publicity; and the Secretary/Treasurer.

President Elect automatically becomes President after 2 years.

Four Elected AdCom Members elected each year by UFFC-S voting members. 3-year terms. 6-year term limit.

Bylaws (17 pages)

"AdCom shall meet at least twice a year." Currently, UFFC AdCom meets twice in person (in conjunction with technical conferences), plus one virtual meeting.

Bylaws specify that the total number of AdCom nominees shall be at least eight for 4 available positions. It is easy to find candidates, because an active Volunteer Engagement committee helps to recruit them.

AdCom Members are elected by a ballot of all UFFC-S voting members.

The President-Elect is elected by vote of AdCom. There are at least 2 (two) nominees.

The terms of both the President and the President-Elect shall be two years. The President-Elect assumes the Presidency at the conclusion of the outgoing President's term.

UFFC-S Officers shall consist of the President, President-Elect, eight Vice Presidents, Secretary/Treasurer (combined or separate positions), and the Past President.

There shall be eight Vice Presidents as defined in the Constitution: Ultrasonics, Ferroelectrics, Frequency Control, Publications & Publicity, Symposia, Finance, Education, and Community, Connection, & Diversity.

The Executive Committee (ExCom) shall consist of the UFFC-S Officers, namely, the President, President-Elect, eight Vice Presidents, Secretary/Treasurer (combined or separate positions), and the Past President.

The Chairs of the first eight listed Standing Committees are Society Vice Presidents and are Voting Members of AdCom.

The Fellows Committee is described in detail in the Bylaws as, “shall review Fellow nominees on behalf of the Society for the IEEE Fellows Committee. The President will appoint a Committee Chair and a Vice-Chair (if applicable), this appointment should be approved by the AdCom. It is required that all the members have prior experience with Society governance and matters. Chairs shall not serve for more than two consecutive terms. Chairs may serve as Evaluators for one additional year, immediately after having served as Chairs. Evaluators and Vice-Chairs (if any) shall not serve for more than three consecutive years. All members of this Committee, including the Chair, must be Fellows of the IEEE and members of the UFFC-S in good standing for at least the previous two years. Other eligibility requirements are: etc.”

There are too many requirements to easily keep current with IEEE’s ever improving rules for Fellow selection. It is better to have a general statement like, “The membership requirements, demographic recommendations, and responsibilities of this committee, including term limits of committee members, shall be as described in the IEEE Fellow Committee Operations Manual.”

There is no Fellow Nominations committee in the Bylaws. There is a Nominations committee for Ultrasonics. UFFC is moving toward Nominations committees for Ferroelectrics and for Frequency Control.

Table listing AdCom membership in 4. d) lacks gender, YP, industry, etc. There is no way to judge the achievement of diversity goals.

Recommendations to Society

- **Recommended:** The UFFC Bylaws are too specific regarding the Fellows Committee. There are too many requirements to easily keep current with IEEE’s ever improving rules for Fellow selection. It may be better to have a general statement like, “The membership requirements, demographic recommendations, and responsibilities of this committee, including term limits of committee members, shall be as described in the IEEE Fellow Committee Operations Manual.”
- **Recommended:** Establish Fellow Nominations Committees for Ferroelectrics and for Frequency Control.

Recommendations to TAB

None

Recommendations to IEEE

None

Society comments

The Society will simplify the description of the Fellows Committee requirements in the Bylaws, following the guidelines proposed by the SRC.

The Society will set up Fellow Nomination Committees for the Ferroelectrics and Frequency Control Technical areas. These committees will be added to future editions of the Bylaws.

In future editions of the AdCom members table, additional information will be included, such as gender, industry/academia/other affiliation, and YP.

4. Standards

SCRC comments

The Society has a standing committee on Standards. The chair of the standing committee is a member of the AdCom and reports directly to the AdCom.

The Society has an IEEE Standards Association approved standards committee – IEEE Ultrasonics, Ferroelectrics and Frequency Control (UFFC) Society Standards Committee Standards Committee – that is responsible for the development of standards within the scope of interest of the Society.

As of the writing of this report, the Standards Committee has one active revision project (a.k.a., project authorization request), P1859 (Standard for Relaxor-Based Single Crystals for Transducer and Actuator Applications) and three active published standards, IEEE Std 1859-2017 (IEEE Standard for Relaxor-Based Single Crystals for Transducer and Actuator Applications), IEEE Std 1193-2022 (IEEE Guide for Measurement of Environmental Sensitivities of Standard Frequency Generators), and IEEE Std 1139-2022 (IEEE Standard Definitions of Physical Quantities for Fundamental Frequency and Time Metrology-Random Instabilities).

The Society’s official website contains a section on Standards under the page “Membership and Committees”. While the SCRC commends the effort of Society’s volunteers on a general information of the selected standards development activities of various standards development organization related to the field of interest of the Society, the information on the active working group that develops the revision P1859 project and the published IEEE Std 1193-2022 are both missing. Without this information, it may be challenging for any Society’s members who may be either interested in the revision project to participate and contribute or purchase/download the published standards.

Recommendations to Society

- **Highly Recommended.** The SCRC recommends that the Society make sure that the contents on standards activities, especially related to IEEE Standards Association, are up to date.
- **Recommended.** The SCRC recommends that the Society’s Standards Committee consider raising the awareness of the standard activities (and possibly monetizing the return of investment from standards participation) by organizing tutorials or short courses in some of the three annual Society’s conferences, if applicable.

Recommendations to TAB

- None.

Recommendations to IEEE

- None.

Society comments

The Society will make greater efforts to communicate with a larger community and membership regarding UFFC-related standard developments, which include, but are not limited to, the following: (i) ensuring that information on UFFC standard developments, including published Standards and ongoing standard activities (such as the composition and agenda of the Working Groups), is properly advertised on the Society's website and in the UFFC News Letters; (ii) announcing the kick-off meeting of the recently approved PAR P1859 (Standard for Relaxor-Based Single Crystals for Transducer and Actuator Applications) Working Group and inviting all interested members from UFFC and beyond to participate (tentatively scheduled for May 2025); and (iii) working more closely with the Standards Association (SA) representative to UFFC-S to further promote our standard development activities within IEEE.

In the new AdCom structure, the Society's Standards Committee is overseen by the VP for Education. This will help raise awareness of standard activities through the Society's Educational activities, such as tutorials, short courses, or dedicated webinars. The Standards Chair will be collaborating with the conference chairs to schedule a tutorial or talk at each of the future UFFC technical symposia. We understand that raising awareness of standard development and increasing participation in these activities will ultimately strengthen our technical areas and enhance the membership of UFFC, SA, and IEEE.

5. Conferences and technical meetings

SCRC comments

The Society has a limited but well-focused portfolio of conferences, composed of 3 100% sponsored conferences (rotating across all Regions), plus 3 technically co-sponsored events. Some other co-sponsored events (not listed in section b) have been held in 2021 and 2022, in conjunction with the flagship events. The geographical distribution of the events is very good.

The Society has a consolidated set of collaborations, leading to the sponsoring of joint events. Some flagship events are held in some years as joint events (with conferences organized by other entities), while in others the Society acts as a technical sponsor. The policy, anyway, is mainly to have events held in conjunction with the Society's flagship events. No specific procedures are reported on the evaluation process for the incoming requests for co-sponsorship and the website does not report a formal procedure for those entities looking for co-sponsorship.

The Society is using particular care in organizing its events, to make them valuable to attendees. Hybrid conferences have been organized during the COVID-19 time, and a set of tools for effective online attendance has been developed. This has been kept in place even after the pandemic, to allow the participation of those unable to attend in person. At conferences, activities promoting D&I are strongly supported, as well as those aiming at a larger involvement of industry participants (including an interesting policy for the registration fees). Additionally, the Society recently launched a hackathon with the American Society of Electrocardiography and it is sponsoring clinical sessions at its events.

The three fully sponsored events represent the three technical areas covered by the Society and they share a fairly common approach to evaluating the material submitted (abstracts). Technical program committees (TPCs) for each conference work in a similar way, but an oversight by the Society is not reported. The Society uses ePapers for submissions and CrossCheck for plagiarism checking (managed by the Proceedings Chairs of each conference). Commendably, the Society has conducted an interesting survey to find the possible correlation between the double-blind review process and the fairness of the evaluation results presented at the CPRC interview.

The Society had limited interaction with the MCE staff. The Society had a recent conference portfolio review with the IEEE Conferences Committee, and the Society currently addresses the issues that emerged (regarding the publication delays).

The Society usually does not cover the technically co-sponsored conference charge. However, upon request and provided that the conference cannot afford the cost, the Society will pay the administrative fees of 1450 USD, leaving the paper fees to the conference. The aggregate surplus for all conferences is almost 30%, with 53% of the Society's conferences with a surplus of over 20%.

The three fully sponsored Conferences are overseen by the corresponding Technical Standing Committees. It is not clear (even if stated in the Society's bylaws) what is the role of the VP of Symposia and its Standing Committee in the overall portfolio management, and the final decision is demanded of the Society's AdCom. The TSCs are also in charge of the quality control of the conferences, which includes the choice of keynote speakers, the evaluation of the technical program, and so on. The regional coverage is also considered. Commendably the Society has deployed a special program for regional conferences and appointed an Outreach Ambassador, in charge of reaching underserved regions and low/middle-income countries.

The three TSCs are fully involved in the conference organization, at all levels. Local chapters, instead, have a minor role, as the Society reports only their involvement in the organization of one conference in 2021 and one promotional booth at another event.

The Society has handed to the TSCs the management of the flagship events, and this includes the control of the OCs. A guide for each conference is under preparation, but not made available yet, as the Society believes that part of the organizational and oversight activities will be handed to the PCO.

Recommendations to Society

- **Recommended:** The SCRC recommends that the Society should better define the role of VP of Symposia
- **Recommended:** The SCRC recommends that the Society should prepare and make available on its website a written guide for conference organizers
- **Recommended:** The SCRC recommends that the Society should populate its website with appropriate information for potential co-sponsors.

Recommendations to TAB

- None

Recommendations to IEEE

- Address the requests, from this and other S/Cs, to improve timeliness and flexibility in handling contracts and forms.

Society comments

The Society will review the description of the role of the VP of Symposia, define it more clearly, and incorporate the updated text into future editions of the Bylaws.

The Society has a manual for conference organizers, which will be reviewed, updated, and made available on the website.

Information for co-sponsors currently exists on the website of each flagship conference and other meetings when appropriate. However, we agree that general information for co-sponsors should be included on the Society's website. This will be implemented during the next website update.

6. Publications

SCRC comments

The Society has three wholly owned journals: *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control* (T-UFFC, founded in 1984), *IEEE Open Journal of the Ultrasonics, Ferroelectrics, and Frequency Control* (OJ-UFFC, founded in 2021), and *IEEE Transactions on Materials for Electron Devices* (Founded 2023). The report lists *IEEE Transaction on Materials for Electron Devices* as wholly owned and sponsored by Society. In the meeting, the Society representatives stated it was co-sponsored. They also have a minority stake in three other journals. While T-UFFC appears to be healthy in terms of net profit, OJ-UFFC is running at a loss. The Society is working to adjust the scopes of the two journals to serve their Society. This scope adjustment is a strategy for improving the health of OJ-UFFC.

T-UFFC appears to have good geographic distribution in the editorial board, while OJ-UFFC does not have editors outside regions 1-6 and 10. The number of male editors for T-UFFC is listed as 83% while OJ-UFFC has 75% male editors.

Recommendations to Society

- **HIGHLY RECOMMENDED**: The SCRC highly recommends correcting and UFFC self re-evaluation of the Publications tables.
 - The table for Competing Journals needs to have the UFFC journal title in the left-hand column and the competing journals for that publication in the column, “List Primary Competing Publications”.
 - The publication tables need correction for the current status of *IEEE Transactions on Materials for Electron Devices*. For example, the Competing Publications table needs to include who owns it and issues published, and the finance table should include financials for this publication.
- **Highly recommended**: The SCRC recommends that the Society continue to work to improve gender and geographic diversity in the journals’ editorial boards
- **RECOMMENDED**: The SCRC recommends that the Society continue to work on the scope of the two journals to ensure that they are not competing and able to serve the Society.

Recommendations to TAB

- None

Recommendations to IEEE

- IEEE PerCom is requested to evaluate the current open access journal model and share strategies, best practices and success rates with S/Cs for a financially successful OA Journal.

Society comments

There is some misunderstanding regarding the journals of the society that seems to be due to a poor understanding of how to fill in the portfolio table. The corrected table is copied below and we hope that this makes it clear that the Society has two wholly owned journals: *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control* (T-UFFC, founded in 1984) and *IEEE Open Journal of the Ultrasonics, Ferroelectrics, and Frequency Control* (OJ-UFFC, founded in 2021). We became a technical co-sponsor for *IEEE Transactions on Materials for Electron Devices* in 2023. The first volume of this new journal was published in 2024.

The publications portfolio table has been revised to make it clear that we are only a co-technical sponsor for TMED and additional information has been completed about this very new journal.

Title	Inaugural year	Issues published/year	Sponsored (Y/N)?	Financially co-sponsored (Y/N)? If Y enter % sponsorship and other sponsor(s)	Technically co-sponsored (Y/N)? If Y enter other sponsor(s)
IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control (T-UFFC) (Hybrid OA: IF 3.0)	1984. Although the founding journal dates to 1954	12 per year	Y	N (100% UFFC-S)	N (100% UFFC-S)
IEEE Open Journal of the Ultrasonics, Ferroelectrics, and Frequency Control Society (OJ-UFFC) (Gold OA)	2021	1 vol. per year	Y	N (100% UFFC-S)	N (100% UFFC-S)

IEEE Transactions on Medical Imaging (TMI) (Hybrid OA: IF 8.9)	1982	12 per year	Y	Y	Y
IEEE Journal of Lightwave Technology (Hybrid OA: IF 4.1)	1983	24 per year (6 per year in print)	Y	Y	Y
IEEE Transactions on Quantum Engineering (Gold OA)	2020	1 vol. per year	Y	Y	Y

				Computer Society [10%]	Computer Society [10%]
IEEE Transactions on Materials for Electron Devices Electron Devices Society (Hybrid OA)	2024	1 vol. per year	Y	N	Y Ultrasonics, Ferroelectrics and Frequency Control Society (We are only a technical co-sponsor. There are no financials related to this journal for UFFC)

The competing publications table has also been reformatted according to your instructions. Since the current scopes of our two journals overlap, both are concerned by the same set of competitors.

Title	List Primary Competing Publications	Society Comment on the Financial Threat from Publication (Brief strategic comment)	Society Comment on the Technical Threat from Publication (Brief strategic comment)
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<p>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control (T-UFFC)</p> <p>(Hybrid OA: IF 3.0)</p> <p>&</p> <p>IEEE Open Journal of the Ultrasonics, Ferroelectrics, and Frequency Control Society (OJ-UFFC)</p> <p>(Gold OA)</p>	<p>Ultrasound in Medicine & Biology</p> <p>Impact Factor: 2.4, Elsevier</p>	<p>There is a significant threat to lose medical ultrasound content to this journal. The strategy is to improve IF and timeliness and it should be noted that currently T-UFFC has a higher impact factor, immediacy index and citation half life than UMB.</p>	<p>The journal is well known as a top biomedical ultrasound periodical and its scope overlaps substantially with the medical ultrasonics component of T-UFFC. T-UFFC strives to be the dominant technical home for engineering and technology of biomedical ultrasound.</p>
<p>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control (T-UFFC)</p> <p>(Hybrid OA: IF 3.0)</p> <p>&</p> <p>IEEE Open Journal of the Ultrasonics, Ferroelectrics, and Frequency Control Society (OJ-UFFC)</p> <p>(Gold OA)</p>	<p>Ultrasonics</p> <p>Impact Factor: 3.8, Elsevier</p>	<p>Boosted bibliometrics (IF currently higher than T-UFFC) may draw certain authors in all areas of ultrasonics research away from submitting their best work to T-UFFC. The strategy is to improve IF and timeliness.</p>	<p>The scientific reputation of this journal that covers the entire spectrum of ultrasound research, technology and applications is historically less strong than for T-UFFC. The strategy is to maintain our reputation for excellence in the T-UFFC technical domain, our higher citation half life and compete strongly with respect to bibliometrics and timeliness.</p>

<p>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control (T-UFFC)</p> <p>(Hybrid OA: IF 3.0)</p> <p>&</p> <p>IEEE Open Journal of the Ultrasonics, Ferroelectrics, and Frequency Control Society (OJ-UFFC)</p> <p>(Gold OA)</p>	<p>Journal of Applied Physics</p> <p>Impact Factor: 2.7</p> <p>American Institute of Physics</p>	<p>There is a significant threat to loss of both Ferroelectric and Frequency Control material, particularly in the device area. The strategy has been to show advantages in terms of timeliness and bibliometrics. Currently T-UFFC has a higher IF.</p>	<p>Since some authors in our technical community more strongly identify with the physics community this journal poses a technical threat. Significant efforts have been underway to better attract this community to our journals</p> <p>through author workshops and a conference-to-reviewed-publication track proposal toward OJ-UFFC.</p>
<p>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control (T-UFFC)</p> <p>(Hybrid OA: IF 3.0)</p> <p>&</p> <p>IEEE Open Journal of the Ultrasonics, Ferroelectrics, and Frequency Control Society (OJ-UFFC)</p> <p>(Gold OA)</p>	<p>Applied Physics Letters</p> <p>Impact Factor: 3.5</p> <p>American Institute of Physics</p>	<p>This journal was also identified in early results to an on-going survey as an often preferred alternative to our journals in the Ferroelectrics community. Gains are yet needed to rival this journal's higher impact factor. T-UFFC offers very timely publication of longer manuscripts than can be published in APL and has chosen not to compete for letter-format submissions.</p>	<p>This journal provides rapid publications of letters describing new findings in applied physics that is highly recognized by researchers in ferroelectrics, advanced materials and biosensors. Strategy here is oriented toward the capacity of OJ-UFFC to provide fast track publication of high quality material from our conferences in letter format as well as to refine editorial process to attract and highlight contributions from these areas.</p>

The Society continuously strives to improve gender and geographical representation in all its operations. This will continue, particularly regarding the inclusion of editors from underrepresented or unrepresented regions in the editorial board of OJ-UFFC. In particular, calls for publications-related positions include specific statements to encourage candidates bringing diversity. We also plan to intensify efforts to stimulate applications for calls via local IEEE chapters and groups such as WIE (for women) to further encourage large-scale response to the call that will bring the best possible candidatures forward.

While we strive to improve female representation at all levels, it's worth noting that the proportion of female editors in both journals (25% in OJ and 17% in Transactions) already exceeds the overall membership ratio of 10-12%, though we recognize the need for further progress.

The Society is actively working and will continue to work on the scope of both journals to make them more complementary and to more fully use the potential of these two journals to serve our multi-disciplinary society. This will be accomplished partly through the proposed changes to the name and scope of the Transactions, which are currently under review by TAB for approval.

7. Education

SCRC comments

The Society has updated its strategic plan during the review period. The plan notes that the CATAVault resource center and its YouTube™ channel are important outreach mechanisms to members. However, the plan lacks strategies specific to education, with associated action items and responsible parties to manage the deliverables. It is unclear from the strategic plan how the Society plans to expand its educational offerings in the coming years.

The report lists the Distinguished Lecture program, the schools (the FerroSchool and the Special Topics School on Waves and Transducers school), and the CATAVault resource center as the primary educational products. The Society website is easy to navigate. It includes a top-level **Education** item on its navigation bar that allows visitors to choose information about each of these primary educational products.

The CATAVault resource center is a platform provided by Conference Catalysts LLC. This platform was chosen to help mitigate what the Society perceived to be restrictive IP and copyright transfer concerns with IEEE Resource Centers and the IEEE Learning Network. CATAVault is a curated library of videos on demand for members. This resource center requires member authentication so it could not be examined for content and currency. The report claims it is a repository of 6800 conference presentations, tutorials, and courses. The content is free to authenticated members. This is an impressive resource that loses impact behind an authentication wall. Indexing the content for public perusal could be an area of operational growth for the Society, as could monetizing some of the content to non-members.

The schools help the Society ensure that students and young professionals stay current on state-of-the-art topics in ultrasonics and ferroelectrics. The Society subsidizes travel and registration costs. Both schools have been offered multiple times during the review period although the website lacks documentation of the 2023 Special Topics school.

The Distinguished Lecturer program supports three lecturers in any given year, serving overlapping 18-month terms, with one lecturer from each of the Technical Committees. This approach to identifying distinguished lecturers is a great way to leverage the knowledge base of Technical Committees. The Society website lists the lecturers, provides biographies, and provides lecture titles. The profiles do not list the Technical Committee from which the lecturer was appointed. Thus, the use of the Technical Committees to seed the program could not be verified.

The program lacks gender diversity, with two female lecturers in the past twenty awarded. The website does not provide a complete historical record of lectures, locations, or attendance statistics. The report claims 20 to 30 lectures by each lecturer during a tenure. A more complete webpage would enhance the quality of the public facing information about this important educational program.

The Society fails to document its YouTube™ channel, which has nearly 3000 subscribers and a library of more than 300 videos. While most content is now stale, with only one video uploaded this year, and only one uploaded last year, this channel can be an important vehicle for contact with some professionals. The Society should consider a stronger operational plan for integrating this channel into its educational engagement.

For *most* items in the report, no statistics were provided to gauge impact. Abstract phrases such as “clearly had a great impact” or “a long-lasting network” suggest educational programs are meeting the needs of members but it is unclear if the impact is being measured and fed back into a cycle of continuous improvement. This is one area for future growth in the Society operational plan.

The Society documented frustration with IEEE enforcing the longer timeline, including conference application and concentration banking policies, for shorter timeline events like organization of a school. It seeks a simpler IEEE workflow for shorter timeline events.

Recommendations to Society

- **Highly Recommend:** The SCRC highly recommends the Society collect product impact statistics so that the objective data can be included in continuous improvement.
- **Highly Recommend:** The SCRC highly recommends the Society develops an operations plan to improve the balance of male and female distinguished lecturers.
- **Recommended:** The SCRC recommends the Society use tables-of-content, tagging, or other mechanisms to index the available content and information available to the broader public and strategies that identify content available behind the authentication wall.

Recommendations to TAB

- The SCRC recommends that IEEE and IEEE CEE consider a simpler workflow for shorter timeline events that allows full compliance with IEEE policy and procedure while mitigating the legal and financial risks to the Institute.

Recommendations to IEEE

Same as above

Society comments

The new structure of the AdCom, described in the new Bylaws (effective January 1st, 2025), includes a VP for Education who will oversee educational offerings. Since the modifications to the Strategic Plan were made before the AdCom restructuring and the implementation of the new Bylaws, the Strategic Plan needs to be updated to reflect those changes.

The Society constantly reviews its policy on access to educational materials and will consider indexing for public perusal. Note that CataVault content is searchable on search engines like Google. The Society is also considering placing some educational materials on its YouTube channel, subject to the authors' permissions.

The Society will provide updated information on its website for the Schools.

The Society recognizes the lack of gender diversity in the Distinguished Lecturer program. This issue will be partly addressed through a more inclusive nomination process, but this measure alone is insufficient.

The Society is also aware of the insufficient information about the DL program on its website, and this is being addressed. Effective January 1st, 2025, all new DLs will be required to provide an update on their tour, a video of their talk, and a report on their activities.

The Society acknowledges the lack of measurable parameters to gauge the impact of its educational activities, particularly access to web-based educational materials. The Society is currently establishing procedures to measure this impact and identify which parameters should be gauged. Once established, these procedures will be part of the new Operational Plan. Some impact is currently being tracked (e.g., attendance at short courses and tutorials), but we particularly need to gather numerical data on access to remote content of conference materials in CataVault

8. Technical committees

SCRC comments

The Society has three Technical Committees (TCs) corresponding to each of their technical fields-of-interest. Each TC is chaired by a vice president appointed by the Society president to a 1-year term. TC chairs can serve for up to six years. Each TC has an operations manual.

TC's are responsible for leading the technical content of symposia and Society-wide technical initiatives in their respective technical fields-of-interest. The Society measures TC success based on the symposia headed by each TC. Specific metrics include attendance and financial success.

The TCs are closely aligned to the Society's technical fields-of-interest. No additions or eliminations are anticipated currently. Emerging technical trends are addressed by the Society as a committee as a whole.

The Society's three technical committees are well-organized but could benefit from standardized operating procedures. The lack of a formal process for addressing emerging topics is noted.

Recommendations to Society

- **Recommended:** The SCRC recommends that the Society consider whether it is necessary for each TC to have a separate operations manual. It might be more effective to incorporate the best practices into standardized operating procedures across TC's to ensure uniformity.
- **Recommended:** The SCRC recommends that the Society consider reducing the term limit for TC chairs to provide more leadership opportunities for members.
- **Recommended:** The SCRC recommends that the Society introduce a framework for rapidly addressing emerging technical trends.

Recommendations to TAB

- None

Recommendations to IEEE

- None

Society comments

The operations manuals of the three technical committees are indeed separate, but are actually based on the same previous manual for Ultrasonics Committee and then adapted to each Technical area, so there are some differences. These differences reflect different backgrounds and histories of the three Technical communities and we would like to respect these minor differences, while striving to standardize operations in all important aspects as much as possible.

The Society agrees that the six year term for the Technical Committee Chairs is long. However, the six year length is only a maximal limit and the actual terms are shorter. The six years is chosen because in Ferroelectrics and Frequency Control (each of which has only about 1/6th of the total membership) it is sometimes difficult to find a volunteer to lead the TC. In such cases we prefer to have a flexibility to keep the Chair unless suitable replacement is found, which may be difficult if the maximal term is shorter.

Our meetings take place annually, and the response time to cover new research trends appearing between two consecutive meetings appears to be adequate. However, we may conduct a survey to assess whether there is a need for a formal procedure to address emerging trends.

9. Membership Societies/Member Programs and Incentives

SCRC comments

The Society has about 2,200 members distributed mainly over North America (R1 through R7: 45%), Europe/Africa (R8: 25%) and Asia (R10: 20%). The membership overall is stagnant.

The Society is commended for their Diversity, Equity and Inclusion awareness efforts, which have been recognized with the 2023 TAB DEI Award.

The Society is also commended for the proactive initiative to broaden geographic participation on holding flagship conferences in Latin America and South Asia.

This reviewer could not find either on the Society website or in the report specific coordination activities between the Distinguished Lecturer program and Student Branches outside Regions 8 and 10. In addition to that, the submitted report does not include efforts to recognize or reward for chapters and/or student branches as suggested in the last review. Since the summer school is very successful in Region 8, maybe it could be used as a model or a different approach for different places in the same geographic regions or different IEEE regions.

Recommendations to Society

- **Recommended:** The SCRC recommends that the Society consider coordinating more effectively and creatively their events (mentoring, industry, DL talks) with student, technical meetings and career opportunities.

- **Recommended:** The SCRC recommends that the Society consider implementing awards or local incentives for Chapters and/or Student Branches.

Recommendations to TAB

None

Recommendations to IEEE

None

Society comments

The Society agrees that better coordination between, for example, Society Chapters and DL programs in all regions would be very beneficial. We will take steps in this direction. The new structure of the AdCom, described in the new Bylaws (effective January 1st, 2025), includes a VP for Community, Connection and Diversity who will oversee community related committees. We believe this will allow for better coordination between the various society interest groups and provide a centralized forum for event planning and implementation.

The recommendation that the Society implement awards and local incentives for Chapters and Student Branches is also welcome and will be taken into consideration.

The summer schools rotate around the globe and it was by coincidence that the last two (one from Ultrasonics and one from Ferroelectrics) were held in Region 8.

10. Finance

SCRC comments

In its report, UFFC-S describes appropriate, comprehensive and transparent financial management, reporting and oversight/monitoring processes.

On the positive side, UFFC-S has considerable reserves, the Society aims to achieve a net-zero budget and have actioned finance related recommendations from the last 5-year SCRC Review. The Society presents a clear assessment of long-term risks associated with publication revenues, articulates a proposed plan to expand conference offerings, and the rationale behind the prioritization of current (and future) initiatives demonstrate clear strategic thought.

The proposed approach to manage impact of variances is credible and comprehensive. It is very welcome that UFFC-S plans to solicit event and spending requests (via VP Finance and Finance Committee) targeting education, students, YPs, WIE and DEI.

The focus of initiatives addressing underrepresented communities and fostering diversity is very welcome. There is evidence of clear strategic thought and rationale behind the initiatives which have been prioritized.

Recent trends related to Society Operations related expenses as well as conference and publications related revenues and expenses warrant continued careful attention. UFFC-S also acknowledged that volunteer time was a more significant constraint than financial resources.

(f) Financials (p48 of 57) Conference and Journal related revenues and journal related expenses grew materially between 2020 and 2021, and dramatically between 2021 and 2022 (conference income doubled while expenses quadrupled, journal income grew 30% while expenses doubled). 2022 surplus (pre initiatives and LTIF) were a quarter of that in 2021, with an increase in education committee expenses and doubling of operational expenses. Surplus stabilized in 2023 and slightly declined in 2024, with stable journal income and continued growth in conference income, increased expenditure on operations (2023 – 2024) and a material positive contribution from meetings/conferences (115k) in 2023.

Conference Margins have been lower in recent years but started to recover in 2024 (2020 - 37%, 2021 - 48%, 2022 - 10.7%, 2023 - 10.2%, 2024 - 16.3%). It was explained during the meeting that at least some of this decline in conference margins relates to differences in scale of events, where a small number of people not attending a smaller scale conference has potential for significant negative impact on surplus. It is also noted that a potential contributor to increased event related expenses was the decision by UFFC-S to invest in experiments to understand the potential benefits of hybrid meetings. There is a proposed plan to expand conference offerings to build income.

Journal Margins have fallen significantly in recent years (2020 - 89.9%, 2021 - 68.7%, 2022 - 47.5%, 2023 - 48.9%, 2024 - 37.7 %). UFFC-S presents a clear assessment of perceived factors impacting on revenues and expenses highlighting long term risk associated with publication revenues.

Recommendations to Society

- **Highly Recommend:** The SCRC highly recommends that UFFC-S adapts its current strong budgeting processes to incorporate a practice of prioritizing potential additional impactful initiatives and secure necessary AdCom approval as part of the budgetary process, with authorization to proceed automatically with agreed initiatives (in whole or in part) once certain pre-agreed positive variances are achieved.

Alternatively, UFFC-S may decide to authorize one or more prioritized initiatives as part of the budgeting process, despite potentially resulting in not achieving at least a net zero surplus if the budget proves to be accurate.

While SCRC appreciates the concern expressed during the review meeting of encouraging volunteers to prepare initiatives without a guarantee these may eventually be funded, the Society has a tolerance (as well as associated financial capacity) for manageable, measurable risk in the interests of better serving its members. With its current healthy reserves, this risk may be worth serious consideration.

- **Highly Recommend:** The SCRC highly recommends that UFFC-S further broaden solicitation of proposed initiatives to actively encourage inputs from Society Chapters, Affinity Groups and other relevant stakeholders.

Recommendations to TAB

Recommendations to IEEE

Society comments

Funding for Regional Conferences (with which we are still experimenting) is now a part of the Society's budget. If these conferences happen as anticipated, the spending will bring us closer to net-zero surplus.

The development of our main educational tool, CataVault, which represents a significant cost, is also included in the budget.

The recommendation to solicit and authorize suitable initiatives, even if net-zero surplus is uncertain, is welcome. We will consider both targeted and open calls for initiatives that support our members and Society mandates. Chapters and Affinity groups will be a focus for soliciting ideas.

However, in order for initiatives to be successful, we need expedient mechanisms for funding small and short time-line events such as Schools and workshops to reduce burdens on volunteers organizing the events. This is a separate issue than timeliness of payments to service providers.

The VP Finance has additionally been working towards a more accessible and transparent reporting of financial status. This requires allocating each expense in the General Ledger to the appropriate committee or purpose, and is made possible by the expanding range of cost centers to which society expenses can be attributed.

We have begun regularly updating a finance summary, shared with the Society VPs. This data will help the VPs to manage spending approval within their remit, for AdCom to better understand the society's spending and for the various Committee chairs to manage their spending w.r.t. approved budgets.

11. Previous review

The Ultrasonics, Ferroelectrics, and Frequency Control Society (UFFC-S) has made notable progress in addressing the recommendations from their last review five years ago. In terms of purpose, strategy, and operations, the Society has acknowledged the need for specific metrics to be added to the strategic plan and has implemented this where appropriate, such as in education, where attendance metrics are being tracked.

The relationship with CRFID has seen improvements with overlapping leadership, which should enhance communication, though this remains a work in progress. Regarding conferences and technical meetings, the Society has found a workable solution by collaborating with local Professional Conference Organizers (PCOs) and integrating the CEE (formerly MCE) Suite of offerings, which has proven effective. For educational initiatives, the Society has invested in and launched an alternative platform to the IEEE Learning Network (ILN). On the membership front, UFFC-S is focusing on expanding its network of chapters and student branches, with plans to consider new awards as the pool has grown sufficiently.

Financially, while they continue to work with a financial analyst, they still face challenges in understanding some data, which they acknowledge as a limitation. Finally, the Society has had success with strategic initiatives. These investments are guided by careful assessment to ensure they provide a strong return, positioning the Society well for future growth (the recent education platform initiative seems to be a challenge).

Society comments

12. Society successes

While the Society has achieved notable successes and uses many best practices. SCRC uses this space to highlight new & novel ideas to put on the SCRC webpage to share with other IEEE S/Cs to provide models for their own successes.

As a member benefit, UFFC has a repository containing about 6800 webinars, university lectures, tutorials, conference presentations, and more. This repository was created to improve the reach of the newest research and technologies in the field, educate, spread knowledge, and enhance inclusiveness. All symposium presentations must have their videos uploaded prior to the conference start (tutorials and plenary talks are recorded live). UFFC plans to add about 2000 more videos in 2024. The tool they are using is CATAVault, and is developed and provided outside of IEEE.

Society comments

2. Society Comments

To be completed by the Society after the SCRC report is received.

3. Purpose, Strategy and Operations

NOTE 1: This section is designed to help you reflect on how your society fits into the professional community covered by your field of interest. We want you to consider the following:

- What do you believe to be your professional community?
 - What type of engineer (industry, academic, other) do you focus your activities on?
 - How do students, young professionals and other groups fit into your community?
- How do you structure your operation to serve these groups?

NOTE 2: Once the Society knows its professional community, they need to have a specific plan on how to effectively engage and interact with the community. Such a strategic plan is critical to instill structure and coordination into Society operations. The plan needs to be comprehensive, but also concise. The plan needs to have continuity over several years so that the Society can plan to develop long term relationships and have continuity. Governing bodies can refer to the strategic plan even as members of the governing body change. The length of the strategic document does not determine the strength of the strategy; in fact, most strong society and council strategic plans are short (maximum 1 page long) and include the strategy for the next few years. This strategic plan is the answer to “where do you see your society 3 to 5 years from now?”.

NOTE 3: The operational plan is the implementation of the strategy. There are specific actions that must be taken to implement each item in the strategic plan, answering the question “who will do what by when”. The list of these action items is your operational plan. For example, if you are having trouble with your flagship conferences (e.g. your attendance is very low or you can’t generate surplus), it is reasonable to set the goal of “improving your flagship conferences in terms of participation and surplus in the next 5 years” in your strategic plan. In that case all the action you plan to take to improve participation and generate surplus will be listed in your operational plan with specific tasks, task owners and completion dates.

NOTE 4: There are a plethora of documents available on the "Strategy Menu/Page" within the TA Volunteer Site: <https://ta.ieee.org/strategic-planning>

NOTE 5: Society Strategic Plans may be found here (please copy and paste the link): <https://ta.ieee.org/operations/governing-documents>

a) State the current Field of Interest (FOI): (75 words or less per TAB ‘must have’ document)

The theory, technology, materials, and applications relating to: the generation, transmission, and detection of ultrasonic waves and related phenomena; medical ultrasound, and associated technologies; ferroelectric, piezoelectric, and piezomagnetic materials; frequency generation and control, timing, and time coordination and distribution. This interest ranges from fundamental studies to the design and/or applications of devices, sensors, systems and manufacturing technologies within the general scope defined above.

Question	Y, N, N/A
Is your FOI 75 words or less?	Y
Is your FOI in your Constitution?	Y
Is your FOI on your website?	Y
Does the Constitution FOI match the website?	Y
Does your FOI match the FOI in the TAB Operations Manual?	Y

b) Do you have a written strategic plan that acts as a roadmap for your society? Please see NOTE 2 above.

If you have an existing strategic plan, please provide a copy and describe the process used to review and update the plan. (approximately 150 words)

Strategic Plan Document:

<https://drive.google.com/file/d/1ijiBaXS68kacJzZoxce57Z2WHosQgfRI/view?usp=sharing>

Two processes are used to review, rewrite, and update strategic plans. For a major overhaul, the Strategic Planning Committee, led by the President-Elect, discusses key topics with senior members in multiple meetings. The final plan is approved at an AdCom meeting, as was done for the Strategic Plan 2020-2021. For smaller updates, the Strategic Planning Chair (President-Elect) reviews the existing plan, proposes changes, and discusses them with senior members before seeking AdCom approval. This is the approach for the current Strategic Plan 2024-2025, which expands and adapts the 2020-2021 plan.

Strategic plans are typically valid for two years but may be extended under special circumstances. The Strategic Plan 2020-2021 was extended due to the COVID-19 pandemic, which significantly altered the Society's operations. The current plan, 2024-2025, incorporates these changes and introduces new areas of focus.

If you do not have a written strategic plan, please describe how you determine overarching goals for your society that will guide your activities, guide your membership and keep your professional community engaged with and confident in your society. (approximately 500 words)

N/A

c) Specifically, regarding new and emerging technologies, describe activities that you pursue to:

- **React to new technologies that emerge within your FOI,**
- **Make your constituencies aware of the emerging technologies (examples could be Newsletters, Special Issues of publications, new publications, new conferences, special tracks at existing conferences and conference/workshops/tutorials),**
- **Keep your society current as the technology develops around you,**
- **Capture these developments in your publications, conferences and communications,**
- **Keep your society relevant and bring value to your professional community and keep them coming back to you.**

If you do not have a written strategic plan, describe the process used to understand what the Society needs to do to remain relevant to its members and its professional community. (approximately 300 words)

The technical program committees for the flagship symposia in Ultrasonics, Ferroelectrics, and Frequency Control play a key role in spotting and incorporating new and evolving research and technology areas into their respective technical programs. Over the years, this has been effectively achieved in numerous technical fields. For instance, the International Symposium on Frequency Control has integrated MEMS, while the International Symposium on Applications of Ferroelectrics has included topics such as multiferroics, lead-free piezoelectrics, and fluorite-based ferroelectrics. The International Ultrasonics Symposium has featured the latest advancements in biomedical imaging, most recently adding a new track on Ultrasound Super Resolution Imaging. These emerging technical areas, identified across the symposia, may then be featured in specialized Topical Schools aimed at students and young professionals, subject to approval from the UFFC AdCom and

the discretion of the relevant technical committees. Additionally, Topical Issues and review papers on these cutting-edge technologies are published in the Transactions and Open Journal of UFFC, with guest editors who are renowned experts in their fields.

- d) **Please summarize the overall operational plan for your society. (If you have an existing operational plan, please provide a copy). (approximately 300 words)**

n/a

- e) **Describe the process your society uses to create and update the operations plan and track its implementation. (approximately 150 words)**

n/a

- f) **If you do not have a written operations plan, please describe the process that the Society uses to implement the Society's strategy.**

The UFFC Strategic Planning Committee is chaired by the President-Elect. The process typically follows these steps:

1st year: Engage with stakeholders to identify areas for growth and change, discuss at AdCom, and modify the Strategic Plan as needed.

2nd year: Develop operational plans, allocate budget for the next fiscal year, and seek AdCom approval for action items and budget requests.

Presidency term: Implement the plans.

If circumstances change, such as during COVID-19, the AdCom adjusts operational priorities. This can lead to the introduction of new elements, which may become enduring and present new development opportunities. The current Strategic Plan for 2024-2025 introduced two new focus areas—Outreach and Sustainability—along with making all symposium contributions remotely accessible, in addition to the six areas identified in the 2020-2021 plan. This required budgetary adaptations.

- g) **Does your society provide engagement opportunities for industrial (i.e., non-academic or non-government) practitioners, young professional members, globally distributed members, female members and in particular professionals who are not society members? Please identify specific activities focused on these target demographics. (approximately 150 words)**

The Society has committees for Women in Engineering, Diversity, Equity and Inclusion, Industry Engagement, Students, and Young Professionals. These committees organize events at all of our flagship conferences, providing networking opportunities for members and non-members alike. Additionally, we have a Volunteer Engagement committee that actively seeks diverse applicants through an open volunteer forum for all positions.

- h) **Identify IEEE Societies and Councils that overlap your FOI and explain how you interact with them:**

Society/Council	Interactions
Sensor Council	Member of the Council; participation at events
Dielectrics and Electrical Insulation Society	Occasional individual technical presentations at flagship conferences; co-sponsored award (The Dilip Das-Gupta Memorial Award)
Nanotechnology Council	Member of the Council; participation at events
Radio Frequency Identification Council	Member of the Council; participation at events
Engineering in Medicine and Biology Society	Journal co-sponsoring (IEEE Transactions on Medical Imaging); co-sponsored award (IEEE Transactions on Medical Imaging Best Paper Award)

- i) **Identify any problems you have encountered as a result of any overlaps in FOI. (approximately 150 words)**

none in the last five years

- j) **Identify non-IEEE professional associations or organizations that overlap your FOI and explain how you interact with them. Are there any associations that you have interactions with? Interactions can include attending their conferences or publishing papers in their journals, participation in Editorial Boards or Conference Steering Committees, attendance at each other's governance meetings, being a member of each other's governance committee(s).**

Association/Organization	IEEE Region(s) served by Association/Organization	Interaction
American Ceramics Society	USA, International	Overlap between technical program committees of ISAF and EMA (conference hosted by the ACerS), officers of the two groups, associate editors of journals, etc. Until 2024 the Ferroelectric Standing Committee used to have one meeting at the IEEE ISAF and the other during the EMA conference.
European Forum on Time and Frequency	Europe	The IFCS is held jointly with EFTF every other year.
PiezoForce Microscopy Workshop	World	PFM has been held jointly with ISAF meetings since 2012 and has joined ISAF permanently since 2023
International Symposium on Integrated Functionalities	World	Occasionally held joint meetings with ISAF and has joined ISAF permanently since 2023
ECAPD, EMF, AMF, AMEC, ICE, IMF	Europe, Asia, World	Sporadic joint conferences with ISAF; Advisory Board members; technical presentations
International Congress on Ultrasonics	World	The International Congress on Ultrasonics is the only equivalent to IEEE UFFC-S in covering all fields of ultrasonics. It is more academically-focused, with less industry content.
Ultrasonics Industry Association	World	Advisory Board; participation at meetings; technical presentations; technical co-sponsorship
various	National, Regional, World	A strength of UFFC-S is that it covers all fields of ultrasonics, ferroelectrics, and frequency control, including academic research and industry, worldwide. There are many other associations / organizations that cover part of the FOI e.g. American Institute of Ultrasound in Medicine, British Medical Ultrasound Society, American Society for Nondestructive Testing; American Physical Society, Materials Research Society; etc.

k) If there is a governance process used to identify and select associations/organizations with which to engage, please describe it. If there is no formal process, how are engagement decisions made? (approximately 150 words)

There are no formal processes. Joint conferences held with IFCS and ISAF are encouraged. Technical co-sponsorships are encouraged and the approval of the final joint meetings are based on the input of the technical standing committees, which is usually directly supported by the AdCom vote and an MOU. Informal discussion between conference organizers and relevant technical areas e.g. resulting in coordination of UFFC JS with ISTU (International Society for Therapeutic Ultrasound) in Taipei in 2024.

l) Identify what councils you are a member of:

Council on Superconductivity, Council on RFID, Sensors Council, Nanotechnology Council

m) What kind of feedback do you receive on how these councils are operating and how effective (including your representatives) your support to them has been? (approximately 150 words)

Our Council Representatives are asked to provide reports which are included on the consent agenda at our AdCom meetings.

n) Are there ways the IEEE could help you with your operations?

Society's representatives at the TAB meetings have raised concerns regarding IEEE's responsiveness, timeliness, and flexibility in contract and payment procedures. We would greatly appreciate it if these issues are addressed by IEEE.

4. Governance

NOTE: The items in this section are designed to help you reflect on your society's governance. The function of governance documents is to ensure that the Society follows clear and consistent guidelines for its operation. For this reason, keeping the Constitution and Bylaws up to date is essential for both the success of the Society and alignment with the larger organization of the IEEE. Another important aspect of governance is the representation of society constituents in the Board of Governors/Administrative Committee. The more diverse the governing body is, the better representation the Society will have among its constituencies and the more relevant the discussions in the governing body becomes. The questions below are asked with these points in mind. Society Constitutions and Bylaws can be found here (please copy and paste all links): <https://ta.ieee.org/operations/governing-documents>

- a) **Attach a copy of your current Constitution and Bylaws and any other governing documents (e.g., Operations Manual).**
- b) **What is the last date of review of Constitution and Bylaws with IEEE staff?**

The revised Constitution (https://ieee-uffc.org/files/ieeuffcorg/2024-10/UFFC_Constitution_2024.pdf) and Bylaws (https://ieee-uffc.org/files/ieeuffcorg/2024-10/UFFC_Bylaws_2024s.pdf) were approved by IEEE VP Technical Activities on July 23, 2024, and by UFFC AdCom on September 22, 2024, and will become operational on January 1, 2025.

- c) **Indicate any areas in which you do not comply with the Technical Activities policies and procedures related to Society governance as outlined in the Technical Activities Operations Manual (http://taops.ieee.org/images/files/ta_ops_manual.pdf) and please explain how these areas are being addressed. (approximately 200 words)**

In the revision work that was completed this year, every effort was made to comply with TA policies and procedures, and any areas of non-compliance were updated. The recent approval by IEEE indicates that the revisions addressed any potential issues.

- d) **The table below should be populated with your current Board of Governors/ Administrative Committee members, along with appropriate titles as prescribed by the Society's own Constitution or Bylaws. Please expand the table as necessary.**

Voting AdCom Members (23):							
	Society Officers:		Term Sta	Term En	Renewable	Appointment Type	Year of First Appointm
President	Dragan Damjanovic	dragan.damjanovic@epfl.ch	Jan-24	Dec-25	No	Automatic Transition	2022
President-Elect	Debra Coler	debra.coler@oew.aves.com	Jan-24	Dec-25	No	AdCom Vote	2024
Past President	Mark Schafer	marks@sonitech.com	Jan-24	Dec-25	No	Automatic Transition	2020
Vice President for Ultrasonics	Helen Mulvana	helen.mulvana@glasgow.ac.uk	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Vice President for Ferroelectrics	Jon Ihlefeld	ihlefeld@virginia.edu	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Vice President for Frequency Control	Ekkhard Peik	ekkehard.peik@ptb.de	Jan-24	Dec-24	Yearly	Presidential Appointment	2020
Vice President for Symposia	Steve Freear	s.freear@leeds.ac.uk	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Vice President for Finance	Christine Demore	cdemore@ieee.org	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Vice President for Publications	Lori Bridal	lori.bridal@upmc.fr	Jan-24	Dec-24	Yearly	Presidential Appointment	2023
Treasurer & Secretary	Dan Stevens	Dan.Stevens@ieee.org	Jan-24	Dec-24	Yearly	Presidential Appointment	2006
Diversity and Inclusion	Sinda Meiji	sinda.meiji@esa.int	Jan-24	Dec-24	Yearly	Presidential Appointment	2023
Elected AdCom Members:							
2022-2024 Elected AdCom - Ultrasonics	Jessica Liu Strohmann	dantorliu@gmail.com	Jan-22	Dec-24	No	Membership Vote	2022
2022-2024 Elected AdCom - Ferroelectrics	Hana Ursic	hana.ursic@ijs.si	Jan-22	Dec-24	No	Membership Vote	2022
2022-2024 Elected AdCom - Frequency Control	Claudio E. Calosso	c.calosso@inrim.it	Jan-22	Dec-24	No	Membership Vote	2022
2022-2024 Elected AdCom - Region 8-10	Omar Elmazria	omar.elmazria@univ-lorraine.fr	Jan-22	Dec-24	No	Membership Vote	2022
2023-2025 Elected AdCom - Ultrasonics	Yoon-Kang Yong	ykyong@soe.rutgers.edu	Jan-23	Dec-25	No	Membership Vote	2023
2023-2025 Elected AdCom - Ferroelectrics	Astri Eigneytur Haugen	ahaug@du.dk	Jan-23	Dec-25	No	Membership Vote	2023
2023-2025 Elected AdCom - Frequency Control	Rodolphe Boudot	rodolphe.boudot@fermtor-st.fr	Jan-23	Dec-25	No	Membership Vote	2023
2023-2025 Elected AdCom - Region 8-10	Marc Lethiecq	marc.letiecq@insa-cvl.fr	Jan-23	Dec-25	No	Membership Vote	2023
2024-2026 Elected AdCom - Ultrasonics	Hong Chen	hongchen@wustl.edu	Jan-24	Dec-26	No	Membership Vote	2024
2024-2026 Elected AdCom - Ferroelectrics	Jiangyu Li	jlj2934@gmail.com	Jan-24	Dec-26	No	Membership Vote	2024
2024-2026 Elected AdCom - Frequency Control	Siddhartha Ghosh	s.ghosh@northeastern.edu	Jan-24	Dec-26	No	Membership Vote	2024
2024-2026 Elected AdCom - Region 8-10	Tali Ilvitch	ilvitch@taux.tau.ac.il	Jan-24	Dec-26	No	Membership Vote	2024
Non-Voting AdCom Members							
Standing Committee Chairs:							
Awards	Andrew Bell	a.j.bell@leeds.ac.uk	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Fellows	Ahmad Safari	safari@rci.rutgers.edu	Jan-24	Dec-24	1 Year Term - Renewable Once	Presidential Appointment	2023
History	Jan Brown	jan.brown@ieee.org	Jan-24	Dec-24	Yearly	Presidential Appointment	2021
Membership & Data Analytics	Holly Lay	holly.lay.uffco@gmail.com	Jan-24	Dec-24	Yearly	Presidential Appointment	2021
Nominations	Mark Schafer	marks@sonitech.com	Jan-24	Dec-25	No	Presidential Appointment	2024
Standards	Zuo-Guang Ye	zye@sfu.ca	Jan-24	Dec-24	Yearly	Presidential Appointment	2012
Strategic Planning	Debra Coler	debra.coler@oew.aves.com	Jan-24	Dec-25	No	Presidential Appointment	2024
Education	Ruochen Lu	ruochen@utexas.edu	Jan-24	Dec-24	Yearly	Presidential Appointment	2021
Chapters	Lin Yi	lin.yi.dr@ieee.org	Jan-24	Dec-24	Yearly	Presidential Appointment	2021
Governance	Mark Schafer	marks@sonitech.com	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Women-in-Engineering	Michelle Dolgos	michelle.dolgos@ucalgary.ca	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Young Professional	Ralph Bulanadi	Ralph.Bulanadi@unige.ch	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Publicity	Andrew Feeney	andrew.feeney@glasgow.ac.uk	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
AdHoc Committee Chairs:							
Industrial Engagement	Maryam Basji	nasim.basji@acoustic.com	Jan-24	Dec-24	Yearly	Presidential Appointment	2023
Special Initiative Planning	Mark Schafer	marks@sonitech.com	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Volunteer Engagement	Sophie Morse	sophie.morse11@imperial.ac.uk	Jan-24	Dec-24	Yearly	Presidential Appointment	2022
Summer Schools	Koen Van Dongen	K.W.A.vanDongen@tudelft.nl	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Sustainability Committee	Alp Sehirlioglu	axs461@case.edu	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
EICs:							
Editor-in-Chief of IEEE TUFFC	Alfred Yu	alfred.yu@uwaterloo.ca	Jan-22	Dec-24	3 Year Term - First Term	Presidential Appointment	2022
Newletter Editor-in-Chief	Arun Thittai	akthittai@itm.ac.in	Jan-24	Dec-24	Yearly	Presidential Appointment	2023
Web Editor-in-Chief	Srinath Rajagopal	srinath.rajagopal@npl.co.uk	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Open Access Journal Editor-in-Chief	Omer Oralkan	omer.oralkan@ncsu.edu	Jan-24	Dec-26	3 Year Term - Second Term	Presidential Appointment	2021
AdCom Emeriti:							
Emeritus	John Vig	lvig@ieee.org			Life Term	Awards Appointment	2013
Emeritus	Jan Brown	jan.brown@ieee.org			Life Term	Awards Appointment	2013
Emeritus	Donald Malocha	donald.malocha@ucl.edu			Life Term	Awards Appointment	2013
Emeritus	Ahmad Safari	safari@rci.rutgers.edu			Life Term	Awards Appointment	2017
Emeritus	Susan Trolter-McKinstry	stmckinsty@PSU.EDU			Life Term	Awards Appointment	2020
Emeritus	Jian-Yu Lu	jian-yu.lu@ieee.org			Life Term	Awards Appointment	2024
AdCom Student Representatives:							
Student Advisor	Andreja Erbes	erbes.andrea@gmail.com	Jan-24	Dec-24	Yearly	Presidential Appointment	2021
2023-2024 Student Rep, Ultrasonics	Samantha Schafer	samanthas@sonitech.com	Jan-23	Dec-24	No	Presidential Appointment	2023
2023-2024 Student Rep, Ferroelectrics	Brooke Richtik	brooke.richtik@ucalgary.ca	Jan-23	Dec-24	No	Presidential Appointment	2023
2023-2024 Student Rep, Frequency Control	Kai Suckane	merlin-21@g.ecc.u-tokyo.ac.jp	Jan-23	Dec-24	No	Presidential Appointment	2023
2024-2025 Student Rep, Ultrasonics	Andrew C Markel	ANDREW.C.MARKEL@GMAIL.COM	Jan-24	Dec-25	No	Presidential Appointment	2024
2024-2025 Student Rep, Ferroelectrics	Ipek Ele	ipek.efe@mat.ethz.ch	Jan-24	Dec-25	No	Presidential Appointment	2024
2024-2025 Student Rep, Frequency Control	Laurine Meistersheim	laurine.meistersheim@univ-lorraine.fr	Jan-24	Dec-25	No	Presidential Appointment	2024
Symposium General Chairs:							
2023 IUS GC	Guy Cloutier	guy.cloutier@umontreal.ca	Jan-22	Dec-24	No	Committee Appointment	2022
2023 IUS GC	Elisa E. Konofagou	ek2131@columbia.edu	Jan-22	Dec-24	No	Committee Appointment	2022
2023 ISAF GC	Alp Sehirlioglu	axs461@case.edu	Jan-22	Dec-24	No	Committee Appointment	2022
2023 IFCGS GC	Tetsuya Ido	ido@nict.go.jp	Jan-22	Dec-24	No	Committee Appointment	2022
2024 Joint Conference GC	Pai Chi Li	paichi@ntu.edu.tw	Jan-23	Dec-25	No	Committee Appointment	2023
2024 Joint Conference GC	Wan Thai Hsu	wan.t.hsu@gmail.com	Jan-23	Dec-25	No	Committee Appointment	2023
2025 IUS GC	Chris De Korte	chris.dekorte@radboudumc.nl	Jan-24	Dec-26	No	Committee Appointment	2024
2025 ISAF GC	Marco Deluca	marco.deluca@silicon-austria.com	Jan-24	Dec-26	No	Committee Appointment	2024
2025 IFCGS GC	José Mauricio López Romer	jm.lopez@cinvestav.mx	Jan-24	Dec-26	No	Committee Appointment	2024
UFFC-S Representatives:							
Representative to IEEE Transactions on Medical Imaging	Arun Thittai	akthittai@itm.ac.in	Jan-24	Dec-24	Yearly	Presidential Appointment	2021
Representative to IEEE Transactions on Medical Imaging	Orcun Goksel	orcun.goksel@it.uu.se	Jan-24	Dec-24	Yearly	Presidential Appointment	2022
Representative to IEEE Journal of Lightwave Technology	Xueding Wang	xdwang@umich.edu	Jan-24	Dec-24	Yearly	Presidential Appointment	2021
Representative to IEEE Transaction on Quantum Engineering	Alicea Baghai-Wadji	alicea.baghai-wadji@uct.ac.za	Jan-24	Dec-24	Yearly	Presidential Appointment	2022
Representative to IEEE Sensors Council	Cécile Floer	cecile.floer@univ-lorraine.fr	Jan-24	Dec-25	2 Year Term - Renewable Once	Presidential Appointment	2024
Representative to IEEE Council on Superconductivity	Siddhartha Ghosh	s.ghosh@northeastern.edu	Jan-24	Dec-24	Yearly	Presidential Appointment	2021
Representative to IEEE Council on Superconductivity	Debismitta Dutta	debismitta.dutta@nydal.lie	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Representative to IEEE Nanotechnology Council	Debismitta Dutta	debismitta.dutta@nydal.lie	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Representative to IEEE Nanotechnology Council	Debismitta Dutta	debismitta.dutta@nydal.lie	Jan-24	Dec-24	Yearly	Presidential Appointment	2024
Representative to IEEE RFID Technical Committee	Omar Elmazria	omar.elmazria@univ-lorraine.fr	Jan-24	Dec-24	Yearly	Presidential Appointment	2022
Representative to IEEE RFID Technical Committee	Omar Elmazria	omar.elmazria@univ-lorraine.fr	Jan-24	Dec-24	Yearly	Presidential Appointment	2022
Representative to IEEE Women in Engineering	Hana Ursic	hana.ursic@ijs.si	Jan-24	Dec-24	Yearly	Presidential Appointment	2024

- e) **Indicate methods the Society is employing to improve the composition of its Board of Governors/Administrative Committee to make it more closely representative of the Society’s current and envisioned membership. Comment on specific groups including women, Young Professionals, non-US members, industry members and academic members. (approximately 200 words)**

We have revised our organizational structure to make Industry Engagement, Volunteer Engagement, and Schools into standing committees as well as adding two new VP Positions: VP of Community, Connection, and Diversity; and the VP of Education.

We recognise that improving the inclusivity of AdCom requires a strategic approach and implementation at all levels of the Society’s operations. We have set out to improve our ability to attract a pipeline of diverse, willing volunteers capable of making meaningful contributions to our operations at all levels, and sought to recruit volunteers into society positions. This provides individuals with the opportunity to gain experience, and allows them to develop towards leadership of initiatives or within Adcom. A number of specific measures and their results are detailed across different sections of this report. Examples include: 1. Making all calls for all positions open and managed by a Volunteer Committee, positions are communicated in our regular society newsletter and on our website; 2. We have overhauled the recruitment of members to our Technical Program Committees, having identified that this would not only improve diversity and inclusion within TPCs, but understanding that this is the most common route to attract new IEEE members, and build greater society involvement and service; 3. All committees are requested to rotate timings of meetings to support involvement by volunteers from different time zones.

- f) **Please list any paid personnel (IEEE or non-IEEE), indicate their primary function and whether they are part-time or full-time.**

Name	Primary function	Part time/Full time (PT/FT)
Colleen Brick - Conference Catalysts	Operations Manager	FT
Jenna Yockim - Conference Catalysts	Conference Manager	FT
Adrian Chee - Self Employed	Editorial Assistant	PT

- g) **Are there ways the IEEE could help you with governance?**

The Society is open to considering all suggestions.

5. Standards

NOTE: The items in this section are designed to help you reflect on your standards activities strategy. Standards activities can leverage the expertise that is resident in your society for identifying potential standardization opportunities for IEEE. Standards activities can develop into revenue-producing Technical Activities programs and products. Active participation in the IEEE-SA governance structure on a strategic level, i.e., IEEE-SA Board of Governors, and operational level, i.e., IEEE-SA Standards Board and its committees, will benefit the S/C, such as improving and adding value to your industry and academic relationships.

Please consider the following:

- Are your standards activities part of your society strategy? Are they aligned with the IEEE-SA Strategy? TAB's Strategy?
- Does the scope of Standards, published and in development, cover a significant portion of your Society's FoI?
- How are you insuring that qualified and willing to serve standards activities volunteers are able to participate in standards activities as well as in standards activities Governance in your Society and in IEEE-SA?
- Does your governance provide oversight of compliance with IEEE Policy, with TA and SA Policies and Procedures and ensure proper demarcation between technical and standards development activities in order to protect from liabilities your volunteers and to protect IEEE?

Support for S/C standards activity can be found at <https://ta.ieee.org/operations/standards-activities>

a) What is the value of standards activities to your professional community? (approximately 200 words)

Standards activities have been highly valued within the UFFC-Society. Development of new or revised standards has been part of our society's strategy in the past 5 years. We have had a standing Standards Committee whose chair is a member of the AdCom and reports directly to the AdCom. The standards activities are aligned well with the IEEE-SA's Strategy and the TAB's Strategy, especially in that new standards fuel the development and implementation of technologies and accelerate the transition of technologies into applications.

We understand that the IEEE standardization is a long, slow, and time-consuming process, but these efforts can have an invaluable impact not only on our professional community, but also on society in general. For example, in 2017, after more 10 years of hard work, the UFFC-Society developed and published the very first IEEE Standard (Std-1859™) on "Relaxors-based Piezocrystals for Transducer and Actuator Applications". This Standard is now being updated. Guided by this standard, the high-performance piezoelectric single crystals have become a viable resource (a ~\$55-million US market, with a CAGR of about 10%) for the manufacturing of the next generation of electromechanical transducers, such as high-end medical ultrasonics equipment (a market of three-to-four billion US\$), large-range and high-sensitivity sonars, and many other devices.

b) What standards activities and working groups do you have?

Under the sponsorship of the Society, and the supervision of its standing Standards Committee, there have been three working groups within UFFC in the past 5 years, representing three main areas of standards activities:

1) Working Group 1139 for the revision of IEEE Std 1139-2008:

The activities of this WG led to the successful publication of IEEE Std-1139™-2022 "IEEE Standard Definitions of Physical Quantities for Fundamental Frequency and Time Metrology--Random Instabilities" in 2022.

2) Working Group 1193 for the revision of IEEE Std 1193-2003:

The activities of this WG led to the successful publication of IEEE Std-1193™-2022 "IEEE Guide for Measurement of Environmental Sensitivities of Standard Frequency Generators" in 2022.

3) Ad hoc Standard Committee for the revision and extension of IEEE Std-1859-2017 "Relaxors-based Piezocrystals for Transducer and Actuator Applications":

Since the publication of the (first) "Standard for Relaxor-Based Single Crystals for Transducer and Actuator Applications" (IEEE Std-1589™) in 2017, an ad hoc international committee has been working on updating this standard as more data on different orientations, compositions and properties have become available. At its last meeting that took place on May 7, 2024, the Committee approved the motion to launch a new round of IEEE standardization process for revision and extensions of Std-1589™, and submitted a new Project Authorization Request (PAR) to the IEEE SA's NesCom for approval at its meeting on Sept. 25, 2024. Upon approval, a new Working Group will be set up to start formally the IEEE standard process.

The scope of these Standards, published and in development, cover a significant portion of our Society's FoI, especially in frequency control and ferroelectrics.

c) How do you monitor your standards activities, how do you report them to your society governance, and how do you interact with the IEEE-SA? (approximately 250 words)

The UFFC Standards Committee Chair oversees all the standards activities within our society. The Standards Committee Chair works closely with representatives from different technical areas to identify the needs for new and revised standards, and encourages qualified and interested individuals to lead a standard project(s). Once a new PAR is approved by the SA's NesCom, the Standards Committee Chair appoints the Working Group Chair and helps him/her develop new Policies & Procedures (P&P) and form the corresponding WG. During the development of new standards, the Standards Committee Chair works closely with the WG chairs throughout the process to ensure the IEEE SA's standard development procedure and policies are followed, until the completion and publication of a new standard. In this way, we provide oversight of compliance with IEEE Policy, with TA and SA Policies and Procedures and ensure proper demarcation between technical and standards development activities in order to protect volunteers and IEEE from liabilities.

The Standard Chair offers a report on the standard activities at every AdCom meeting and also receives strong support from the AdCom to the development of standards.

The Society interacts with the IEEE-SA through the Standard Chair who works closely with the IEEE-SA's representative/adviser for our Society. These interactions include annual financial activities report, approval of new PAR by NesCom, mandatory editorial formatting, organization of balloting, approval of new standards by RevCom, and publication of new standards.

d) How do you identify and exploit opportunities for new standards activities and collaborations? (approximately 200 words)

In general, we are open to any ideas for new or revised standards and accept any proposal from a member to start a standard process, and we work with the Volunteer Engagement Committee so that interested and qualified volunteers are able to participate in standards activities. In addition, the Standards Committee Chair works closely with the representatives from different technical areas to identify the needs for new or revised standards. For example, in 2018, when two UFFC standards on Frequency Control, Std 1139-2008 and Std 1193-2003, would expire, the Chair reached out to colleagues in the Frequency Control technical area, initiated the discussion on the revision of the standards, helped form the respective Working Groups (WG), appointed the Working Group chairs, and provided them with encouragement, guidance and advice throughout the revision process. Over 70 people participated in the two Working Groups or in the balloting groups, representing academia, industries, government labs and defense sectors. Their hard work led to the publication of IEEE Std 1139™-2022 "IEEE Standard Definitions of Physical Quantities for Fundamental Frequency and Time Metrology - Random Instabilities", and IEEE Std 1193™-2022 "IEEE Guide for Measurement of Environmental Sensitivities of Standard Frequency Generators".

In the project of revision and extension of IEEE Std-1859-2017 "Relaxors-based Piezocrystals for Transducer and Actuator Applications", since 2019, nine meetings have been held, 2 in-person, 4 hybrid, with >220 attendees from 11 countries, involving 66 people (with a core of 15 people attending 2/3 or more of the meetings). They are representatives from academia, crystal manufacturers and users (mainly medical ultrasonics & Navy).

e) Are there ways the IEEE-SA or TAB Committee on Standards can help you?

The Society is open to considering all suggestions.

6. Conferences and Technical Meetings

NOTE: The items in this section are designed to help you reflect on your conferences strategy. Please consider the following:

- Do you have a conference strategy?
- Are completing regular assessments of your conferences?
- What's working and what's not working in your conferences?
- How are you addressing the identified issues?

This section also asks you to reflect on the review process you follow for the papers submitted to your conferences and whether you believe the process is effective, producing the best papers and conferences possible. There is a lot that goes into organizing a conference and the SCRC is interested in learning your effective practices so that these can be shared with other societies and councils. Conferences and Technical Meetings data may be found here: <https://ta.ieee.org/operations/conferences> AND <https://ta.ieee.org/metrics-data#!conferences>

Please copy and paste all links.

Your MCE Business Analyst has been copied and will reach out to you separately to discuss your required meeting.

- a) **Please list your society's conferences (100% sponsored conferences, no co-sponsorship involved) and their distribution across IEEE Regions.**

Name of conference	Region(s)
1- IEEE International Ultrasonics Symposium	Rotating
2- IEEE International Symposium on Applied Ferroelectrics	Rotating
3- IEEE International Frequency Control Symposium	Rotating

- b) **List any technical and financial co-sponsored conferences and technical meetings:**

Name of conference or technical meeting	Type of co-sponsorship (technical/financial)	Region(s)
1- European Frequency and Time Forum (EFTF)	Technical co-sponsor (when not joint with IFCS)	R8
2- Ultrasonics Industry Association Conference	Technical co-sponsor	Rotating
3- Symposium on Piezoelectricity, Acoustic Waves, and Device Applications (SPAWDA)	UFFC is technical co-sponsor (IEEE Xplore publication of proceeding papers results in financial income for UFFC)	R10

- c) **Describe how your society benefits from co-sponsorship and how you vet conferences and conference organizers before agreeing to co-sponsor. (approximately 250 words)**

The IEEE IFCS continues its historical relationship with the European Frequency and Time Forum (EFTF) conference. A joint IFCS and EFTF conference is held every two years. In the joint conferences, there are general co-chairs, co-chairs of TPC, and a joint TPC. When EFTF has conferences alone, UFFC-S is a technical co-sponsor. The close relationship between the IFCS and EFTF benefits both UFFC-S and EFTF. The quality of EFTF is also ensured due to close relationships between IFCS and EFTF.

Unsurprisingly the years 2020 and 2021 saw significant disruption due to COVID with conferences switching to virtual attendance. The IEEE ISAF meeting partners with various other related meetings, depending on the periodicity of those meetings and desired locations. This co-sponsorship continued despite the need to switch to virtual attendance. For example, in 2021, although the ISAF conference was fully virtual, it was still held jointly with the International Symposium on Integrated Functionalities (ISIF) and Piezoelectric Force Microscopy Workshop (PFM). In 2022 the ISAF symposium continued in hybrid format but was helped with the Piezoelectric Force Microscopy Workshop (PFM) and European Conference on Application of Polar Dielectrics (ECAPD). These joint conferences enrich the meetings, helping strengthen and foster new collaborations. Possible co-sponsorship of IEEE ISAF meetings is typically discussed at meetings of the Ferroelectrics Standing Committee, however, UFFC remains sole financial sponsor

UFFC-S is also a technical co-sponsor of the Symposium on Piezoelectricity, Acoustic Waves, and Device Applications (SPAWDA), and has a dedicated representative to the SPAWDA organizing committee. SPAWDA conference, which has around 300 participants, increases the visibility of society and enriches our global outreach.

- d) **Describe how your society ensures that its conferences and technical meetings are of value to the community, providing innovation, outreach, etc. Provide examples of new technologies introduced at conferences, innovative session formats, opportunities for networking and global outreach, etc., that might be useful for other societies or councils. (approximately 250 words)**

After experimenting with hybrid meetings during the pandemic, we have adopted a format for all three flagship conferences that benefits both in-person participants and those who cannot travel for a variety of reasons. Conference participants provide pre-recorded videos of all oral and poster presentations, which can be viewed online during and after the conference using the ConFlux and CATAVault platforms. This format serves the 20%-30% of participants at our conferences who attend virtually and cannot travel due to visa, travel, family, health, financial, or sustainability restrictions, and also allows in-person participants to view talks held in parallel sessions.

The society invested in and developed its own online virtual platform, CATAVault, which ran as a test platform through 2022 and has been fully operational since 2023. The online platform has also enabled the society to try innovative marketing strategies for industry participants, for example, offering 7 free online registrations for every 3 full-price registrations. The platform has also allowed the addition of English subtitles to broaden access. For example, beginning in 2020, IUS, IFCS, and, starting in 2022, LAUS have added English subtitles to online materials.

At ISAF 2023, a new symposium format called "Featured Invited Talks" was introduced, with sustainability as the central theme. These talks were designed to combine the depth of invited talks, with the broad reach of plenary sessions. Speakers were encouraged to address both the technical aspects of their work and the broader, big-picture sustainability challenges facing the world today.

ISAF 2023 also hosted its first-ever event dedicated to supporting LGBTQ+ individuals and their allies.

We joined forces with the American Society of Echocardiography to organize a unique hackathon, where teams of UFFC engineers and ASE clinicians worked together to solve clinical issues related to cardiac intensive care patients. We also collaborated with the Focused Ultrasound Foundation for cross-exhibition at main conferences and sponsorship of clinical sessions at IUS.

These are just a few of the practices that could be of interest to the broader community.

- e) **Describe how your society ensures that the conferences you sponsor and co-sponsor are of high quality and the materials presented and distributed are of high quality.**

To ensure a high quality of the flagship conferences, the mode of operation is fairly the same between the 3 technical areas. A technical program committee (TPC) is in charge of evaluating the submitted abstracts and generating the technical program.

- IEEE International Ultrasonics Symposium (IUS): The call for papers is circulated very widely internationally. The Technical Program Committee (TPC) is composed of 5 groups with a total of 262 members. They review all the submitted abstracts. The acceptance rates range from about 70% to 90% depending on the TPC group.
- IEEE International Symposium on Applications of Ferroelectrics (ISAF): ISAF's TPC is composed of 4 groups, each consisting of 5 to 8 individuals. These groups provide input to conference general and technical chairs on invitations for plenary and invited talks. The groups also review submitted abstracts and make recommendations on acceptance for oral presentation, as a poster or rejection. When ISAF is jointly organized with other conferences, general co-chairs and chairs of TPC of each conference are assigned.
- IEEE International Frequency Control Symposium (IFCS): IFCS has a well-established TPC with several groups. The TPC selects abstracts and assembles them into a technical program. When IFCS is jointly organized with the European Frequency and Time Forum (EFTF), general co-chairs, co-chairs of TPC, and a joint TPC are assigned. When EFTF has conferences alone, UFFC-S is a technical co-sponsor. The close relationship between the IFCS and EFTF benefits both UFFC-S and EFTF. The quality of EFTF is also ensured due to close relationships between IFCS and EFTF.

The acceptance rate for the UFFC- Joint Symposium 2024 is 82%

- f) **Describe how your society provides formal guidance related to peer review for conferences, including plagiarism checking and how this guidance is communicated (approximately 150 words). If your society does not have formal guidance regarding peer review for conferences, IEEE Meetings, Conferences & Events (MCE) staff can assist in developing such guidance.**

All our conferences use ePapers, an online abstract / paper management portal. Proceedings Chairs interpret Crosscheck results checking for plagiarism, in accordance with IEEE PSPB operations manual. Plagiarism checking is communicated to authors via the conference website.

For IUS, each abstract is reviewed by a varying number of reviewers (at least 8), depending on the group. Average scores, plus TPC discussion, are used to decide acceptance of abstracts. A threshold score is defined to determine the number of accepted abstracts. Average scores are used to determine student paper competition finalists and if students can get travel support.

IEEE International Frequency Control Symposium (IFCS) has a well established process of appointing the TPC and then six Vice Chairs to cover the technical areas. Each technical area also has 6 members. The committee is appointed for 2 years with 50% rotation of participants rotated. Members of the committee perform the reviewing of the abstracts.

In 2023 IUS moved to a double blind review process, which was shown to unbiased reviews. This will be used across the society for all three technical areas for the UFFC -Joint Symposium in September 2024.

- g) **Who is your society's MCE representative and how effective is the MCE's support for your conferences and technical meetings?**

UFFC-S employs a professional conference organizer Conference Catalyst rather than IEEE conference services.

The UFFC-S MCE Customer Relations Specialist is Travis Chigi, with whom we maintain regular contact.

- h) **How does the society handle the technically co-sponsored conferences fees? If on a case by case basis, what is the criteria?**

Technically co-sponsored conference fees are generally covered by the conference. UFFC covers a portion of the fees on request, where the conference cannot financially support the full fees, or where there is a longstanding close interaction between the communities. In which case, UFFC will pay the \$1450 per event fee and the conference covers the \$22 per paper charge.

- i) **Does the Conference Publications distribution income justify the TCs' fee cost, especially if the Society pays it?**

UFFC considers the TC fees to be justified so that a broader range of research and technical literature can be included in IEEE Xplore, and consequently be useful for the global scientific community. The conference proceedings are understood to increase revenue for UFFC-S due to the publications distributions. Although it is difficult to know the society revenues from specific proceedings, the total proceedings revenue far exceeds the sum of co-sponsor fees.

- j) **Please explain what the Society is doing to meet the 20% surplus conference guideline. How do the financially co-sponsored conferences perform? Do they make budget or miss? Are they hitting the 20% surplus goal? (approximately 150 words)**

All UFFC conferences' budgets are reviewed at bidding and one year ahead of the conference by the corresponding technical standing committees and by AdCom to ensure they are on target to achieve the 20% surplus objective. The committees include experienced conference organizers to provide feedback and set realistic expectations. One conference (IFCS) has continuity in the organizing committee to pass along knowledge. UFFC-S has also contracted a professional conference organizer (Conference Catalysts) to professionalize management of all our conferences. This provides more consistency in organization and budgeting.

The flagship conferences generally have a surplus. Four of the last 5 IUS, our largest meeting, had >20% surplus due to strong growth in registrations, even when implementing a buy-3-get-10 registration discount for virtual participants. The exception is 2022, where a high proportion of student registrants limited income. The smaller ISAF and IFCS typically vary because they are much smaller, but usually break even.

Our new global outreach conferences are planned to be revenue neutral with UFFC financial support for conference management, so that registration covers local costs.

- k) **Explain your society's conference portfolio oversight process. (approximately 150 words)**

The technical standing committees of the three technical areas provide direct oversight to the corresponding conference. The committees make the selection of the venues and the general chair and members of the organizing committees. They supervise the organization of the conferences by reviewing the technical programs, finances and suitability of the venue and local issues. Final decision and validation of conferences' venues and general chairs are given by AdCom.

- l) **Describe how you review and evaluate your conference portfolio for technical currency, IEEE regional distribution, financial health, ROI and ability to drive to your society's overall strategic goals. (approximately 150 words)**

The technical committees and the society in general work relentlessly to maintain the technical currency of the three conferences. This is usually achieved through attractive technical programs, highly renown invited speakers who address topical research findings and tutorials which are attractive to students and the audience.

The society conferences take place in different locations and rotate around the world in America, Europe and Asia-Pacific on a yearly basis. We have recently expanded our activities in region 9 with regional Latin American Ultrasonics Symposium and IFCS scheduled in Mexico.

Historically, all conference budgets are approved by the Finance Committee and AdCom. The Symposia Finance Chair is an individual part of a small cohort, trained by IEEE for financial management, as well as serving a multi-year term on the Finance Committee. Additionally, since 2018, a multi-year contract has been put in place with Conference Catalysts for PCO, which includes terms for financial success of each symposia (surplus in excess of 20%)

- m) **How useful and/or effective was the feedback about your conference portfolio that was provided by the IEEE Conferences Committee? (approximately 150 words – ALSO please attach the report provided by CPRC)**

The CPRC report received during the summer of 2024 indicated a critical issue with the average time to close accounting and problems with publication delays. After our meeting with the CPRC, we analyzed these issues and identified the reasons for the delays. An Extended Summary Draft for the CPRC Discussion with UFFC-S representatives (which can be downloaded at <https://drive.google.com/file/d/1naw3VeLI2NyU33V9-9iChelCc5hx6r4V/view?usp=sharing>) was received at the time this SCRC report was being submitted.

- n) **Describe the role of your society Chapters and Technical Committees in conference development, planning and management. (approximately 150 words)**

UFFC Xi'an Chapter students were involved in the preparations for the IEEE IUS 2021 conference which was to be held in Xi'an Sept 2021, but was ultimately held virtually.

In June 2023, UFFC's USC chapter sent chapter members Chi-Feng Chang and Yushun Zeng to serve as UFFC booth at the IEEE IMS 2023 Society Pavilion to promote membership of UFFC.

The Technical Committees are fully responsible for the planning of invited and plenary speaker nominees, as well as review of all the submitted abstracts. The selection of any symposia venue and General Chair is also made by the Technical Standing Committees of the respective Ultrasonics, Ferroelectrics, and Frequency Control Committees

- o) **Related to 100% sponsored conferences (no co-sponsorship involved), describe how your society manages the transition between year-to-year conference governance, including site and leadership selection, succession contingencies, oversight responsibilities, etc. If there is a written guide for planning and executing successful conferences, please summarize the top three key features here and provide a copy with this SCRC report. (approximately 250 words).**

Since the geographic location of 3 conferences is based on a rotation rule, a new organizing committee is set every year for each conference. The corresponding technical standing committees vote for each venue and organizing committee. The standing committees review all aspects of the conferences including venue selection, planning, budget and technical program.

A guidebook that provides specific information, advice and hints as to organizing UFFC conferences has been prepared and is being circulated for review. However, with transition to a PCO, we hope that most organizational aspects and oversight can be controlled by the PCO, releasing to the General Chair the more "creative tasks" with respect to organization of successful events.

- p) **Explain your society's approach to include underserved demographic, technical or IEEE regional communities at conferences. (approximately 150 words)**

Regional Conferences / Special Initiatives: Latin America (LAUS 2024 (in person) and 2021 (virtual)) and South Asia (SAUS 2024) Ultrasonics Symposia for underserved regions. This program is planned to be continued in other regions such as South East Asia, North Africa, Middle East, Eastern Europe, and Central Asia, for all technical areas.

Outreach ambassador: This ambassador has visited underserved and low- and middle-income countries (LMICs) such as Uruguay and India, with more visits planned. During these trips, the ambassador provides lectures on acoustics and meets with students and PIs. The goal of these meetings is to generate enthusiasm for our society and engage in inspiring discussions with students and staff on career perspectives, networking, and education. The ambassador also encourages them to go abroad or connects them with other groups working on similar topics. Additionally, the ambassador contributes ideas on how to involve underserved regions and LMICs more actively in our society. The program is planned to be continued.

Others: Online conference platform with videos for all presentations with access persistent after the conference; LMIC registration rates; UFFC Scholars Programme

- q) **How effective do your society's conference organizers find the complimentary services provided by IEEE MCE, such as the conference mentor program, assistant treasurer program, conference educational webinars, conference consultation calls or discussions with your society's MCE Customer Relationship Manager to help evaluate your conference portfolio? (approximately 150 words)**

N/A

- r) **Evaluate the effectiveness of the conference reporting provided on the TA Operations website <https://ta.ieee.org/operations/conferences> . (approximately 150 words)**

Pertinent conference data is supplied by the society's PCO, Conference Catalyst. Information supplied on the TA operations website seems broad and designed to compare Organizational Units and societies. Some of the financial data concerning proceedings revenue is useful.

- s) **Are there ways the IEEE could help you in achieving your society's goals for conferences and technical meetings?**

As with Operations, we have raised questions through our representatives at the TAB level about IEEE responsiveness, the timeliness of communications, the handling of contracts, and the rigidity of forms and contracts, which at times negatively affect the preparation and execution of our conferences and technical meetings. In a recent survey conducted by TAB at the IEEE level, our concerns were shared by Presidents of other Societies.

7. Publications

NOTE: The items in this section are designed to help you reflect on how well your publications portfolio is serving your professional community. Please consider the following issues with regard to publications:

- Do you have too many publications or too few?
- Are there ways for you to better serve your constituencies by co-sponsoring new publications with another society or council?
- Does your overall portfolio earn a profit for your society?
- Do you have a significant backlog that influences your submission-to-publication time?
- Is your page count too low?
- Do you publish too frequently or not frequently enough?

When you analyze your publications, please consider the percentage of Associate Editors, authors and members and assess if the percentages match by region or if some regions are over or under represented by one or two groups. Finally, the Periodicals Review and Advisory Committee (PRAC) is the committee that reviews all society and council publications. SCRC works very closely with TAB Periodicals Committee (PerCom) and PRAC to ensure that PRAC recommendations are addressed; therefore, you will find a question that asks you to list PRAC recommendations and your method of implementation. PRAC information can be found here: <https://ta.ieee.org/operations/periodicals> AND <https://ta.ieee.org/metrics-data#!periodicals> AND <https://xploreanalytics.ieee.org/landingpage> (please copy and paste all links)

a) Please summarize your publications portfolio:

Title	Inaugural year	Issues published/year	Sponsored (Y/N)?	Financially co-sponsored (Y/N)? If Y enter % sponsorship and other sponsor(s)	Technically co-sponsored (Y/N)? If Y enter other sponsor(s)
IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control (T-UFFC) (Hybrid OA: IF 3.0)	1984. Although the founding journal dates to 1954	12 per year	Y	N (100% UFFC-S)	N (100% UFFC-S)
IEEE Open Journal of the Ultrasonics, Ferroelectrics, and Frequency Control Society (OJ-UFFC) (Gold OA)	2021	1 vol. per year	Y	N (100% UFFC-S)	N (100% UFFC-S)
IEEE Transactions on Medical Imaging (TMI) (Hybrid OA: IF 8.9)	1982	12 per year	Y	Y Ultrasonics, Ferroelectrics and Frequency Control Society [15%] Engineering in Medicine & Biology Society [35%] Signal Processing Society [35%] Nuclear and Plasma Sciences Society [15%]	Y Ultrasonics, Ferroelectrics and Frequency Control Society [15%] Engineering in Medicine & Biology Society [35%] Signal Processing Society [35%] Nuclear and Plasma Sciences Society [15%]

IEEE Journal of Lightwave Technology (Hybrid OA: IF 4.1)	1983	24 per year (6 per year in print)	Y	Y	Y
IEEE Transactions on Quantum Engineering (Gold OA)	2020	1 vol. per year	Y	Y	Y
IEEE Transactions on Materials for Electron Devices (Hybrid OA)	2023		N	N	Y Ultrasonics, Ferroelectrics and Frequency Control Society

Title	Financial net prior 5 years (provide one entry per year for a total of 5 entries)	Sub-to-pub time (electronic) (provide one entry per year for a total of 5 entries)	Sub-to-pub time (paper) (provide one entry per year for a total of 5 entries)	Publish with IEEE (Y/N)? If N, who is the publisher?	Use ScholarOne (Y/N)?
IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control (T-UFFC)	2019: \$ 386.2 2020: \$ 464.7 2021: \$ 414.6 2022: \$ 377.2 2023: \$ 380.1	2019 14.0 2020 14.2 2021 12.8 2022 9.0 2023 8.5 2024 (Q2): 7.7	N/A	Y	Y
IEEE Open Journal of the Ultrasonics, Ferroelectrics, and Frequency Control Society (OJ-UFFC)	2019: N/A 2020: N/A 2021: (\$12.9) 2022: (\$16.3) 2023: (\$14.9)	2019 – 2020 – 2021 12.9 2022 15.0 2023 16.5 2024 (Q2): 14.1	N/A	Y	Y
IEEE Transactions on Medical Imaging (TMI)	2019: \$ 59.3 2020: \$ 91.3	2019 9.7 2020 9.2 2021 10.0	N/A	Y	Y

	2021: \$126.7 2022: \$131.6 2023: \$116.4	2022 11.6 2023 12.0 2024 (Q2): 12.1			
IEEE Journal of Lightwave Technology (JTL)	2019: \$ 7.2 2020: \$ 11.4 2021: \$ 11.2 2022: \$ 12.6 2023: \$ 12.9	2019 17.4 2020 15.3 2021 16.8 2022 16.9 2023 17.7 2024 (Q2): 17.5	2019 35 2020 36 2021 35 2022 36 2023 39	Y	Y
IEEE Transactions on Quantum Engineering (TQE)	2019: N/A 2020: (\$ 0.7) 2021: (\$ 1.3) 2022: \$ 4.9 2023: \$ 5.2	2019 – 2020 11.5 2021 16.0 2022 19.6 2023 23.3 2024 (Q2): 23.6	N/A	Y Joint with Optica Publishing Group	N

Title	List Primary Competing Publications	Society Comment on the Financial Threat from Publication (Brief strategic comment)	Society Comment on the Technical Threat from Publication (Brief strategic comment)
Ultrasound in Medicine & Biology Impact Factor: 2.4	Elsevier	There is a significant threat to lose medical ultrasound content to this journal. The strategy is to improve IF and timeliness and it should be noted that currently T-UFFC has a higher impact factor, immediacy index and citation half life than UMB.	The journal is well known as a top biomedical ultrasound periodical and its scope overlaps substantially with the medical ultrasonics component of T-UFFC. T-UFFC strives to be the dominant technical home for engineering and technology of biomedical ultrasound.
Ultrasonics Impact Factor: 3.8	Elsevier	Boosted bibliometrics (IF currently higher than T-UFFC) may draw certain authors in all areas of ultrasonics research away from submitting their best work to T-UFFC. The strategy is to improve IF and timeliness.	The scientific reputation of this journal that covers the entire spectrum of ultrasound research, technology and applications is historically less strong than for T-UFFC. The strategy is to maintain our reputation for excellence in the T-UFFC technical domain, our higher citation half life and compete strongly with respect to bibliometrics and timeliness.
Journal of Applied Physics Impact Factor: 2.7	American Institute of Physics	There is a significant threat to loss of both Ferroelectric and Frequency Control material, particularly in the device area. The strategy has been to show advantages in terms of timeliness and bibliometrics. Currently T-UFFC has a higher IF.	Since some authors in our technical community more strongly identify with the physics community this journal poses a technical threat. Significant efforts have been underway to better attract this community to our journals through author workshops and a conference-to-reviewed-publication track proposal toward OJ-UFFC.
Applied Physics Letters Impact Factor: 3.5	American Institute of Physics	This journal was also identified in early results to an on-going survey as an often preferred alternative to our journals in the Ferroelectrics community. Gains are yet needed to rival this journal's higher impact factor. T-UFFC offers very timely publication of longer manuscripts	This journal provides rapid publications of letters describing new findings in applied physics that is highly recognized by researchers in ferroelectrics, advanced materials and biosensors. Strategy here is oriented toward the capacity of OJ-UFFC to provide fast track publication of high quality material

		than can be published in APL and has chosen not to compete for letter-format submissions.	from our conferences in letter format as well as to refine editorial process to attract and highlight contributions from these areas.
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b) Describe the unique features and/or effective practices about your publications that the SCRC could share with other Societies and Councils. (approximately 300 words)

The overall **strategy** has been centered on increasing the reputation of our journals through quality editorial policy while building the newly-initiated OJ-UFFC. T-UFFC has successfully innovated to improve quality, timeliness and impact over the past five-year period. The evolution of the submission to publication time is very significant. In 2019, the average submission to electronic publication time was 14 weeks. In 2024, T-UFFC ranks #10 in submission-to-first decision time (4.3 week average) and #8 in submission-to-publication time (7.7 week average) among all IEEE periodicals. With respect to its primary competitors, the IF for T-UFFC has attained a position above 2 of the 4 primary competitors listed above (> Ultrasound and Medicine and Biology, and Journal of Applied Physics). Since its creation in 2021, OJ-UFFC has concentrated on providing publication visibility through open access and topical highlights (Micromachined Ultrasonic Transducers, Super-resolution Ultrasound Imaging, Acoustic Metamaterials and Phononic Crystals at the Ultrasonic Frequency Range, Air-Coupled Ultrasound) while beginning to explore publication policies integrated with the Society's technical committees and conferences to attract emerging research for peer-reviewed publication as express letters. By regularly filling its volumes with quality contributions it has an estimated citescore for the period from 2021 to 2023 of approximately 4.3 and was submitted for Clarivate indexing last year. Publications aspects related to the newsletter, website and publicity are also actively followed through regular meetings to make the most of these avenues to communicate within our domain.

Recently implemented, specific practices and features that have contributed to the improved competitive situation of T-UFFC and could be recommended to other S/C are :

Modernized article layout: An attractive, at a glance article layout with a front-page graphical abstract and a highlight box on the second page has been adopted since January 2023 to facilitate browsing and attract readers.

Quality Driven Research Focus: In 2022, 4 evaluation criteria were defined and published (document available on-line). A reviewer guide has been drafted and published to inform reviewers and the UFFC community about the Journal's quality standard. Communication of the four well-defined editorial criteria (novelty, significance, rigor, writing quality) to potential authors and editors encourage high quality submissions and place the review process on a firm and transparent framework.

Editorial policy: The editorial process continues to include administrative then editorial pre-screening steps prior to AE assignment. In December 2021, term limits (3 year, once renewable) and the AE appointment procedure were up-dated resulting in an editorial board with fewer but more experienced and reactive members. An AE training workshop was designed and has been repeated regularly to refresh current AEs and to onboard new ones.

Engagement: Active effort has been deployed to build strong relations with readers, authors and reviewers. Since 2022, UFFC-S has sponsored T-UFFC to host a series of workshops for authors (in person), reviewers (online and in person) and editors (in person). Four new UFFC-S sponsored awards have been approved and are currently being introduced to highlight the quality of T-UFFC authors, editors and reviewers.

c) Summarize your philosophy regarding publishing new content or content in emerging technical areas. Examples may include the decision to create a new title, expand existing titles with special issues and pursue co-sponsoring with other IEEE or non-IEEE groups. (approximately 200 words)

Our journals strive to identify key trends and fast-moving domains where the need for the exchange of ideas is intense and where the best emerging work can be regrouped to provide a multi-perspective, insight-building forum.

Topical issues, rebranded as “spotlight issues” in T-UFFC, are regularly published in both journals. Topical issue proposals are approved based on the significance and timely importance of the topic to the UFFC community. The professional background of proposed Guest Editors is carefully screened to ensure their scientific reputation with respect to the special issue topic.

To maintain quality in the journals, conference material is no longer published directly in either of the journals. However, both journals encourage submission of significantly expanded manuscripts based on proceedings for peer review. Since 2023, experimentation is underway to integrate alternative publication track options for conference papers, either to proceedings as usual or through reviewed submission of a letter for publication in OJ-UFFC. The 2nd trial of this approach is underway for the 2024 Joint Symposium and consultation is underway with members of the Sensors Council to draw from their experience with a successful conference paper to reviewed letter track.

Pertinent co-sponsorship opportunities are actively pursued. In 2020, UFFC-S negotiated a 10% financial co-sponsorship with the emerging OA journal TQE. It does not yet have an impact factor but its Scopus citescore has advanced strongly and has a positive financial return. In 2023, UFFC-S became a technical co-sponsor for TMED with the goal to contribute to the development of this new journal while providing an outlet for part of the UFFC-S community that are searching for a publication platform at the intersection of materials and devices.

- d) **Summarize your plans to expand your portfolio over the next 5 years. (approximately 150 words) If you have specific plans for expanding your portfolio, use the below table to provide these specifics.**

To comply with Plan S, OJ-UFFC was initiated in 2021. Sufficient, quality submissions are obtained thanks to strong editorial policy and OJ-UFFC has been submitted to Clarivate for indexing. Effective portfolio expansion is limited because our 2 scope-matched journals (T-UFFC and OJ-UFFC) both now satisfy Plan S. Review of publication profiles and society committee discussions indicate some authors would prefer T-UFFC’s scope to be more centered on ultrasonic engineering and that ferroelectrics and frequency control communities predominately publish with competitors (Journal of the American Ceramic Society, Applied Physics Letters). A society-wide consultation is underway to explore ways to make our two journals more complementary to each other. This segmentation based on scope and format will be used to develop our portfolio to attract new readers and authors while increasing the visibility of established authors. Proceedings have been expanded to document work presented at the new UFFC-S sponsored IEEE UFFC Latin America Ultrasonics Symposium 2021, 2024 and South Asian Ultrasonics Symposium 2024.

Proposed title for new publication	Proposed inaugural year	Proposed issues published /year	Sponsored (Y/N)?	Financially co-sponsored (Y/N)? If Y, enter % sponsorship and other sponsor(s)	Technically co-sponsored (Y/N)? If Y, enter other sponsor(s)
n/a					

- e) **Please provide Associate Editor (AE), author and membership demographics:**

Title	AE % by Region	Author % by Region	Membership percentage by region	% of male AEs	% of AEs from Academia/ Industry/Govt/ Other
IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control (T-UFFC) (Hybrid OA)	1-6: 38.78% 7: 10.2% 8: 26.53% 9: 2.04% 10: 22.4%	1-6: 24.86 % 7: 4.86 % 8: 32.43 % 9: – 10: 37.84 %	1-6: 38.82 7: 5.06 8: 26.57 9: 3.13 10: 26.42	M: 83% F: 17% O: 0%	Academia: 86% Industry: 6% Government: 8%
IEEE Open Journal of the Ultrasonics, Ferroelectrics, and Frequency Control Society (OJ-UFFC) (Gold OA)	1-6: 62.5% 7: 8: 9: 10: 37.5%	1-6: 25.42% 7: 3.38% 8: 50.85% 9: - 10: 20.34%	1-6: 38.82 7: 5.06 8: 26.57 9: 3.13 10: 26.42	M: 75% F: 25% O: 0%	Academia: 88% Industry: 0% Government: 12%

f) Provide information on Editor-in-Chief (EiC) and AE term limits and number of terms:

Title	Does EiC have a term limit (Y/N)? If Y, what is it?	Does EiC have a limited number of terms (Y/N)? If Y, what is it?	Does AE have a term limit (Y/N)? If Y, what is it?	Does AE have a limited number of terms (Y/N)? If Y, what is it?
T-UFFC	Y, 3 years	Y, 2 terms	Y 3-year	Y, 2 terms
OJ-UFFC	Y, 3 years	Y, 2 terms	Y 3-year	Y, 2 terms

g) List the recommendations from your latest PRAC review and your responses to these recommendations:

Title	PRAC recommendation	Society response
T-UFFC	<i>Review Committee Remarks Regarding this Periodical: "Overall, the performance of this periodical is quite impressive, namely in terms of timeliness."</i>	The Society responded actively to the comments in the 2019 PRAC report for T-UFFC and the society response to these comments was detailed in the last society review. The substantial efforts engaged have been very fruitful and the only written remark received to-date in the PRAC system (to the left here) for our last review is very positive. Within the report exchange process we have slightly amended several sections of the report to respond to the committee's feedback about operational aspects of the journal. Changes that will modify practice going forward are the decision, based on PRAC review comments, to impose a 70% originality requirement on submissions based on extensions from conference proceedings and the plan to renew a strategic plan self-study involving the next T-UFFC EIC and the UFFC President Elect.

h) Please summarize your society's experience with Open Access. (approximately 150 words)

The Gold Open Access Journal OJ-UFFC which mirrors the current offering of T-UFFC was created in 2021 to comply with Plan S requirements in accordance with IEEE recommendations. The submission attraction advantage of the young journal was seriously undercut by the IEEE policy shift in November 2022 toward a Transformative option by which publications in fully hybrid journals like T-UFFC are also Plan S compliant. Our membership size (2090 in 2024) makes it difficult to sustain two strongly overlapping journals. In spite of this, OJ-UFFC has met the objectives necessary for its submission for Clarivate indexing last year. Our strategy to maintain OJ-UFFC and make the most of both journals is to strategically adjust journal scopes and format based on society-wide consultation so that the journals can collectively serve the UFFC community more fully.

i) Are there ways the IEEE could help you with your publications?

Continued improvements of the Xplore interface in collaboration with journal EICs is needed to highlight content and to make the most of article layouts and images.
Maintaining a high standard for timeliness in IEEE publication services is essential for our journals to be competitive.
Well-informed, documented and up-to-date guidance regarding major changes in the publication context (government policies impacting publications or IEEE strategy changes, for example) should be shared regularly with the publications team.
Inclusion of capabilities in Manuscript Central able to separately track the geographical distribution of authors for special issues and to maintain a geographical distribution of reviewers would help the publications team ensure we recruit reviewers on an international basis.
More support from IEEE to improve the visibility of T-UFFC and OJ-UFFC articles beyond our own community would contribute to the impact of the journals.
Additional support from the IEEE should be given to help societies deal with the policy shift that has qualified hybrid journals as 'transformative journals' under Plan S, a change that has placed open journals and transformative journal counterparts in direct competition.

8. Education

NOTE: The items in this section are designed to help you reflect on your society's strategies to support educational activities. In this section, we ask about your strategy, supporting structure, current and planned educational offerings to your constituents. Each organizational unit is unique and the education offerings suitable for each organizational unit are also unique. The SCRC would like to understand these unique activities and seek opportunities to share best practices among societies and councils. Please take a moment to visit the ea.ieee.org volunteer website and specifically the Program page: <https://ea.ieee.org/ea-programs>.

- a) Please summarize your society's *strategy* to support the education in your field to your members, those working in your field, potential or future students and the public. (approximately 150 words)

Our strategy is to initiate, experiment, evaluate and re-experiment several educational programs to serve our members, community and the public. Current examples include the Schools program, which we support financially by reducing cost for student and young professional members to participate; production of on-line educational videos resources originated from technical symposia; on-line videos of university-level lectures prepared by experts in those areas; Distinguished Lecturers; Outreach Ambassador; and our long term travel support program for student members to attend conferences in person.

- b) Indicate your society's recent educational offerings to members. Include information on Distinguished Lecturer programs, tutorials, short courses, workshops and continuing professional education. Please indicate if these are available online and the cost of participation. Specifically highlight any offerings aimed at Young Professionals and other specific target demographics (e.g undergraduates, WIE, industry). Below are several examples:

Activity name	Description	Region / Online	Fee
Distinguished Lecturers	We have three Distinguished Lecturers at any one time, one from each of our Technical Standing Committees, serving partially overlapping 18 month terms. Each Lecturer presents 20 to 30 lectures worldwide during their tenure.	1 x US 1 x R8 1 x R10	UFFC allocates \$25,000 for each lecturer
Travel support for summer school in frequency control	Support young professionals and student members to attend NIST Time and Frequency Seminar, August 2024	R5	\$0 registration fee after support
FerroSchool 2024	The Ferroelectrics technical committee runs an annual International FerroSchools, which will be held in Slovenia in Nov. 2024, after previously being held in Canada and China. UFFC provides funding to reduce registration costs. The emphasis is on educating young professionals and students that will continue their research career and innovation development in this technologically important field.	R8	390 € registration after Society financial support
Special Topic School on Waves and Transducers 2021 & 2022 & 2023	The annual Special Topic School on Waves and Transducers, held live online in 2021 for Canada & Latin America, in North Carolina in Dec. 2022 for R1-R6, and in the Netherlands in Oct. 2023 for R8, has been run by the Ultrasonics committee. UFFC has provided funding to reduce registration costs for student members and young professionals. The	R-1-6, R7, R8 and R9	\$500 registration after Society financial support

	primary objectives are to teach fundamentals of acoustic theory and give hands-on experience with transducer design and fabrication.		
5. CATAVault community resource center and repository	CATAVault is an innovative UFFC-S video library, offering a new approach to delivering educational content to the global community of researchers, professionals, and students. With a wide range of webinars, tutorials, conference presentations, and more, CATAVault aims to enhance the learning experience for individuals in the fields of ultrasonics, ferroelectrics, and frequency control.	online, global	Free, with membership or conference attendance

c) Please highlight any specific challenges or notable achievements in the above offerings:

CATAVault: Our online video repository CATAVault contains more than 6,800 videos, including conference presentations, tutorials, courses, and other educational content that can be cited. Additionally, about 2,000 videos from conferences held in 2024 will be uploaded soon. Visit: <https://catavault.ieee-uffc.org/welcome>.

Ultrasonics Schools: The Special Topic School Waves and Transducers is a hands-on, week-long residential school for PhDs and ECRs. The lectures are provided by four to five high-profile scientists from academia and industry. So far, it has run four times (China, USA, Europe, and once online for Canada and Latin America), with 30 participants each time. The school generated a long-lasting network for participants via WhatsApp / WeChat, lab exchanges, and social networks at conferences. In addition to paying attention to science, it also dedicated each time one session on the social aspects of science covering topics as family life, stress, inclusivity, academic competition, etc.

During Covid (2021), the entire course was done online, including some “social events”. The school was attended by PhDs and ECRs from Canada and Latin America, either alone or in pairs depending on local Covid regulations. Packages with all teaching and practical laboratory materials were mailed to the individual participants so that they could still do all the experimental components in their home institutions, or even at their kitchen tables. This school clearly had a great impact on the students well-being during the depressing times of being locked up at home.

Time and Frequency capacity building tools: Time Transfer Through GNSS Pseudorange Measurements. This is a course available to anyone at no cost. UFFC-S was a sponsor in the preparation of the course.

This course aims at providing knowledge and processing capacity to obtain time transfer through GNSS measurements using CGGTTS data for a self-analysis of the measurements by a friendly interface. Also tutorial and the software source code are provided aiming at making the interested scientist informed and independent in getting clock comparison by exploiting the data of a GNSS receiver.

d) List any educational products you offer, such as training manuals, online courses or MOOCs. Highlight any collaborative efforts with IEEE Educational Activities, MGA (sections, chapters, etc.) or other IEEE Organizational Units.

Product name	Description	With OU?	Fee
Online lectures	Introductory Course on Piezoelectric Materials, Properties, and Devices; 29 video lectures; (https://www.youtube.com/watch?v=gBYg2l3cm_I)	n/a	Free
Tutorials	videos from our three flagship conferences /CATAVault	n/a	Free for registered persons
Short Courses	videos from our three flagship conferences / CATAVault	n/a	Free for registered persons
Online lectures	Course on Electroceramics; 21 videos for 18 lectures, with more to be uploaded / CATAVault	n/a	free with password access

IEEE Learning Network (ILN) is an emerging platform for continuing education (CE). It is envisaged that, similar to IEEE Xplore, the platform will be IEEE’s approach for CE. Briefly describe your ILN engagement approach.

n/a

e) Please highlight any specific challenges or notable achievements in the above offerings:

With over 6,800 videos available on CATAVault, and around 2,000 more to be added in 2024, the platform can be considered a success. One challenge, however, is monitoring access to individual videos, which is necessary to evaluate how many people are viewing them.

f) Are there ways the IEEE could help you with your education offerings?

Several of the Schools have been funded via Sponsorship Agreements with the host institution. However, this is not always possible, so Schools have had to be operated as conferences with applications through MCE. The Schools have a small number of participants, have total expenses often below \$50,000 and planning times of only a few months, meaning the conference application and CB account process are too cumbersome and time consuming for the organizers to complete properly. It would be very useful to have a mechanism to fund small events, and process small service contracts for F&B vendors that does not require the same conference administration processes as large, flagship conferences..

9. Technical Committees

NOTE: Technical Committees represent an important mechanism in the Society for serving member interests while also providing a source of volunteers. Technical Committees should reflect developments and trends aligned to the Society FOI. There should also be processes in place to create, evaluate, and (if necessary) eliminate Technical Committees.

a) List the Technical Committees you have in the Society.

Technical Committee	Description and strategic contribution	Chair	Term limit as chair
Ultrasonics Standing Committee	Each technical standing committee has an operation manual, defining the officer roles, their terms of service and the responsibilities. The Technical Standing Committees (TSC) are overall in charge, in the broadest terms, of the technical content of the respective symposia and leading/implementing Society wide initiative within each community.	Helen Mulvana	< 6 Years
Ferroelectrics Standing Committee		Jon Ihlefeld	< 6 Years
Frequency Control Standing Committee		Ekkehard Peik	< 6 Years

b) Describe the metrics you use to assess the success of a Technical Committee. (approximately 150 words)

The biggest success metric is usually provided by the success of the symposia headed by each TSC. Specifically, the attendance as well as financial success are taken into account. Based on the ongoing efforts, new success metrics are added by diversity of the attendees, leadership and technical presenters at the conference.

c) Describe your process for creating and eliminating Technical Committees. (approximately 200 words)

The three major technical standing committees are those corresponding to three major communities within the Society. Hence, we do not expect any of the technical committees to be disbanded in the future.

d) Are there ways the IEEE can help you?

The Society is open to considering all suggestions.

10. Membership

NOTE: The items in this section are designed to help you reflect on your strategy for involving individuals in your Field of Interest. Example strategies could be the following:

- increasing membership
- maintaining the current membership numbers
- increasing number of chapters
- increasing number of members of chapters
- focusing on specific region(s)
- focusing on demographic diversity
- recognizing accomplishments
- organizing chapter activities

Societies have many effective practices in membership and what works for one society might work for others as well. The SCRC is interested in understanding your membership strategies and sharing your effective practices with other societies or councils. Here is additional data to what the Technical Activities (TA) Staff has supplied in this section: <https://ta.ieee.org/operations/membership-development/society-membership-statistics-and-non-member-subscription-statistics#prs> (please copy and paste the link)

a) **Indicate your society’s strategy for membership goals and strategies used to achieve them. (approximately 300 words)**

The society has a strong commitment to engaging the membership across career stages, region, area of work, and membership sub-groups. We offer student and LMIC pricing discounts on UFFC conference pricing and have 2 sponsored sub-conferences in underserved communities (South-east Asia and Latin America). We are currently undergoing a multi-year process to improve diversity and representation at all levels of the society including membership in the Administrative Committee, election processes for technical program committees, Flagship Conference bid process, Society Awards review, with similar reviews occurring at lower levels. The Society has been developing a detailed 5-year and 10-year strategic diversity plan, following a society wide survey, which includes diversity goals and action planning on how to achieve these goals, including term limits.

b) **Please highlight any specific challenges or notable achievements in membership and chapters:**

We were awarded the IEEE TAB Award for Society/Council Impact in Diversity, Equity, and Inclusion based on our commitment to DEI at all levels of the society

c) **The information in the following table can be found in [OU Analytics](#).**

Society Membership per Region (for past 5 years)

Region / Member Grade	2020	2021	2022	2023	2024
Regions 1-6					
Higher Grade	908	924	867	859	864

Graduate Student	105	91	68	68	96
Students	10	7	7	4	4
Affiliates	13	15	13	11	10
TOTAL – Regions 1-6	1036	1037	955	942	974
Percentage Retention	80%	81%	81%	83%	86%
Region 7					
Higher Grade	58	64	55	51	65
Graduate Student	20	13	17	26	19
Students	3	1	0	3	3
Affiliates	2	4	1	1	1
TOTAL – Region 7	83	82	73	81	88
Percentage Retention	59%	69%	68%	72%	71%
Region 8					
Higher Grade	488	481	461	488	451
Graduate Student	84	57	53	63	73
Students	21	16	13	11	7
Affiliates	18	13	8	15	15
TOTAL – Region 8	611	567	535	577	546
Percentage Retention	80%	73%	77%	83%	75%
Region 9					
Higher Grade	18	20	26	26	25
Graduate Student	3	3	12	7	4
Students	0	2	6	4	6
Affiliates	1	1	8	8	3
TOTAL – Region 9	22	26	52	45	38
Percentage Retention	73%	75%	59%	69%	55%
Region 10					
Higher Grade	380	373	410	393	448

Graduate Student	99	61	62	31	58
Students	15	12	5	4	30
Affiliates	10	14	13	12	11
TOTAL – Region 10	504	460	490	440	547
Percentage Retention	73%	67%	78%	70%	82%
TOTAL Regions 1 - 10	2256	2172	2105	2085	2193
Regions 1-10 Retention	78%	75%	79%	79%	81%

d) The information in the following table can be found in OU Analytics. Active is defined by IEEE as a minimum of two meeting reports submitted for the year.

Chapter/Student Branches per Region

Chapter/Student Branches	2024
Regions 1-6	
Chapters	3
Joint Chapters	4
Student Branches	5
TOTAL R 1-6	12
Region 7	
Chapters	0
Joint Chapters	2
Student Branches	1
TOTAL R 7	3
Region 8	
Chapters	2
Joint Chapters	2
Student Branches	1
TOTAL R 8	5
Region 9	
Chapters	0
Joint Chapters	0
Student Branches	1
TOTAL R 9	1
Region 10	
Chapters	0

Joint Chapters	1
Student Branches	6
TOTAL R 10	7
TOTAL Regions 1 - 10	28

Comment: while writing this report, a Student Branch Chapter of IEEE UFFC-S has been formed in the Nanjing Section at the University of Science and Technology of China, in Nanjing, China.

e) Describe the activities the Society is engaged in to attract and retain members. Provide specific examples and comment on specific membership groups including students, Young Professionals, women, industry, academia and chapters.

Activity name	Description	Region	Target members
Virtual Coffee Exchange Event	A casual online event for connection between UFFC industry members	all	Industry members and young professionals
Professional Networking	A collaboration with student reps. This event is a platform for student to interact with professionals, ask their questions and seek their answers	all	Students, Industry members and young professionals
Round Table	Offering a platform for professionals to discuss and talk about a predefined topics during their lunch time.	all	Industry members
Demo and Product Showcase	Offering a dynamic platform for companies and startups to spotlight their cutting-edge products and engage with potential customers and partner	all	Industry members
Transition in Industry Event	Offering valuable insights into navigating transitions at various levels of the industry as well as making the transition into industry from school/academia	all	Students, Industry members and young professionals
Panel discussion	Providing a platform for professionals to ask their questions from industry experts	all	Industry members and young professionals
Student-Professor Meet and Greet	This event is designed for student members to have the opportunity to network with the UFFC Society's academic leaders.	all	Students, Academic leaders
Mentorship Luncheon	IUS 2023 - Connect with leaders in ultrasonics from academia and industry and ask questions about career advice and next steps for students	all	Students, Industry, Academia

Careers and CV writing	ISAF - 2023 - Workshop to assist with writing CVs and resumes for various career paths	all	Students, Industry, Academia
Student Pitch Competition	All Symposia - This is intended to help employers find new team members or postdocs and help students expand their professional network.	all	Students, Industry, Academia
Student Social	All Symposia - This casual social event is designed to fuel connection between attendees and create future friends	all	Students
Multimedia competition	ISAF - 2023 - Showing off the best student contributions in photos, animations, figures, or short video	all	Students
Women in Engineering Luncheon	All Symposia - This casual social event is designed to fuel connection between attendees and create future friends. Also commonly features a talk or workshop relevant to the group	all	Women in Engineering
Chapter Technical Talks	Several UFFC chapters host technical talks relevant to society members in their geographic region on a approximately quarterly basis	all	Chapter members and other interested parties
Special UFFC Chapter Session	A special session at the RITS (Research in Imaging and Health Sciences) meeting in 2024 was held to celebrate the launch of the new UFFC France Chapter	R8	All

- f) **Describe how you are achieving demographic diversity in your membership. (approximately 150 words) Demographic diversity includes geographic, industry/academia, male/female, students and young professionals.**

The Society has long-standing committees on Diversity and Inclusion, Awards, Membership and Data Analytics, Nominations, Fellows, Education, Chapters, Women in Engineering, Publicity and Young Professionals and has in the last five years created committees focused on Industrial Engagement and Volunteer Engagement. This allows targeted outreach based on the needs of individual sub-groups, increasing engagement and overall membership satisfaction.

- g) **List the awards given by your society. Describe how the Society recognizes and publicizes members' accomplishments. Examples may include awards (students, fellowship, best conference/journal/transaction papers, chapters/branches, new technology, life achievement, technical, meritorious service, etc.), postings to the Society website and processes for elevation to Fellow status.**

Recognition	Description
All Awards	Awards are announced on the society website, in the email newsletter, via social media channels and at all society symposia
Fellowship	The society has a committee established to select nominees for fellowship from the membership.
Society Awards	
Achievement Award	To recognize outstanding contributions to or technical achievements in the field of ultrasonics, ferroelectrics, and frequency control.
Distinguished Service	To recognize meritorious service to the UFFC Society over a sustained period of time.
Distinguished Lecturer	Lectures given at a major Symposium sponsored by the Society.
IEEE UFFC Star Ambassador Lectureship Award	UFFC-S has established the "IEEE UFFC Star Ambassador Lectureship Award", similar to our Distinguished Lecturer award, but intended to be for more local travel and for early career speakers.
Ultrasonic Awards	
IEEE Ultrasonics Early Career Investigator Award	To recognize the achievements of a young researcher in the area of ultrasonics and its applications. The award is specific to those researchers in the early stages of their career.
IEEE Carl Hellmuth Hertz Ultrasonics Award	To recognize primary investigators that have contributed to the field of ultrasonics.
IEEE UFFC Rayleigh Ultrasonics Award	The IEEE UFFC Rayleigh Ultrasonics Award represents the highest honor for achievement within the IEEE Ultrasonics, Ferroelectrics, and Frequency Control (UFFC) Society in the field of Ultrasound
Student Paper Award	A student paper competition is held at the annual IEEE Ultrasonics Symposium. Six winners are selected, two from Medical Ultrasonics and one from each of the other technical groups.

Frequency Control Awards	
Walter G. Cady Award	To recognize technical contributions in the area of piezoelectric frequency control devices.
I.I.Rabi Award	To recognize technical contributions in the fields of atomic and molecular frequency standards, time transfer, and frequency and time metrology.
IEEE C. B. Sawyer Memorial Award	To recognize entrepreneurship or leadership in the frequency control community; or outstanding contributions in the development, production, or characterization of resonator materials or structure.
Student Paper Award	Student paper awards are awarded at the annual IEEE International Frequency Control Symposium
Ferroelectrics Awards	
IEEE Ferroelectrics Young Investigator Award	To recognize the important contributions of young scientists/engineers in reference to their contributions to fundamental research, integration, application, or education.
IEEE Ferroelectrics Recognition Award	To recognize meritorious achievement in the field of Ferroelectricity or related sciences.
IEEE Robert E. Newnham Ferroelectrics Award	To recognize investigators in the field of dielectric, piezoelectric and ferroic materials that have contributed significantly to the understanding of structure-property relations.
Student Paper Award	Student paper awards are presented at the annual IEEE International Symposium on Applied Ferroelectrics
Publication Awards	
IEEE UFFC Editorial Excellence Award	To recognize the sustained, dedicated service by an Associate Editor of the IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control.

IEEE UFFC Multidisciplinary Trailblazer Award	To recognize the top paper in the IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control published in the past three years that best demonstrated multidisciplinary excellence in the field of ultrasonics, ferroelectrics, and frequency control.
IEEE UFFC Outstanding Reviewer Award	To recognize experts who have sustainably and frequently provided high-quality review critiques for the IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control.
IEEE UFFC Test of Time Award	To recognize a seminal paper in the IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control published within the past decade that is deemed to have sustained influence and impact in one or more fields of ultrasonics, ferroelectrics, and frequency control.
Outstanding Paper Award	To recognize the outstanding paper published in the IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control.

h) Explain the processes in place to encourage engagement and receive feedback from members. Examples may include web forums, web blogs, email, town halls at conferences, surveys, chapter feedback and networking events with leadership.

Members	Description
Young Professionals, Students, Industry, Women in Engineering	Networking event at Flagship conferences
All	LinkedIn, Facebook, Newsletter, Webpage, Symposium webpages
All	Surveys to targeted members, annual meeting with chapters, sponsored events at flagship conferences
All	CATAVault - custom video platform showcasing talks, webinars and other society focused content

i) Please explain the Society's overall vision and strategy and how you use Society communications to attract and service existing and potential members. (approximately 150 words)

Society and member communications are primarily run and monitored by the Publicity Committee and Conference Catalysts. The Publicity Committee uses a variety of platforms to deliver society related news and events to the relevant members. This year, we have started to showcase journal article highlights across our communications. These include important new areas of research, and key studies from previous years that still have significant relevance or impact to the current research and development landscape. Next steps for the Publicity Committee include the wider promotion of key CATAVault contributions from calendar events as they happen, such as through the Web Team; highlighting important society-relevant journal and conference papers, including but not limited to TUFFC but also the Open journal, IEEE Sensors Journal, and perhaps Ultrasonics (Elsevier); and effective ways of 'spotlighting' emerging or significant fields of ongoing research. We are advertising for a Deputy Chair and Student Volunteer members for the committee (deadline Oct) to assist in supporting these efforts.

j) How do you use communications to attract and service existing and potential members. Describe the procedures in place to ensure that the communication vehicles are up to date. Below table includes examples:

Communication	Description and procedure to keep current
LinkedIn, Facebook	Publicity committee post regular content and is co-administrator with Conference Catalysts. Facebook has 1000 followers and LinkedIn has 1200 and growing.
Newsletter	Society wide newsletter is emailed regularly with events, publication spotlights, society member features and other submitted content from committees and individual members.
Society and conference webpages	Officers and conference chairs send updates to staff person to update pages.
Volunteer Position postings	Both elected and non-elected volunteer positions are posted on the webpage and applications are handled through a designated volunteer committee.

k) Are there ways the IEEE could help you with membership?

IEEE responses to queries about OU Analytics are often unanswered or on a long response time. More timely responses would help with processing novel society data requests.

11. Finance

NOTE: The items in this section are designed to help you reflect on the financial practices of your society. TAB Finance Committee (FinCom) works with societies and councils to ensure that processes are in place for financial oversight and monitoring. SCRC works with FinCom and the societies and councils to ensure that specific FinCom requests to societies and councils are implemented. Additional Finance information (please copy and paste the link): <https://ta.ieee.org/operations/finance>

- a) **Please explain how your society develops and approves its annual budget. Explain where and how the process is documented. (approximately 300 words)**

UFFC-S has a Treasurer, VP Finance and a Finance Committee. The basic task of the Treasurer is to endorse and transmit for payment to IEEE TAB all bills and invoices and ensure conformance to the Society's budget. The VP Finance, who is also the Chair of the Finance Committee, manages the budget development and review process. He/she prepares the initial UFFC-S budget, sends it to the members of the committee for review before subsequent submission to AdCom for approval. In case there is a conflict in the timing of the budget submittal to IEEE and the AdCom meeting, the budget is submitted for approval to AdCom by Email.

The duties of the Finance Committee are to establish a long-range financial policy and monitor and analyze its financial data. The Finance Committee solicits suggestions from AdCom for initiatives and events to be included in the budget. Other spending requests for specific activities are recorded in motions approved by AdCom.

- b) **Describe the Society's financial oversight/monitoring process. Explain where and how the process is documented. (approximately 150 words)**

The Society's financial oversight/monitoring is primarily handled by the Vice President for Finance who chairs the Finance Committee. He/she reviews the monthly IEEE Operating Statements, the Consolidation Statements, the Quarterly Balance Statements (Asset Analysis Reports) and Conference Status Reports along with the Finance Committee. The VP Finance and the Finance Committee also review and comment on each of the three UFFC-S Symposia budgets before they are submitted to AdCom and IEEE so that estimates are realistic and society expectations for event plans and surplus are met. The VP Finance also reports to the UFFC-S AdCom during its meetings. UFFC-S AdCom ultimately has the fiscal responsibility for the UFFC-S.

- c) **Explain the mechanisms used to control spending. (approximately 150 words)**

All direct spending (issuance of checks, payment of invoices) are reviewed and approved by the Treasurer. The VP Finance also is involved in the review process as noted above. Most expenditures, such as events, have known and reviewed budgets to keep spending within expectations. For variable or uncertain spending such as volunteer travel to AdCom meetings, volunteers are notified well in advance about what costs will be covered by the society, and these depend on distance traveled. Remote participation in meetings is also encouraged, where appropriate, to reduce volunteer travel costs.

- d) **Explain the steps taken when variances (positive or negative) from the budget occur during the calendar year. Do you have a process that could allow you to spend any positive forecast variance in the calendar year? (approximately 150 words)**

If the variances of actual from the budget occur for the UFFC-S annual conferences, the conference General Chairs and the Vice President for Finance will bring them to the attention of the AdCom, and in the future conferences, directions are given to the technical Standing Committees and the conference Chairs for implementations. When the Finance Committee notices any financial spending problem, the Vice President for Finance will notify AdCom for AdCom to introduce relevant motions to ensure financial stability and control the spending. UFFC-S Finance Committee will continue to monitor the Society income and expense carefully and especially look at trends.

Since much of the budget is outside of AdCom's direct control (i.e. Publications income, Conference surpluses, membership income), AdCom focusses on new initiatives that positively influence the Society, its operation, and its future growth. Positive forecast variances can be used to enhance these initiatives, though these expenses usually occur in the following year.

It has been difficult to spend positive variances within the calendar year, partly because our largest conferences run near the end of the calendar year, so it is difficult to change or add to those events at last minute, and our relatively small membership has not typically had the capacity to run events or implement initiatives at short notice. Further, where initiatives have been organized near the end of the year, payments through IEEE have not been completed in a timely manner, so spending is actually recorded in the following financial year.

The removal of the 50% and 3% spending rules and move toward balanced budgets will help us to spend according to our society's revenue and expense trends. The Society will be able to prioritize our spending on initiatives that benefit our members and the wider community regardless of the time of year of the events. The VP Finance and Finance Committee can better solicit and review event and spending requests that can use typical positive variances in forecasts, including encouraging our Committees that run events (e.g. Education, Students, Young Professionals, WIE, DEI) to propose interesting events.

e) Describe the budgeting philosophy (budget for a surplus, budget to as close to net zero as possible, etc.). (approximately 150 words)

The Society has typically budgeted for a small surplus, in order to maintain financial health, and to provide a basis for further initiatives to benefit the Society under the 50% rule. Our operating margin, before the initiatives spending, has fluctuated between 7% and nearly 100% (during the pandemic, with no travel, limited events), We expect a return to the approximately 10% margin (before initiatives) of the prior 5 year period, allowing us to budget for new projects and events. The Society welcomes the move to balanced budgeting with the end of the 50% and 3% spending rules, and the Finance Committee will now work towards budgeting as close to net zero as possible. The Finance Committee will use trends in the Society's revenue and expenses to determine funding available for continuing events and new or expanded strategic initiatives. Since initiatives will be incorporated into the primary budget categories, the Finance Committee and AdCom can better understand and set priorities for the Society's spending.

f) Financial Data

I. this information is provided by your BFS Manager 3 months prior to your review. This first chart is a summary of revenue and expense by major categories.



Summary By Cost Center and Product
OU_210200 - Ultrason Ferro & Freq Cntr
\$(000)

		FY20			FY21			FY22			FY23			FY24		
		Actual			Actual			Actual			Actual			Apr Fcst		
		Final			Final			Final			Final			Final		
		Rev	Exp	Net	Rev	Exp	Net	Rev	Exp	Net	Rev	Exp	Net	Rev	Exp	Net
PD_000000 - None	CC_10110 - AdCom	-	-	-	0.6	(0.6)	-	-	52.6	(52.6)	-	-	-	-	-	-
PD_000000 - None	CC_10115 - ExCom	-	-	-	-	-	-	-	-	-	-	41.4	(41.4)	-	-	-
PD_000000 - None	CC_10125 - Technical Committee	-	-	-	-	-	-	-	3.8	(3.8)	-	3.8	(3.8)	-	-	-
PD_000000 - None	CC_10130 - Education Committee	-	-	-	-	-	-	-	50.5	(50.5)	-	87.3	(87.3)	16.6	35.1	(18.5)
PD_000000 - None	CC_10135 - Membership Committee	-	0.7	(0.7)	-	0.7	(0.7)	-	-	-	-	0.7	(0.7)	-	-	-
PD_000000 - None	CC_10140 - Awards Committee	-	2.6	(2.6)	-	2.0	(2.0)	-	-	-	-	-	-	-	-	-
PD_000000 - None	CC_10155 - Chapter Committee	-	-	-	-	-	-	-	1.0	(1.0)	-	-	-	-	-	-
PD_000000 - None	CC_10160 - Other Committee	-	-	-	-	-	-	-	13.2	(13.2)	-	18.3	(18.3)	-	-	-
PD_000000 - None	CC_21015 - Societies Operations	-	317.8	(317.8)	-	291.1	(291.1)	-	635.4	(635.4)	-	736.8	(736.8)	-	-	750.7
PD_000000 - None	CC_21020 - Meetings /Conference	-	33.5	(33.5)	-	16.3	(16.3)	1.5	14.6	(13.2)	5.1	(115.1)	120.3	3.1	25.0	(21.8)
PD_000000 - None	Support	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	(1.9)
PD_505002 - Society Education Products	CC_00000 - None	0.0	3.0	(3.0)	0.0	3.0	(3.0)	0.0	3.0	(3.0)	0.0	3.0	(3.0)	-	3.0	(3.0)
PD_306001 - Society Membership	CC_00000 - None	30.6	0.1	30.6	29.8	2.0	27.7	28.4	0.9	27.4	28.3	4.9	23.4	26.7	1.1	25.6
PD_140000 - Periodical Packaged Products	CC_00000 - None	-	5.7	(5.7)	-	5.5	(5.5)	-	5.5	(5.5)	-	5.4	(5.4)	-	6.0	(6.0)
PD_120000 - Journals Transactions Reviews	CC_00000 - None	630.7	63.9	566.7	783.7	245.4	538.3	1,072.4	562.4	510.0	1,021.5	521.8	499.7	1,063.3	662.6	400.7
PD_220000 - Conference Proceeding	CC_00000 - None	323.6	-	323.6	338.5	-	338.5	549.2	258.0	291.3	562.2	277.8	284.4	529.4	301.6	227.8
PD_210000 - Conference Events	CC_00000 - None	608.0	381.4	226.5	750.1	389.4	360.7	1,572.5	1,403.9	168.5	1,981.2	1,779.3	201.9	2,059.9	1,724.8	335.1
Operational Products	Operational Cost Centers	1,592.9	808.7	784.2	1,902.2	955.9	946.2	3,223.9	3,004.8	219.1	3,598.4	3,365.2	233.2	3,699.0	3,511.7	187.3
PD_000000	CC_21065 - Society Initiatives	-	221.6	(221.6)	-	122.0	(122.0)	-	306.3	(306.3)	-	176.3	(176.3)	-	89.2	(89.2)
PD_000000	CC_21075 - IEEE Reserve Allocation	-	(584.4)	584.4	-	(744.5)	744.5	-	827.5	(827.5)	-	(741.8)	741.8	-	-	-
Total Product	Total Cost Center	1,592.9	445.9	1,147.0	1,902.2	333.5	1,568.7	3,223.9	4,138.6	(914.7)	3,598.4	2,799.7	798.7	3,699.0	3,600.9	98.1
YE Reserve Balance					5,926.2			7,494.9			6,580.2			7,378.8		
Reserve to Expense Ratio *					5.8			7.0			2.0			2.1		

*Periodical packaged product financials shifted from a net to gross distribution in 2022 results (higher expenses recorded); resulting in a decrease of the reserve/expense ratio compared to prior years.

II. Conference financials are requested to clearly indicate performance of society products. Apply the data you received from MCE Business Analyst referred to in your introductory letter. If you did not receive this, please contact your MCE Business Analyst.

Year	2020 (A)	2021 (A)	2022 (A)	2023 (A)	2024 (B)
Income					
IFCS	68	130	380	509	
ISAF		169	281	216	
IUS	408	489	1,161	1,084	
UFFC-JS					2,015
LAUS		53			38
SAUS					45
Total Income	475	841	1,822	1,809	2,099
Expenses					
IFCS	72	78	381	363	

ISAF		91	273	241	
IUS	219	249	1,078	704	
UFFC-JS					1,674
LAUS		51			37
SAUS					41
Total Exp.	292	469	1,732	1,308	1,751
Net					
IFCS	-5	52	-1	146	
ISAF		78	7	-25	
IUS	188	240	83	380	
UFFC-JS					341
LAUS		2			2
SAUS					4
Total Net	184	372	90	501	347

III. Publication Financials are requested to clearly indicate performance of council products. Councils should populate the publication table with the revenue and expense for all products starting with 1XXXXX. This chart shares a more detailed view of revenue and expense by product and cost center.

	Total			Total			Total			Total			Total			Total		
	Revenue	Expense	Net Profit	Revenue	Expense	Net Profit	Revenue	Expense	Net Profit	Revenue	Expense	Net Profit	Revenue	Expense	Net Profit	Revenue	Expense	Net Profit
	Actual FY19	Actual FY19	Actual FY19	Actual FY20	Actual FY20	Actual FY20	Actual FY21	Actual FY21	Actual FY21	Actual FY22	Actual FY22	Actual FY22	Actual FY23	Actual FY23	Actual FY23	Apr Fcst FY24	Apr Fcst FY24	Apr Fcst FY24
PD_100000 - Periodical Products	561	114	447	631	70	561	784	251	533	1,072	568	504	1,022	527	494	1,063	669	395
PD_140018 - UFFC S/C Member Digital Library	0	5	-5	0	6	-6	0	5	-5	0	6	-6	0	5	-5	0	6	-6
PD_120060 - Trans on Ultrasonics, Ferroelectrics & Freq	561	175	386	631	166	465	585	171	415	797	419	377	737	357	380	744	469	276
PD_120108 - Open Journal of Ultrasonics Ferroelectr	0	0	0	0	0	0	1	14	-13	3	19	-16	2	17	-15	23	21	2
PD_120110 - Trans on Medical Imaging	0	-59	59	0	-91	91	174	48	127	234	102	132	240	123	116	254	144	110
PD_120111 - Journal of Lightwave Technology	0	-7	7	0	-11	11	21	10	11	32	20	13	33	20	13	32	23	9
PD_120154 - Transactions on Quantum Engineering	0	0	0	0	1	-1	1	3	-1	7	2	5	9	4	5	9	5	4

*Bolted periodicals represent co-sponsored publications. This is your OU's portion of the financials

g) Explain financial trends over the past five years and describe how the trends show opportunities or risks for the Society. (approximately 300 words)

There are several trends over the past five years.

First, Publications net revenue has an overall downward trend, though not as steep a decrease as the previous 5-year period. This is from a combination of the move toward Open Access Journals and revised IEEE policies on publications libraries. We have also observed a significant and recent reduction in overlength page sales: \$44k drop between 2023 and mean of 2019-2022. However, the growth in sales of periodical products by IEEE has partly offset these reductions. We have reduced publications expenses and taken other actions to attract more interest in our flagship Journals, including encouraging longer papers in T-UFFC that yield more citations, reduced publication time, and increased impact factor to balance the reducing revenue. Yet, the long term revenue from Publications remains uncertain and decreasing revenue must be factored into our planning.

The other trend involves the financial results of our three signature Conferences. The International Ultrasonics Symposium continues to grow, driven primarily by the Medical Ultrasound technical areas, and is now at a point that it derives considerable benefits from its size (2000+ attendees). It manages generally to meet or exceed the 20% surplus target. Since it is so large, the surpluses are on a relatively large income basis. The other two conferences are much smaller (300-400 attendees), and over the last few years have not always met a target 20% surplus. At the same time, since they are smaller, they contributed less overall.

Our membership statistics are remarkably stable over the past 20 years, irrespective of efforts to increase them.

Over the long term, we plan to work to expand our conference offerings, as this may become a more substantial portion of income.

h) List the Society products/offering that are included in membership:

Subscription to the Society journal (T-UFFC), online newsletter
Access to the online video repository, CATAVault.

i) Referring to the Society expense to reserves ratio for the last five years provided above, comment on how this affects society perspective on financial decision-making.

The Society has a very healthy expense to reserves ratio, typically 1:2 excluding pandemic years. However, we manage each yearly budget to have a small surplus, irrespective of the ratio. We have used the Special Initiative funding process, using the 50% and 3% funding rules to expand our offerings and improve the Society. In all but one year (2022) the initiatives spending was less than the Net Operations surplus. We did access the Reserves in 2022, to cover a \$87k deficit after spending on Special Initiatives. This coincided with a net negative Reserve allocation in 2022 due to poor global market performance. Having a strong reserve ratio does allow us relative freedom of action on new ideas and outreach. We also work to be fiscally prudent on a year-to-year basis.

j) Describe the budget projects or initiatives that the Society took on over the past five years. Explain how these were chosen and describe the actual or anticipated impact of these investments.

We have generally taken on initiatives that enhance our services to members, especially student and young professional members, and to increase the access to our conferences and activities for members across the world. Projects were solicited from AdCom and the wider membership and selected based on potential to impact the relevant scientific community and likelihood for the volunteers to complete the planned activities. In general, events run by our volunteers were highly successful in disseminating expertise held within the Society to the community, and in parallel, strengthen our membership network. Projects to develop tools to enable access to our conference content will have a long term impact by allowing access for many more people around the world to learn and share knowledge.

Highlights of initiatives and budget projects include:

COVID-19 Pandemic Related Projects: Due to the global pandemic all UFFC conferences were moved to a 100% virtual environment. These transitions for all 3 conferences in 2020 and in 2021 required new tools and virtual platforms to be acquired, built and implemented in a short timeframe. Special initiative funds were made available to make it possible to have very successful virtual conferences throughout this period of time. We gained valuable experience with using virtual tools that continue to assist us in our current conference planning as well as the future, so that we can offer, as standard, both in person and remote participation in our symposia.

Global Outreach Symposia (\$20-\$30k per event): We have invested in two new sponsored conferences to engage the community in underserved areas: the Latin America Ultrasound Symposium (LAUS), which ran fully virtually in 2021 and in person in 2024, and the South Asia Ultrasound Symposium (SAUS), which began in 2024. These initial meetings each attracted over 100 regional participants, the vast majority of whom would not be able to join our main conferences in person. These events have initiated We are now expanding support to additional locations and will provide financial support for two Global Outreach Symposia per year.

Access to conference content & CATAVault video repository (invested \$225k to date): We have invested significantly in online platforms to make our conferences and the presentations from the conferences accessible to everyone, whether attending a conference in person or remotely, or wanting to learn in the years after a conference. The Society support also includes transcription and translation of conference presentation videos, and developing a repository for presentation videos, CATAVault. These will enable people who cannot attend a conference in person to watch and listen to videos when they want to learn from the content. Additionally, we are now providing financial support to members from underserved areas to attend our flagship conferences in person, via the UFFC Scholars program, so that more scientists and engineers around the world can actively contribute to and learn from our technical content.

Schools & Education (\$60-\$120k per year): One important example of our projects is the Schools program that began in 2019, at first funding through the Special Initiatives program then incorporated into our operating budget. Schools for the 3 technical areas have been held regularly across the world. One School event was even held virtually during the COVID-19 pandemic, sending components for building and testing ultrasound transducers to participants around Canada & South America. Another Schools initiative supported the development of online training tools for Time and Frequency capacity building. These provide a unique opportunity for our members not only in terms of technical educational activities, but interaction with some of the luminaries in the field and mentorship kickstarts, and the expectation is that this will increase their retention. In 2024, the Outreach Educational Ambassador Initiative was launched. The aim of this initiative is to provide high-level education for low and middle income countries. Instead of inviting students to come to conferences, we want to reach out to them and teach them locally. Each class is 4-5 days long, and promotes increased impact and accessibility for the local community with minimal environmental impact.

Community (\$30-\$40k/year for committees, increasing): We have also expanded support for events for our junior members at conferences. For instance our Students committee and Young Professional committee members have organized "Power Pitch" events, industry networking sessions and social networking events, which help our members build their professional networks and practice professional skills. The Diversity and Equity committee and WIE committees have organized workshops that have

helped our membership understand how to navigate the professional contexts and to build supportive relationships within the community. We have also expanded our funding of website development as a way to improve our member experience. Various marketing campaigns for our conferences and workshops have been implemented and equipment purchased to enhance the virtual meeting environments.

k) Describe any activities, projects or initiatives for which the Society plans to use accessible reserves (3% of reserves) or spend its 50% spending rule fund over the next 3 - 5 years. (approximately 150 words)

As advised by IEEE TAB FinCom, the Finance committee will now incorporate special projects within a balanced budget, and not make use of 50% and 3% spending rules. Over the past several years, initiative and project spending by the Society could have been covered by the annual surplus. Reserves will be accessed if necessary to cover minor variances with budget now that IEEE TAB FinCom encourages planning for net-zero surplus. Projects such as those described above that show benefit for the community will be continued. New initiatives and projects will broadly focus on outreach, both enabling more people from around the world to participate in our activities, or to bring knowledge in the Society's field of interest to the global community. The Finance Committee will develop budgets incorporating these new initiatives, up to a deficit of 1% of the Society reserve balance, for review and approval by AdCom.

l) Are there ways the IEEE could help you with finances?

The VP Finance and the Finance Committee would appreciate as much clarity and transparency as possible with regard to IEEE costs, revenue distribution, sources of "Investment Expense", etc. The AdCom often asks questions regarding these budget items.

Improved forecasting of product net revenue, particularly for publications and proceedings will be helpful in being able to plan our annual budgets. We are supportive of the work already underway. Additional detail in budgeting and forecasting for cost centers will be helpful too, such as information about IEEE operations costs through the internal 7XXXXXX level accounts.

UFFCS President, Past-President and President-Elect have engaged at TAB level in discussions with respect to time and effort required to make payments to external suppliers.

As a result, the TAB-run IEEE-wide survey of Societies'/Councils' Presidents was conducted and indicated the following: delays in processing contracts and payments have negatively affected the operations of the Societies/Councils; IEEE templates for contracts and payments are sometimes too rigid for smaller and foreign vendors; the lack of operational flexibility affects the reputation of IEEE; and there are issues with IEEE's timeliness of communication regarding operational problems, such as payments to vendors.

12. Previous Review

NOTE: After the SCRC review, the committee prepares a list of recommendations to the Society with the expectations that these recommendations will be implemented by the Society as soon as possible. The sole intent of making these recommendations is to help the Society improve in a specific area. With this in mind, in this section we are asking the Society to provide a status update on the recommendations from the previous review.

List all recommendations your society received from the SCRC during the previous review and describe what actions your society took to implement them. If the Society has chosen not to implement the recommendations from the last SRC review, please indicate and explain the rationale for not doing so:

Recommendations	Actions taken by Society to implement the recommendation/Rational for not implementing the recommendation
<i>Enter recommendation here</i>	<i>Enter implementation here</i>
<p>Purpose, strategy and operations:</p> <ul style="list-style-type: none"> <i>The SCRC recommends that the Society consider adding specific metrics and dates when appropriate to enhance its Strategic Plan</i> <i>The SCRC recommends that the Society be proactive and reach out to CRFID and specifically ask how well its representatives are supporting the Council, and if the Council needs any additional skills or capabilities that the Society may be able to provide.</i> 	<ul style="list-style-type: none"> We appreciate the comment and will do so for the appropriate portions of the Strategic Plan. Many of the initiatives, especially those dealing with education, have metrics (e.g. attendance) We have attempted to be in regular communication with CRFID (with commonality of leadership), and will continue to do so.
<p>Conferences and technical meetings</p> <ul style="list-style-type: none"> <i>The SCRC recommends that the Society engage with its MCE representative to determine which MCE services can help increase the efficiency and effectiveness of its conference management</i> 	<ul style="list-style-type: none"> Respectfully, we have found that the combination of Conference Catalysts and a local PCO (where warranted) have adequately and cost-effectively met our needs. Conference Catalyst maintains regular contact with the designated MCE representative, Travis Chigi, which works very well.
<p>Education</p> <ul style="list-style-type: none"> <i>The SCRC recommends that the Society consider ILN as a platform for online educational offerings.</i> 	<ul style="list-style-type: none"> We have invested in and launched CATAVault as our on-line platform for education, videos, and conference presentations.
<p>Membership</p> <ul style="list-style-type: none"> <i>The SCRC recommends that the Society consider starting Best Chapter and/or Student Branch awards to recognize the active UFFC chapters.</i> 	<ul style="list-style-type: none"> We have focused on expanding our network of Chapters and Student branches worldwide (e.g. Seattle, Boston, France, Madras, China) and will consider these awards when we have a larger group to select from.
<p>Finance</p> <ul style="list-style-type: none"> <i>Please work with financial analyst to fill in the empty tables. Use these as basis for a more thorough analysis of recent financial trends.</i> <i>Please list recent initiative investments, indicate how much was invested in each, and describe outcome/impact if known; for more recent projects, indicate how impact will be assessed.</i> <i>Given the health and stability of finances, the SCRC recommends that the Society consider more aggressive pursuit of new initiatives to increase impact and return greater value to members</i> 	<ul style="list-style-type: none"> We have attempted to produce more thorough financial analyses using the data provided by IEEE, although there are still opacities which limit our ability to do so. Please see the Finance Section, but our investments have included our Schools (\$60-120k per year), Latin America and South Asia Ultrasound Symposia (\$58k biennially), all of which were very successful. We invested \$225k in CATAVault, which only recently launched, but already has over 6,800 entries. We appreciate this comment, and we have invested in our education/online programs as noted, and also spent ~\$400k on all outreach activities in 2023 in order to assess what approach would best support our members going forward.

13. Society Successes and Effective Practices Requiring

NOTE: The SCRC believes that many societies and councils have success stories and effective practices that can be shared among other societies and councils and we would like to hear directly from you the practices you believe could benefit others in IEEE. These effective practices will be shared with all society and council presidents and will also be uploaded to the SCRC website at <https://ta.ieee.org/operations/society-and-council-operations/society-and-council-effective-practices>.

- a) Describe any society policies, practices and procedures that were particularly effective in achieving the Society's goals. This is an opportunity for you to brag about the activities of your society.

Volunteers Engagement Committee: Established to increase the diversity and number of applicants for all positions and make the appointment process more transparent and less biased.

Double-blind Reviews for Ultrasonics Symposium: A policy introduced to remove regional bias in accepted papers at the Symposium.

CATAVault: A repository for webinars, university lectures, tutorials, conference presentations, and more. Created to improve the reach of the newest research and technologies in the field, educate, spread knowledge, and enhance inclusiveness.

Regional Conferences: Technical conferences for underserved regions, held successfully so far in Latin America and India. These have been funded by Special Initiatives and will be funded by the Society budget in the future.

Chair of the DEI: Elevated to a VP position in the AdCom.

WIE and DEI Events: Held at symposia across the three technical areas.

IEEE TAB Award: The Society's activities in WIE and DEI earned the IEEE TAB Award for S/C Impact in DEI in 2023.

Outreach Ambassador Initiative: Similar to the Distinguished Lecturer program but specifically designed for students and young professionals. It includes several days of lectures and is targeted at underserved countries (initial tours were in Uruguay and India).

Standardization procedure implemented for IUS TPC recruitment: Applicants who meet the qualification criteria are selected based on a weighted-random system that prioritizes recruitment of members from under-represented groups (e.g. gender, geographical region, industry) against pre-defined goals for % representation. A recruitment committee for each Group encourages applications, seeking a diverse pool of candidates.

- b) Describe any effective practices that might be beneficial to other societies or councils and explain the positive impact of these effective practices to your Society:

Effective practice	Impact
<p>All symposium presentations must have their videos uploaded to the CATAVault depository site before the conference begins. This requirement applies to both in-person and remote participants. The only exceptions are tutorials and plenary talks, which are recorded live and the videos are stored afterward.</p>	<p>Remote participants can watch all presentations, regardless of their timezone, and the presentations of remote participants are shown in regular sessions. There is no live broadcasting, which reduces technical problems and costs. Therefore, our conferences are not hybrid. This practice benefits participants who cannot attend in person due to family, financial, professional, visa, sustainability-related travel restrictions or other reasons, typically comprising 20-30% of attendees. Consequently, this approach fosters more diverse and inclusive participation. Additionally, those who must cancel their travel plans at the last moment can still have their pre-recorded videos shown.</p>
<p>All society positions are announced on the Society website, and applications are sought from members. The Volunteers Engagement Committee screens the candidates and proposes a shortlist to the President, who then nominates a candidate.</p>	<p>The lack of nominees is usually the bottleneck in achieving diverse and inclusive leadership and this practice provides a broader pool of candidates. Additionally, the process reduces the need for the President to search for candidates, which helps prevent the appointment of individuals from a narrow circle close to the President. Specifically, for a Society with three distinct sections, this process is more transparent and less biased. This practice helped improve diversity and inclusion across gender, regional, and technical categories.</p>
<p>Student Track at the Joint Symposium</p>	<p>A technical session fully run by students, including selection of papers, session chairs, and speakers, and under the supervision of senior conference organizers. This track is introduced to provide students with experience in organizing technical sessions.</p>
<p>Organizations benefit from seven free remote registrations for every three full registrations.</p>	<p>This practice is aimed at helping organizations (industry, government, academia) that cannot afford, for various reasons, to send more than three in-person participants to symposia.</p>