



IEEE Systems Council

Spring 2024 Officers Meeting
18 April 2024



IEEE Systems Council Spring 2024 Officer's Meeting President's Message

Walt Downing

18 April 2024



President's Welcome - Walt Downing

- ▶ Call to Order
- ▶ Approval of Agenda and Minutes
- ▶ Strategic Planning/Goals for 2024



Status of 2023 Focal Points

▶ Member and Participant Engagement

- New Member Societies (20 Member Societies)
 - Reliability Society ✓
 - EMC Society ✓
- Standing Committees, Technical Committees, and AdHoc Committees ✓
- New Initiatives
 - Online Distinguished Lectures ✓
 - Affinity Group Networking Events (WiSE, YP, LM, etc.) ✓
 - Other? ✓ (Sponsored HKN & LM conferences.)

▶ Communications

- Update website ✓
- Boardable (marginal utilization)
- Newsletter ✓
- Social Media ✓



2023 Focal Points Carried Over to 2024

- ▶ Strategic Planning (Schedules did not align for 2024.)
- ▶ Governing Documents Updates (No progress - carried over to 2024)
 - Constitution
 - Bylaws
 - Handbook of Policies and Procedures
- ▶ Succession planning and preparation for Fall 2024 elections.



IEEE in 2024

► Goals

- Student elevation to member grade and retention of young professionals (Get them to think of IEEE as their professional home.)
- Industry engagement (Task force on engaging students and YP's in industry. Provide opportunities for career and professional development.)
- Outreach to the broader public (Enhance public understanding of engineering and technology.)
- Investments in new products and services (Task force on IEEE's role in technical training and engineering education to support life-long learning.)

IEEE
140
1884-2024
YEARS





IEEE Systems Council

Division X Report to Officers

Stephanie White, IEEE Director, Division X
Spring 2024 Officers Meeting
18 April 2024

Agenda

- IEEE Directors, Division X, 2021 - 2026
- IEEE Division X Societies and Councils, 2024 Presidents
- Current Status & Activities
- Challenges
- Action Items



IEEE Division X Directors

- Dalma Novak, 2021-2022
- Stephanie White, 2023-2024
- Ravinder S. Dahiya, 2025-2026



IEEE Division X Societies & Councils, 2024 Presidents

- IEEE Computational Intelligence Society, Yaochu Jin
- IEEE Control Systems Society, Magnus Egerstedt
- IEEE Engineering in Medicine & Biology, Paul Sajda
- IEEE Photonics Society, Ping Shum
- IEEE Robotics and Automation Society, Aude Billard
- IEEE Systems, Man, and Cybernetics Society, Adrian Stoica
- IEEE Biometrics Council, Nasir Memon
- IEEE Sensors Council, Deepak Uttamchandani
- IEEE Systems Council, Walt Downing



Current Status & Achievements

▶ **Division X Fellows Process**

- ▶ Discussed changes in IEEE Fellows nomination process with Division X S/C
- ▶ Took issues back to Fellows Process committee
- ▶ Invited Isabel Trancoso to Division X dinner to explain Cohort Process
- ▶ Asked Dalma Novak to be Chair of Division X Fellows Cohort Committee, and she graciously accepted

▶ **Other Activities**

- ▶ Held Division X dinners with discussion topics during IEEE Meetings Week (Three a year)
- ▶ Virtual Meetings



Current Status & Achievements, p. 2

- Division X Societies/Councils identified an interest in hiring a technical PR firm to publicize outstanding research results
- Initial interest came from Photonics
- EMBS and CIS already had experience with PR firms
- IEEE marketing director, Karen Hawkins, wrote & distributed a request for quote
- Cactus, a professional technical PR firm responded
- Demonstration held virtually



Challenges

- ▶ Society & Council Presidents change every 2 years, and interests differ
- ▶ Significant work & responsibility
 - Directors are expected to be active participants in IEEE Committees, for example:
 - Chair of TAB Conflict Resolution Committee
 - Member of Audit, Employee Benefits & Compensation (EBCC), and currently, Nominations and Appointments (N&A) Committee
- ▶ Significant reading required to be a knowledgeable participant and voter

Action Items

- ▶ Get feedback from Division Presidents on general Society / Council issues and needs
- ▶ Hold Division X meeting to determine path forward with Cactus
- ▶ Recruit nominations for N&A
 - Nominations extended for PSC Chair
 - Many committee positions
 - New video on volunteering, positions, schedule, and the nomination process



**Questions? Comments?
Suggestions?**





IEEE Systems Council Member Services Report

Stephanie White, VP Member Services

Spring 2024 Officers Meeting

18 April 2024

Agenda

- Member Services Committees & Committee Chairs
- Current Status & Achievements
- Challenges
- Action Items



Chairs, Systems Council Member Services Committees

- Chapters Committee, Ramki Raman
- Cooperation Committee, IEEE Entities, Rajiv Joshi and Alireza Safaee
- Cooperation Committee, Non-IEEE Entities, Wei-Jen Lee
- Diversity, Equity, Inclusion, and Belonging, Bozenna Pasik-Duncan
- Early Career Speakers Program (ECSP), Sambit Bakshi
- Distinguished Lecturer Committee, Pierangela Samarati
- Industry Committee, Stamatis Karnouskos
- Life Members Committee & Senior Member Elevation Committee, Walt Downing
- Women in Systems Engineering (WISE), Holly Handley
- Young Professionals and Student Membership Committee, Chamika Sudusinghe



Chairs, Systems Council Member Services, p. 2

- Cooperation with IEEE Entities
 - Member Societies, Rajiv Joshi and Alireza Safaee
 - Participants
 - Other IEEE Efforts
- Cooperation with Non-IEEE Entities
 - Systems Societies, Haifeng Zhu
 - Research Centers, Wei-Jen Lee
 - Government, Armando Walter Colombo
 - Universities, Prasanta Ghosh



Current Status & Achievements

- ▶ Most Committee & Subcommittee positions are filled; two Subcommittee Chair positions are vacant – We are looking for volunteers
 - Cooperation with Practitioners
 - Cooperation with Other IEEE Entities, e.g. Standards, Future Directions
- ▶ Two new Committees: Early Career Speakers Program (Sambit Bakshi) and YP & Student Membership Committee (Chamika Sudusinghe)
 - Young Professionals were formerly not a committee; supported by a single person
- ▶ New Chapters Chair, Ramki Raman. The Chapter Chair recruits, reviews and advises all Chapters (Regular, Joint, & Student)



Current Status & Achievements, p. 2

- DL Committee Chair and Members: Pierangela Samarati (Chair), Bob Rassa, Paolo Carbone, Rich Hochberg, Stephanie White
 - Selected 8 new DLs from over 46 applicants; approved by AdCom
 - DL Committee is reviewing the required nomination data to improve selection
- Senior Members Committee (Walt Downing, Chair) is recruiting and helping eligible IEEE Members to become Senior Members
- SysC is one of a few or the only S/C with a Life Members Committee (Walt Downing, Chair)



Current Status & Achievements, p. 3

- Organized Systems Council Undergraduate Conference at SysCon 2024. Announced as hybrid but conducted virtually
 - Program Committee: Prasanta Ghosh (Technical Chair), Bozenna Pasik-Duncan, Stephanie White; 26 papers accepted, 21 papers to be presented
 - Logistics: Bob Rassa (Planning & Arrangements), Fabrice Labeau (McGill Site), Brianna Orr, Conference Catalyst, (Conference announcements, EDAS setup and use, and all direct communication with student speakers)



INCOSE and BKCASE, Activity & Status

- International Council on Systems Engineering (INCOSE)
 - IEEE SysC MOU with INCOSE under discussion (SMC has MOU with INCOSE)
 - INCOSE participates in SysC TC on Systems Engineering Methods (Bill Miller, Chris Hoffman)
 - SysC participates in INCOSE Systems & Software Interface WG, (Stephanie White)
 - Systems Council was a Reviewer of INCOSE “*Systems Engineering Vision 2035*”
 - *INCOSE previously ran a track at SysCon and offered Systems Engineering Certification Exams*
- BKCASE and the Systems Engineering Body of Knowledge (SEBoK)
 - Systems Council is a BKCASE steward, contributes \$25K annually for support, has 2 board representatives
 - Art Pyster, BKCASE Director will address AdCom; he is interested in expanding the number of SEBoK users
 - SEBoK is conducting its quarterly Governing Board Meeting at SysCon 2024



Challenges for Member Services

- ▶ Adding to joint activities with Member Societies
- ▶ Recruiting additional volunteers
- ▶ A few areas where Member Services could do better
 - Joint DLs/use of DLs (Rajiv Joshi will discuss this)
 - Adding to Joint Chapters
 - Better support for industry and industry professionals
 - Improved interaction with YPs and Students - The ECSP is a big step forward

Action Items

- ▶ DLs
 - Revise nomination requirements
- ▶ Chapters
 - Conduct Chapters Congress (Consider some funding)
 - Remind Regular and Student Chapters of Chapter Award requirements, and to apply
- ▶ WISE
 - Recruit new WISE Chair
- ▶ Cooperation with Non-IEEE Societies
 - Participate in creating MOU with INCOSE
- ▶ Systems Council Undergraduate Conference, 2025
 - Initiate planning, Consider a few scholarships for in-person attendance
- ▶ Early Career Speakers Program - Recruit speakers



**Questions? Comments?
Suggestions?**





IEEE Systems Council VP Conferences

Paolo Carbone

IEEE Systems Council [Officer/AdCom] Meeting

April 2024

Montreal

Main Activities

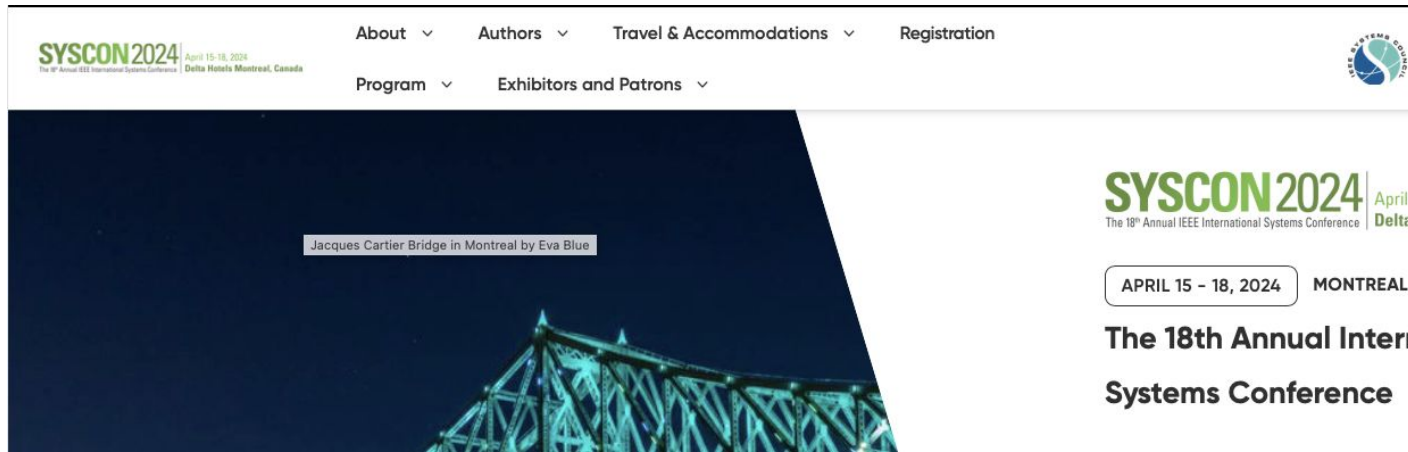
- ▶ Status of Conferences
- ▶ Strategic Plan objectives
- ▶ Council conference performance



Conference status



SYSCON 2024



Outcome improvement w/r to 2023

Most frequently cited papers in 2023

- Understanding the Current State of US Defense Systems of Systems and the Implications for Systems Engineering
- Performance Study of the Robot Operating System 2 with QoS and Cyber Security Settings
- Perspectives on measuring enterprise resilience
- Experimentable digital twins for model-based systems engineering and simulation-based development
- Managing Pandemic Resilience with Other Cascading Disruptions of a Socio-Technical System

| | 2023 | 2024 |
|-------------------|---|------------------------|
| Total Registrants | 135 | 191 |
| Life Member | 3 | 7 |
| Student Member | 11 | 19 |
| Student | | |
| Non-Member | 7 | 19 |
| INCOSE | | 9 |
| IEEE Member | 62 | 67 |
| Non-Member | 52 | 70 |
| Tutorials | 15 | 22 |
| Papers | | |
| Submitted | 165 | 224 |
| Accepted | 96 | 140 |
| Rejected | 41 | 60 |
| Withdrawn | 28 | 24 |
| Patrons | 2 Exhibitors, 1 Attendee Literature, 1 Program Ad (\$4,250 Total) | 2 Gold (\$6,000 Total) |

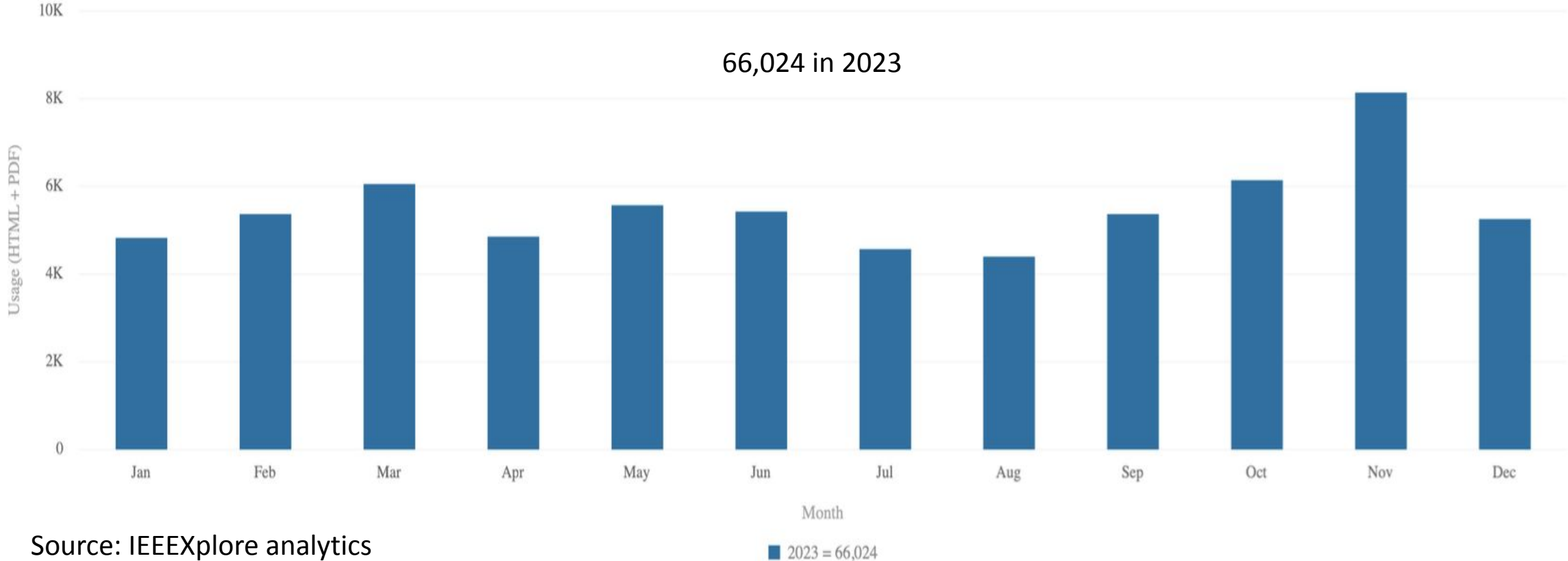


SYSCON publication usage - ieeexplore data



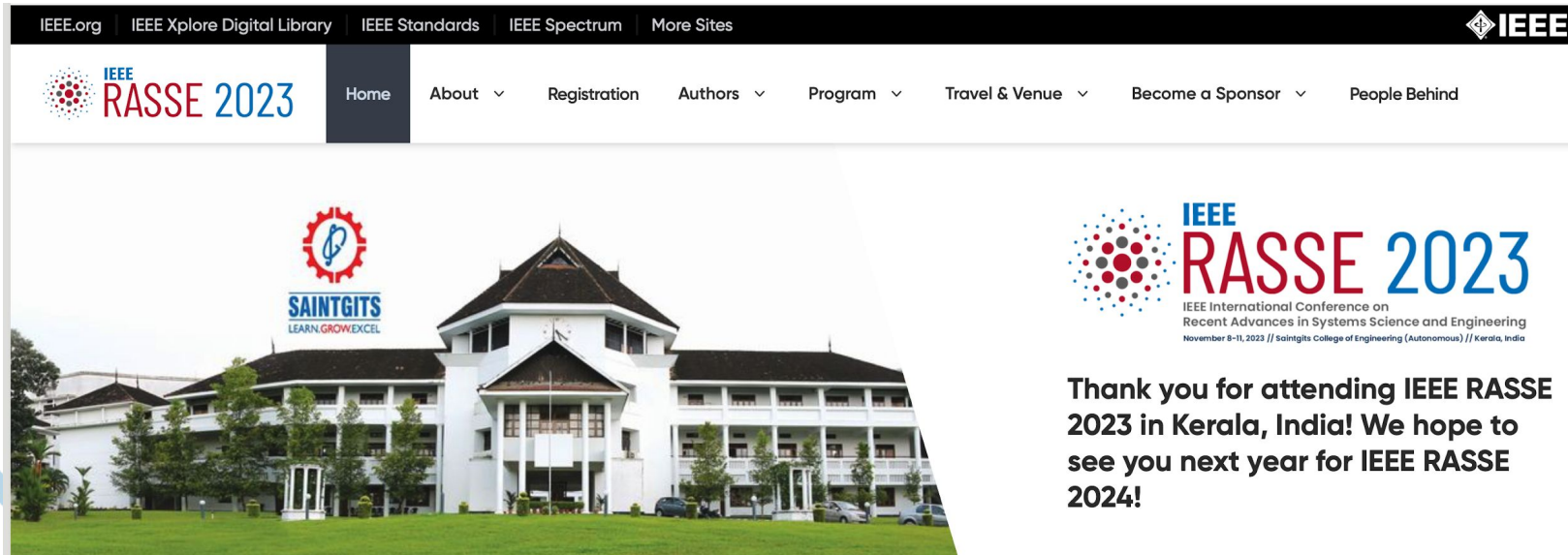
Year 2023

66,024 in 2023



Source: IEEEExplore analytics

RASSE 2023



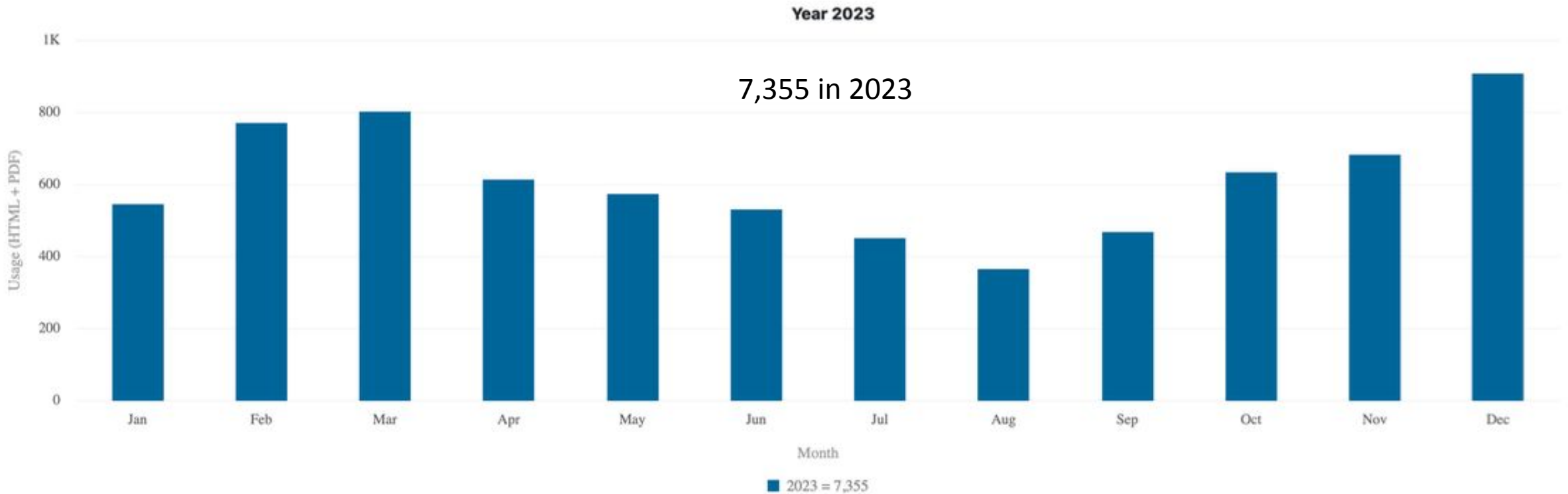
RASSE 2024 in Singapore

Most frequently cited papers in 2023

- Overview of Hierarchical Control of AC and DC Microgrid
- A Survey of Natural Language Processing Implementation for Data Query Systems
- Algorithmic Trading and Short-term Forecast for Financial Time Series with Machine Learning Models; State of the Art and Perspectives
- Continuous Angle Prediction of Lower Limb Knee Joint Based on sEMG
- An Indian Currency Recognition Model for Assisting Visually Impaired Individuals

| | 2023 |
|------------------------|------|
| Total Registrants | 120 |
| Life Member | 0 |
| Student Member | 9 |
| Student Non-Member | 20 |
| IEEE Member Non-Member | 15 |
| Tutorials | 38 |
| Complimentary | 0 |
| | 38 |
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| | |
| Papers Submitted | 281 |
| Accepted | 83 |
| Rejected | 66 |
| Withdrawn | 132 |
| | |
| Patrons | 0 |

RASSE publication usage



Source: IEEEExplore analytics

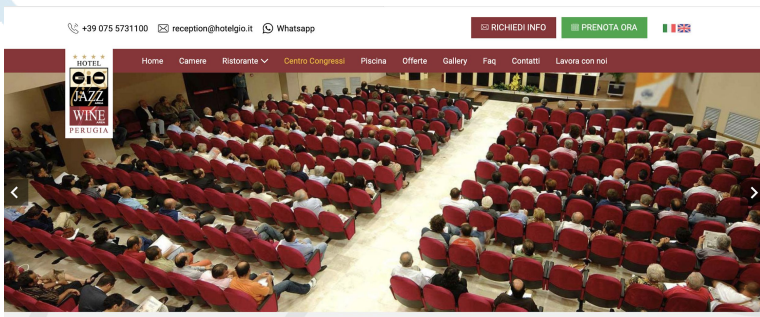


OCTOBER 16-18, 2024 PERUGIA, ITALY

2024 IEEE International Symposium on Systems Engineering

Important Dates

- JUNE 3, 2024**
Special Session Proposals Deadline
- JULY 1, 2024**
Abstract Submissions Deadline (Industry Papers)
- JULY 1, 2024**
Manuscript Deadline (Academic/Research Papers)



Most frequently cited papers in 2023

- Choice of effective messaging protocols for IoT systems: MQTT, CoAP, AMQP and HTTP
- From simulation to experimentable digital twins: Simulation-based development and operation of complex technical systems
- uPort Open-Source Identity Management System: An Assessment of Self-Sovereign Identity and User-Centric Data Platform Built on Blockchain
- LPWAN Technologies for IoT Systems: Choice Between Ultra Narrow Band and Spread Spectrum
- Comparing Attack Models for IT Systems: Lockheed Martin's Cyber Kill Chain, MITRE ATT&CK Framework and Diamond Model

<https://2024.ieeeisse.org>



Cooperation from member societies

- Collaboration in the organization of special sessions at the Council conferences
- Advertisement of conferences within the member societies
- Proposal of special section in some of the Council journals



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IEEE OJSE Special Issue

Authors of papers that address the systems engineering process are encouraged to submit extended versions of their papers to IEEE Open Journal of Systems Engineering. To be eligible for an extension and for submission to OJSE, these papers must first be presented at the symposium.

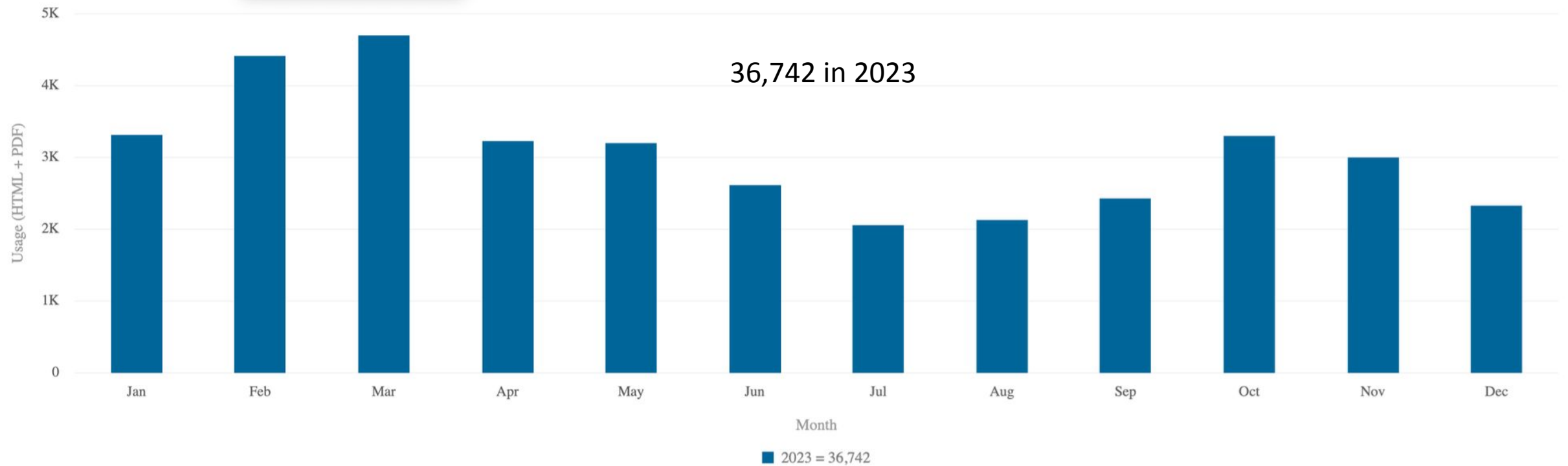
[More Info](#) >



ISSE publication usage

ISSE 2023 by-yearly.pdf

Year 2023



Source: IEEEExplore analytics



Strategic plan objectives



Objectives from Strategic Plan - Conferences

Mission: The mission of Systems Council Conferences is as follows:

- Enable the conduct of high-quality conferences, symposia and workshops.
- Produce high-quality technical content to serve members of the Systems Council's Member Societies and our technical community.
- Facilitate the generation of reasonable surplus while maintaining high overall quality.
- Refine and promote best practices in planning and managing Systems Council conferences.
- Explore new conference-delivery mechanisms.

Objectives from Strategic Plan - Conferences

Short-Term Actions:

- Review all conference budgets for opportunities to reduce expenses.
- Strengthen the Systems Council Conference involvement of Member Societies of the Council, encouraging new Systems Council AdCom members to participate in conference committees within their areas of interest.
- Encourage all TC chairs to work with their TC members to develop special sessions (with papers) for our flagship conferences.
- Create, publish and maintain a conference-operations guidebook as a supplement to the IEEE Conference Organizer's Manual, and ensure that our conferences follow the IEEE guidelines and the Systems Council's conference guidebook by making them available to all organizers of Systems Council conferences.



Objectives from Strategic Plan - Conferences

Three-Year Goals:

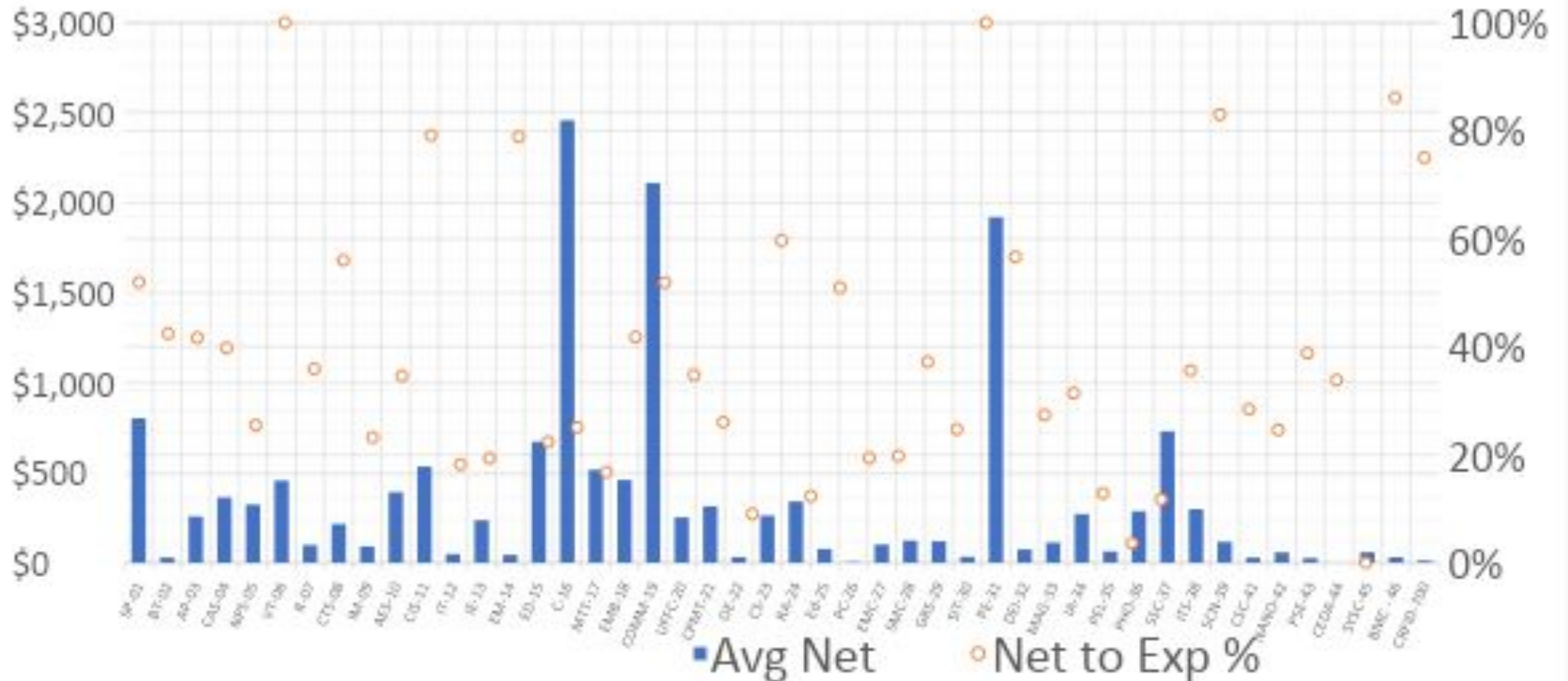
- Seek additional cooperative conference-engagement opportunities with Member Society conferences; examples of such opportunities include sponsoring a track or tutorial, or even a full conference.
- Increase technical co-sponsorships where there is a mutual benefit to the Systems Council and the other sponsoring entities, either IEEE or non-IEEE.
- Increase the conference surplus returned to the Systems Council by having the organizers of each conference work with, and be monitored by, the Systems Council Conference Committee with regard to costs and expenses.
- Ensure that all conference chairs follow the Systems Council's conference guidelines.
- Ascertain that all Systems Council conferences are of the highest technical quality and standards.
- Seek new tutorial topics and authors to provide greater technical content to attendees and increase tutorial attendance. Approaching existing DLs to provide new tutorials should be considered.



Council's conference performance



3 Year Average Net S/C Conference Performance



Source TA website: conference portfolio reports

Society Conference Portfolio Health Check

This dashboard provides views of your Society Conference Portfolio compared to the IEEE Benchmark and the Average IEEE Society/Council

Averages reflect the last two full calendar years

| | Average IEEE S/C | Society Specific |
|----------------------------------|------------------|------------------|
| # of PDFs Published | 8,469 | 1,747 |
| # of Events | 76 | 20 |
| # of Articles Viewed (Downloads) | 1,666,555 | 161,740 |
| PDFs / Conference | 112 | 87 |
| Downloads / PDF | 197 | 93 |
| Avg. Ou Pkg Net | 1.49% | 0.21% |

* The date filters above do not apply to the "Technical Program" chart. Nor do they apply to the "Xplore Data" and "IP Revenue Data" data tabs, which populate that chart.

* The data for the "Technical Program" chart is derived from the "Xplore Data" and "IP Revenue Data" tabs above, in addition to Business Unit specific data derived from ICX.

| | |
|-----------------------------------|----------|
| Avg. Annual Event Surplus (\$000) | \$337.03 |
| % of Events - Net/Expense > 20% | 46.99% |

| | | |
|-------------------|-------|-------|
| PDFs / Conference | 112 | 87 |
| Downloads / PDF | 197 | 93 |
| Avg. Ou Pkg Net | 1.49% | 0.21% |

* The date filters above do not apply to the "Technical Program" chart. Nor do they apply to the "Xplore Data" and "IP Revenue Data" data tabs, which populate that chart.

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Source TA website: conference portfolio reports

Xplore Conference Revenue Distribution

The number of downloads – ‘usage’ is responsible for 65% of the distribution, while the amount of content added is responsible for 35% of the distribution

The number of conferences sponsored and published by IEEE rose from just over 600 in 2006 to just under 1200 in 2011. While revenues have also grown, this means that a society may increase its content but still see its Xplore revenue decline because its proportion of content and usage has declined. The best strategy to maximise Xplore revenues is to publish interesting, high quality papers which are cited and downloaded for many years, as the usage component counts content irrespective of when it was produced, while content is only counted in the calculation for three years.

Thank you!





IEEE Systems Council Technical Operations

Andre Oboler

Spring 2024 Officers Meeting

18 April 2024



IEEE Systems Council Finance

Shreekanth Mandayam

Spring 2024 Officers Meeting

18 April 2024

Coffee Break

▶ 10:00 - 10:15 AM



IEC Recommendations: Focus on practitioners

Eugene Chang & Marc Peron

2

IEEE IEC

*Gaps & Opportunities for conferences and beyond
2024*

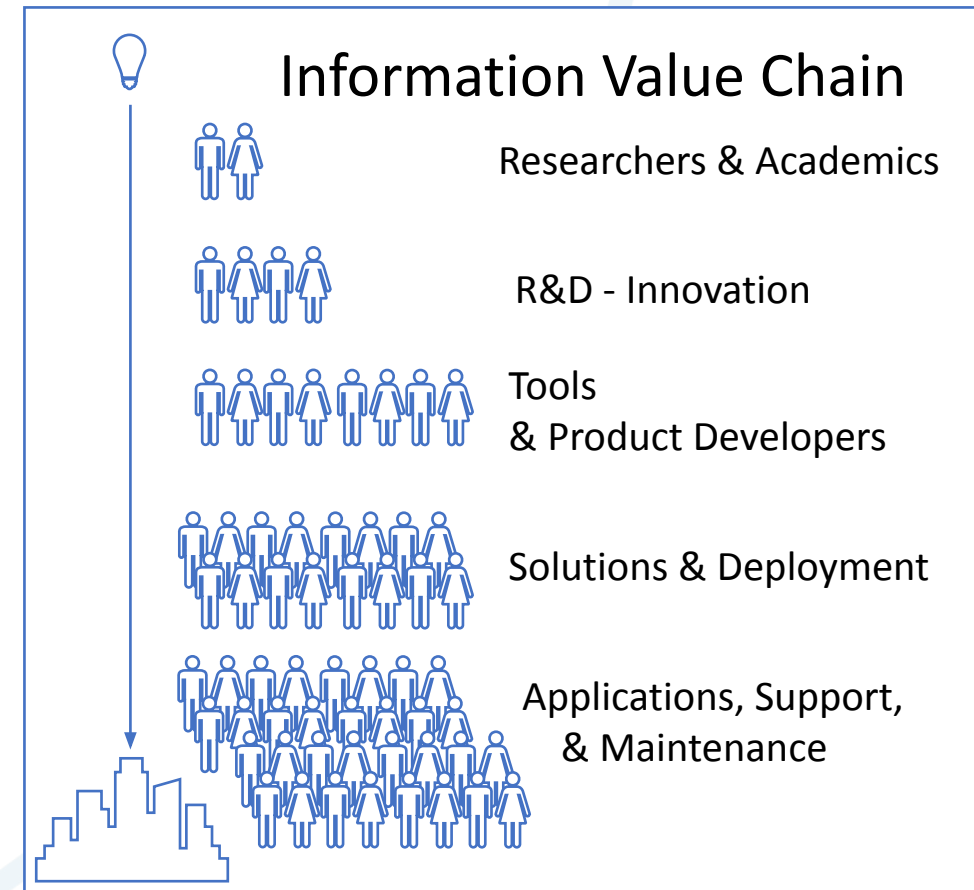
Grow Industry Engagement Through Practitioners

- Practitioners are essential in fulfilling IEEE's mission of delivering technology to society
 - Apply technology to create new solutions
 - Create changes, improvements, new benefits
 - Maintain effectiveness of technology and solution

IEEE Mission & Vision

- **Mission Statement**
IEEE's core purpose is to foster technological innovation and excellence for the benefit of humanity.
- **Vision Statement**
IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions.
- New ideas cannot deliver social impact without a chain of engineers turning abstract ideas into solutions addressing real social (and economic) needs.

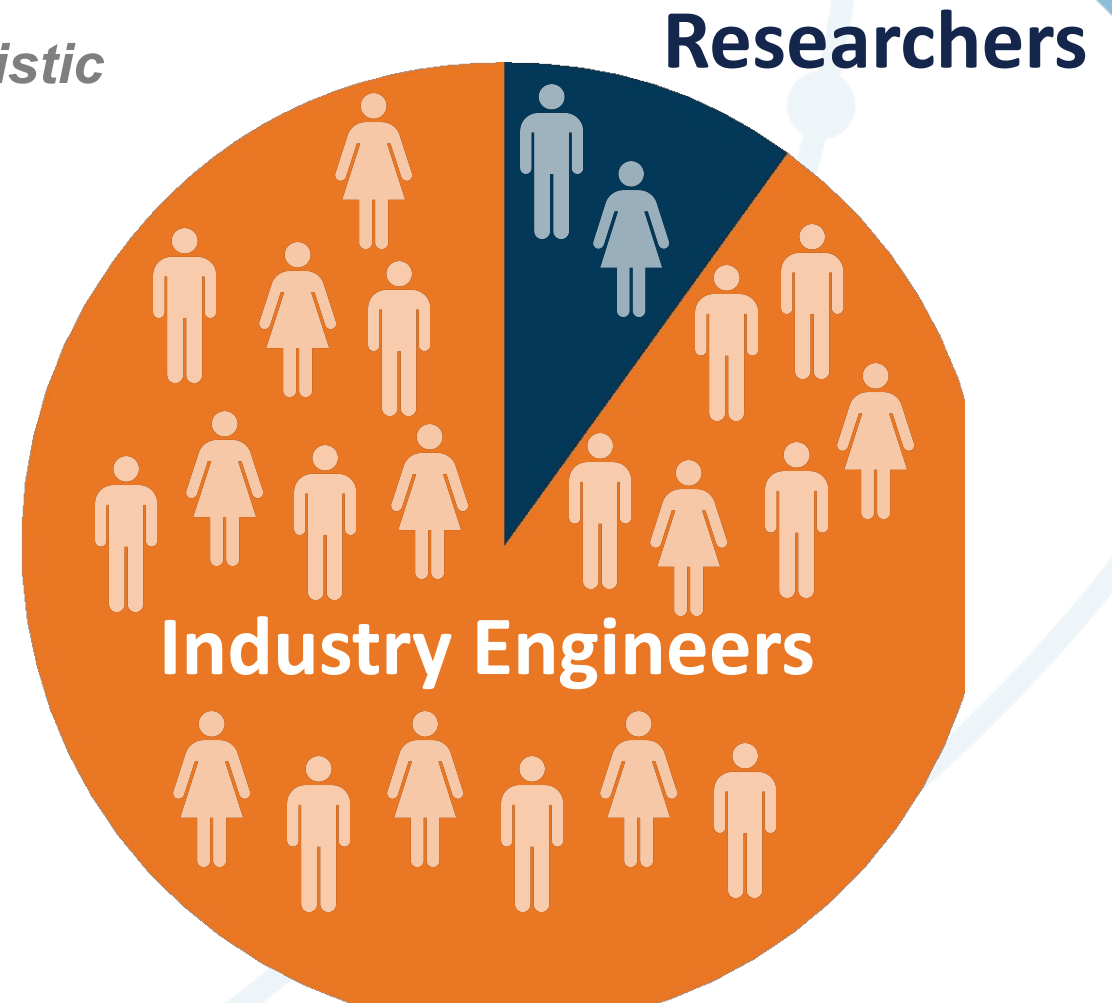
A wide variety of engineers form the information value chain for realizing ideas and delivering benefits to humanity.



Think Globally, Act Locally

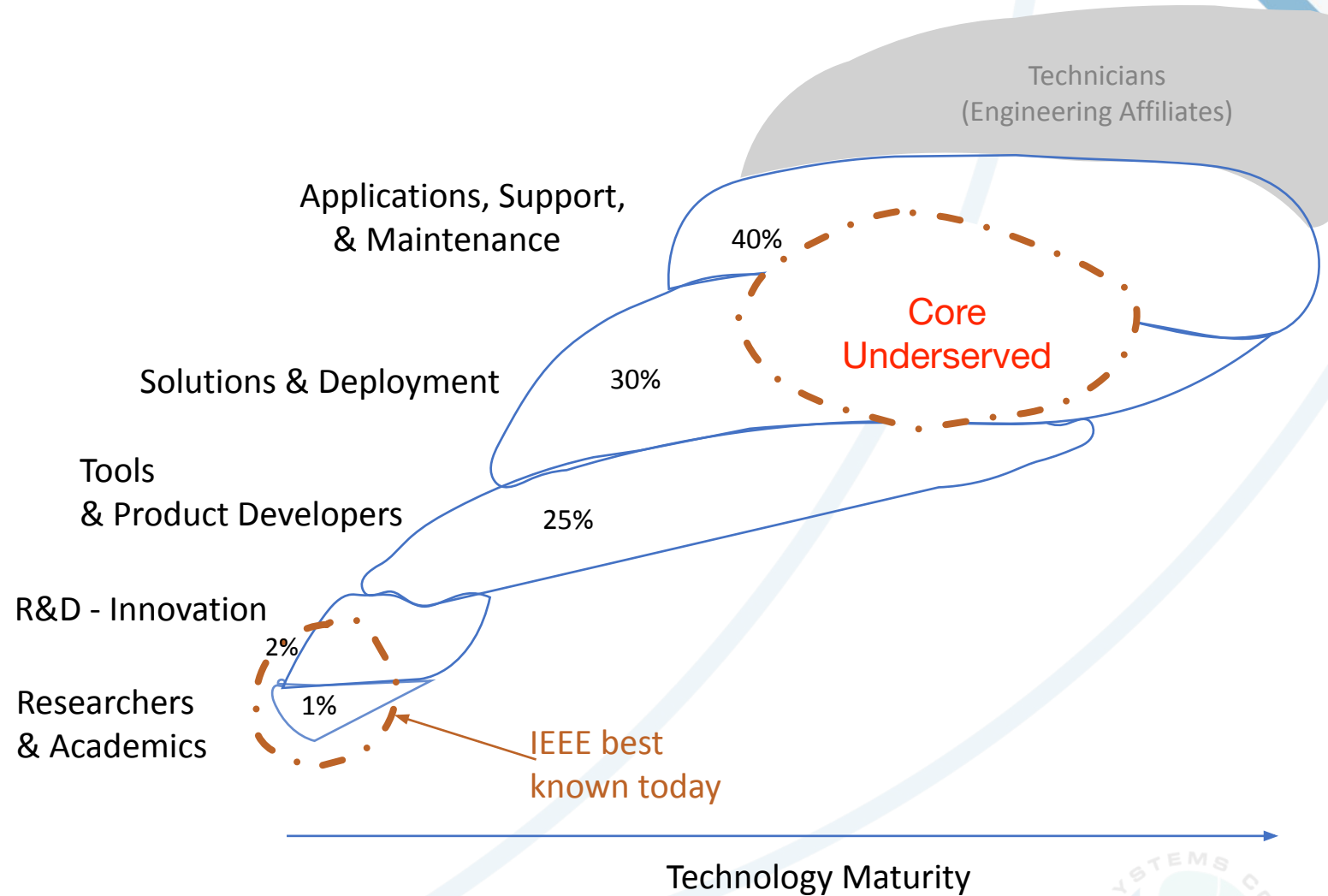
Real Industry Engagement Requires Opportunistic Thinking

- It represents a tremendous opportunity for IEEE given number of industry engineers are 10x (at least) the number of researchers!
- It is not just an add-on to academic or research activities



Focus on Engineering Practitioners

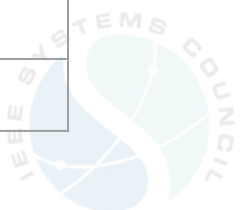
- Incremental expansion of our core activities doesn't reach the underserved fast enough.
- Directly address the core underserved.
- Practitioners need a different messaging from researchers.



Member Demographics

Request to conferences

| Demographics, % | | | | | | |
|--|----------|-------------------|----------------|----------------------------|------------------------|--------------------------------------|
| Society/OU | Academia | Industry Research | R&D-Innovation | Tools & Product Developers | Solutions & Deployment | Applications, Support, & Maintenance |
| Public Safety Conference - target | 10 | 10 | 20 | 40 | 15 | 5 |
| Public Safety Conference - organizers | | | | | | |
| HTX Public Safety Workshop - target | 10 | 10 | 10 | | 30 | 40 |
| HTX Public Safety Workshop -organizers | | | 12 | 72 | | 16 |
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SMEs In USA



6.1 million *employer* firms

> 500 employees (Large): 0.3%

< **500 employees (SME): 99.7%**

< **100 employees (Small): 98.1%**

< 10 employees (Micro): 78.4%

+ 26.5 million *non-employer* firms

U.S. Census Bureau, 2018 data

SMEs In Canada



1.2 million *employer* firms

> 500 employees (Large): 0.2%

< **500 employees (SME): 99.8%**

< **100 employees (Small): 97.9%**

< 10 employees (Micro): 78.4%

+ 2.9 million *non-employer* firms

SMEs employment: 88.5% of workers

SME contribution to GDP: 55.3%

Stats Canada, 2018 data

Delivery - information packaging

- Practitioners want information that can be applied (used in their work). The horizon for new technology is more immediate.
 - Staff — building solutions — 0-12 months
 - Line managers — planning next project — 9-18 months
 - Middle managers — setting technical direction — 12-24 months
 - Senior managers — setting business direction — 24-48 months
- How can new technology/new techniques be added to current solutions?
 - Technology must be available within the planning timelines
 - Tools must exist for evaluation and prototyping
- Career growth and advancement requires selecting new technology at affordable cost and affordable risk.

Delivery - events

- Must be affordable
 - Expenses are likely to be self-funded
 - Could be reimbursed by an employer
- Three day events, Friday evening through Sunday noon
 - Events within driving distance, 3 hours drive, <200 miles
 - Two night moderate hotel cost
- Scaling requires events to be regional and repeatable
 - Practitioners represent a wide variety of solutions
 - Topics need to be selected to the prevailing practices of each location

Reaching the Practitioners

- Expand beyond large engineering companies and universities
- Reach the leaders
 - Team leads, line managers
 - Make the relevant content worthy of reimbursement
- Smaller employers will respond to improving practitioner's effectiveness
 - Effectiveness = better career recognition and advancement

How can KEY OU's (Societies and Regions) reach Practitioners?

OU: Regions/Sections : Focus on Regional Market Segmentation

1. Each Region/Sections has its own economic reality. The “**market segmentation**” is typically already well done by Government Agencies in charge of economic development/exportations. Try to identify TOP 3. E.g. Region 7 (Canada) : Oil and Gas (West), Automobile (Ontario) and Aerospace (Québec).

Those vertical markets can easily connect with many tech inside IEEE: sensors, actuators, communications, robotics, etc. So: Sensors for Oil and Gas, Sensors for Automobile, etc.

1. **Each of those market have an “eco-system”** in place connecting Industry with Innovation. It is important to identify the players of that eco-system and have IEEE to add value to that existing ecosystem with its unique products (networking, conference, publications, standards and education). A strategy should be developed to target the TOP3 only (Region/Section focus).

1. Each eco-system has **large companies and SMEs (>90%)**. It is important to have a strategy that’s “inclusive” and adds value to both types of organizations.

Note: **One KEY need in Industry now is new engineers to hire.** Region/Section Student Branch can be seen as something very attractive by Industry to collaborate with IEEE.

OU: Societies (2/4): Quick wins ideas for Societies

| IEEE Society Product | Quick Win |
|----------------------|--|
| Publications | Have <u>Open</u> Journal to automatically accept articles from Industry on topics that are not research like product development, product manufacturing and product applications. |
| Conferences | <ul style="list-style-type: none">● Invite Regional companies to attend the Societies conference for free or near \$0.● Always include a Session where regional companies can discuss about their challenges. |
| Chapters | Alignment with Regional priorities (see OU: Region/Section) on: <ul style="list-style-type: none">- Standards (work with leaders to participate)- Education (have companies Educate of their topic of Speciality) |

OU: Societies (4/4): Governance is important

Important note on Governance:

An IEEE Society led by academics will never be able to operate this type of change to Industry.

Having a VP-Industry is already a positive signal of the seriousness of the Society's Commitment to go ahead regarding Industry Engagement, but it might not be enough.

So probably the best next steps would be:

- To build an "IEEE Industry Engagement Committee Program" for IEEE Societies that would: (1) avoid them to reinvent the wheel, (2) to avoid time and difficult existential questions and (3) some basic IEEE support that help to build momentum to have more Industry in IEEE Societies.
- To start targeting IEEE Societies that already have a VP-Industry in place with this program

Challenges

- New conference/events mindset
 - Geographic clusters of members
 - Bringing event to the members
 - Organizing/delivering a series of events
 - Vendors have “regional” trade shows to meet this challenge
 - Developing mix and match session modules
- Phase 1
 - Develop relevant technical talks - test market as individual technical meetings
 - Success Measures:
 - increased attendance by practitioners
 - Begin growing membership among practitioners
- Phase 2
 - Organize weekend events
 - Success Measures:
 - Number of attendees
 - Number of attendees driving 2+ hours to the event

Hypothetical weekend event

- ▶ Friday afternoon/evening
 - ▶ Non-technical talk, local engineering business and jobs
 - ▶ Dinner, social networking
- ▶ Saturday
 - ▶ Four sessions slots x dual track = 8 sessions
 - ▶ Mix
 - ▶ Technical talks matched to local society membership
 - ▶ e.g. software engineering, business apps, cybersecurity, internet, AI, big data, open source opportunities, regulatory, governance, new standards
 - ▶ Business skills (aka softskills)
 - ▶ Leadership development
 - ▶ Dinner — leadership recognition
- ▶ Sunday
 - ▶ Brunch and networking
 - ▶ Recognizing local employers

One Practitioner's Unmet Needs

A product manager's view

- I follow research because I need to create next generation products, or incremental improvements
 - It is too hard to find useful information from IEEE publications.
 - There are too many publications and too many subscriptions
 - Useful technology spans multiple publications
- I was lucky to have alumni access to the MIT ENgineering Library.
 - Sadly not from Honolulu.
 - Most practitioners do not have university privileges.
- I create (proprietary) content for practitioners – this is also an IEEE role
 - They need to know how to properly deploy (my) new technology
 - It was in my interest to teach them deployment problems of my competitors
 - IEEE content would be more universal and vendor neutral!
- I need(ed) to know how to evaluate alternative technologies/solutions
 - Model and predict behavior
 - Analyze and reverse engineer alternatives
 - Understand performance limits and trade-offs
 - Understand opportunities to improve performance

A lot of practitioners are in a rut until they need to fix a surprise.

We need to teach (or remind) practitioners that their engineering education is still valuable in the real-world..

(Any difference between theory and from practice is only an urban legend ... or bad modeling.)

Thank you!



IEEE Systems Council Secretary

Katie Wilson

Spring 2024 Officers Meeting

18 April 2024



IEEE Systems Council President-Elect

Andy Chen

Spring 2024 Officers Meeting

18 April 2024

Old/New Business - Walt Downing

- ▶ Sponsorship & Initiative Requests
 - HKN Conference (Nancy Ostin)
- ▶ Succession Planning



Adjournment/Lunch

▶ 12:00 PM

