# **IEEE Solid-State Circuits Society Administrative Committee Meeting Minutes**

# Sunday, February 19, 2023

San Francisco, California, USA Marriot Marquis and Virtual via Webex

#### **ATTENDEES**

### **VOTING MEMBERS PRESENT:**

John Long Alicia Klinefelter Bill Bowhill Chris Mangelsdorf Brian Floyd Makoto Takamiya Terri Fiez Carlos Tokunaga Zeynep Toprak Deniz Kenneth O Ichiro Fujimori Daniel Friedman Ali Sheikholeslami Rikky Muller Kazuko Nishimura Alessandro Piovaccari

Hoi-Jun Yoo Shanthi Pavan Danielle Griffith Amara Amara Yusuke Oike Woogeun Rhee Farhana Sheikh **Bram Nauta** 

# **VOTING MEMBERS ABSENT:**

Esther Rodriguez-Villegas Frank O'Mahony

Chulwoo Kim

# **NON-VOTING MEMBERS PRESENT:**

John Corcoran Payam Heydari Jan Van Waleed Khalil Kaushik Sengupta Sanu Matthew **Boris Murmann** Rakesh Kumar Alvin Loke Dick Jaeger Leo Belostocki Antonio Liscindi Zeynep Lulec Emre Ayranci

Andreia Cathelin Korkut Kaan Tokgoz

**Trudy Stetzer** Kathy Wilcox

# **NON-VOTING MEMBERS ABSENT:**

Steve Kosonocky Bruce Hecht Makato Ikeda Vivek De

Pieter Harpe Eugenio Cantatore
Filip Tavernier Romaine Dumant
Dennis Sylvester Rubia Yazicigil Kirby
Bill Bidermann Bryan Ackland
Dan Mcgrath Michael Mulligan
Joao Goes Milan Zhang

**GUESTS:** 

**STAFF:** 

Adam Greenberg Ashley Seda

Danielle Marinese Aeisha VanBuskirk

#### **SUMMARY OF MOTIONS**

**MOTION 1:** To approve the <u>Meeting Agenda</u>. The motion was made by John Long with a second by Dan Friedman. **The motion passed.** 

**MOTION 2**: To approve the <u>meeting minutes of the previous AdCom Meeting</u> held. The motion was made by John Long with a second by Ali Sheikholeslami. **The motion passed.** 

**MOTION 3:** Redistribute previously approved donations to the SSCS Meindl and Education and Future Talent funds, so that the former receives \$50,000 and the latter receives \$200,000. The <u>motion</u> was made by Terri Fiez with a second by Bram Nauta. **The motion passed.** 

**MOTION 4:** Advance \$600k to support ISSCC 2024. Motion passed unanimously at the Conferences Committee meeting on Feb 9, 2023. No objections. **Motion passed**.

**MOTION 5:** Advance \$60k to support CICC 2024. Motion passed unanimously at the Conferences Committee meeting on Feb 9, 2023. No objections. **Motion passed**.

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**MOTION 9**. Approve 4000 pages for *IEEE Journal of Solid-State Circuits* in 2024. The motion was made by Shanthi Pavan with a second by Bill Bowhill. **The motion passed**.

**MOTION 10**. Approve 320 pages for *IEEE Solid-State Circuit Letters* in 2024. The motion was made by Shanthi Pavan with a second by Bill Bowhill. **The motion passed**.

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**MOTION 13**. Approve 250 pages for *IEEE Journal on Exploratory Solid-State Computational Devices and Circuits* in 2024. The motion was made by Shanthi Pavan with a second by Bill Bowhill. **The motion passed**.

**MOTION 14**. Join the IEEE Blockchain Technical Community as a Level 1 member. The motion was made by Bill Bowhill with a second by Ken O. **The motion passed**.

# **SUMMARY OF ACTION ITEMS**

**ACTION ITEM 1**: Send Ali S. ideas on how to encourage more women to participate in the Arduino Contest. **(Owner: Ali Sheikholeslami)** 

**ACTION ITEM 2**: Send nominations for members-at-large to Ken O. **(Owner: Ken O)** 

#### **SPRING ADCOM MEETING NOTES**

#### Sunday, February 19, 2023:

#### 13:00 Introduction and House Keeping -- Brian Floyd

- Brian explained the hybrid AdCom format
- Voting will be done via unanimous consent
- For further details beyond the meeting notes, all presentations can be found at the link: (https://agd.ieee.org/mpt/Uploads/3/Agenda.aspx?eid=18088)
- · The meeting was recorded
  - Link to recording:

     https://us06web.zoom.us/rec/share/lsLwQloCV7lkZeuIndjGuBZWrc842vVEu6E0kKM4A

     RSpjHJqKcUDEyTw8Q8QwlbM.nGhe3QEy0 d7WPty?startTime=1676839518000
  - o If prompted for a passcode: Fi%B=8jU

# 13:03 Roll Call - Brian Floyd

• A quorum was present

### 13:05 President's Welcome -- John Long

- Welcome to new and returning members
- Society finances are robust despite COVID19
- Success stories
  - Strong increase in membership (~1000 new members)
  - Foundation strength (~\$1M in Meindl fund)
  - o PICO is an asset
  - o Circuits Insights is going well
  - Chapter revitalization
- Old Challenges
  - Recruiting volunteers
    - Link to current <u>SSCS volunteer opportunities</u>
  - Project execution (also a volunteer issue)
  - Increasing diversity
  - o Impact factor for new journals has been languishing but should arrive soon
- Recognition
  - Outgoing Member-at-Large certificates
- Revenue Threats:
  - Publications more than 2/3 of revenue at risk due to OA.
    - Lifetime revenue of an OA article is \$1,500, whereas lifetime revenue of a traditional article in JSSC is over \$4,500
    - US OSTP directive: EU continues to press forward; Asia is not yet clear.
       Whatever is decided may ripple through the system.
    - Conferences: additional costs and lower attendance
  - Hybrid conference incur additional ~fixed costs for:
    - Bandwidth for data
    - Technical support

- Volunteer and staff support
- Will mitigate in time with competition
- Experience is weaker for early career participants
- Lower engagement -> less "sticky" attendees
- Smaller hotel block -> less leverage for F&B, AV and bandwidth
- SSCS is forming an ad-hoc committee to look at these financial risks.
- Opportunities
  - Publications
    - OTSP Directive, OA Read and Publish
    - Providers prepaid APCs and IEL
    - SSCS community is slow to move to OA so we have more time
    - Renegotiating publication arrangements can be an opportunity to discuss new products
  - Meetings and Events
    - Hybrid meetings done well can attract new/more participants
    - Need to differentiate between in-person and online engagements
    - Consider sequential in-person and online conference segments
    - Avoid letting online limitations adversely affect on-line experience
      - In-person attendees wonder why they're watching a talk on-screen when they came in person
      - Technical glitches are magnified

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# 13:20 Treasurer's Report -- Terri Fiez

- 2022 Budget vs. November Forecast -> Large Surplus
  - We were expecting to have a surplus of \$174k but actual surplus was ~\$1M. 50% of surplus goes to projects. Comment was made that we typically put money to these projects but often do not make progress due to lack of volunteers.
- 3% and 50% Projects
  - Link to the project timeline slide deck
- 3% Spending Rule:
  - Eligible S/Cs can spend up to 3% of their share of the reserves for new initiative projects, provided the aggregate of the spending does not exceed 1% of the total TA reserves.
  - Following-year 3% projects proposed and prioritized in first half; funding approved by TAB Treasurer in Q3. Typically SSC received 1.5-2% or \$270k (SSC reserves ~\$15M)
- 50% Rule:
  - Qualifying S/Cs can spend up to 50% of their prior year operating surplus (before investment returns); this spending should be identified in the current-year forecast
- Both rules apply to new, non-operational initiatives only

- Three-year lifecycle
- o If no first-year expense, clock can be reset
- Education and Future Talent Foundation Fund also is an option
- 2023 Financial Summary
  - We are now seeing impacts of COVID as conferences return to in person in 2023
  - Expecting much lower surpluses and possible deficit in 2023. We are financially healthy society and can manage this short-term adjustment.
  - Impact will be reduced budget for projects. We have \$232k project carry over from 2023-2024. If no surplus in 2023, project funding would be limited to 3% project funding for 2023 or approximately \$270k.
  - US government requiring open access starting in 2024. This will change our revenue model for publications. John Long will appoint a 10-year Vision committee to explore future of society.
- 2023: \$10,000 to join Blockchain Technical Community
- 2024: \$15,000 cumulative page-count changes

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#### 13:30 Conferences Committee - Alessandro Piovaccari

- Committee Overview
  - Provide members of SSCS and IEEE with a broad range of high quality, peer-reviewed technical conferences
  - Oversee the finances, quality and policies of the five financially-sponsored conf (FSC)
  - Assist the FSC organization committees in organizing successful conferences and new initiatives within
  - Engage with other prime conferences outside the society for technical co-sponsorship (TCS)
- Accomplishments
  - Completed first year of mandate for VP, Associate VP and new Conference Committee
  - o Update to the SSCS Bylaws regarding committee members
  - Established a Hybrid Format Sub-committee initial work completed
  - Establishing a Conference Collaboration Sub-committee work in progress. Idea is to have more cooperation between societies and expand on meaning of tech co-sponsor.
- Topics to Highlight
  - Conference process for conference organizing committee (membership, rotation, terms); consider exceptions
  - Improve on cooperation between conferences
  - Educate and formalize process on new initiative funding
  - Opportunity to increase outreach in underserved areas (e.g., LASCAS, possibly extended tutorials, exchanging tutorials)
  - o Formalize local technically co-sponsored event procedure
- AdCom Discussion & Feedback

- Technically Co-sponsored conference
- Local technically co-sponsored event
- Hybrid/augmented conference format
- o Capitalize on on-demand material
- o Conference collaboration

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 Question related to Motion 7: A conference like VLSI-D is very aligned with new chapters in India. Is this something we should have more visible presence to drive SSCS in region? Answer

 it is a big conference, high profile, and well run. It focuses on digital technology and is a subset of ISSCC. Allesandro has already contacted and will eventually prepare material and take it through AdCom.

**MOTION 8**. Voting by email for any new application or renewal of co-sponsorship. Motion passed unanimously at the Conferences Committee meeting on Feb 9, 2023. No objections. Motion does not require approval from AdCom.

 Question after Motion 8 on the location of ISSCC and whether it could be moved, for example to San Jose, CA. Answer – ISSCC is committed to hotel to 2028 and there has been discussion at ISSCC ExComm level about location.

#### 13:45 Report on ISSCC 2023 – Eugenio Cantatore

# 13:55 Publications Committee Report - Shanthi Pavan

- Committee Overview
  - Oversees archival publications of the SSCS
  - Identifying new journal/magazine opportunities and championing them through IEEE processes
  - Identifying EiCs and supporting them
  - Overseeing performance of our journals/magazine
- Accomplishments
  - OJ-SSCS is on a good trajectory. Two years in a row with >20 publications. If a third year is >20 publications, it will then get an impact factor.
  - o Impact factor for SSCL → July 2023

 RFICS Magazine. Lot of discussion on the RFIC Virtual Journal and whether it is possible to switch to an RF Integrated Circuits and Systems (RFICS) Magazine. Alternatives are being discussed.

### Topics to Highlight

- Open Access (OJ-SSCS)
- SSCS Magazine costs we lose about \$90k/year, mostly due to printed mailing costs.
   Team is looking into keeping the electronic option as the default and resetting to this default option each year. This could prevent an inertia where people opt for printed magazines and continue to receive them unnecessarily year after year.
- AdCom Discussion
  - Rewarding SSCS reviewers
  - Volunteers and software support

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#### 14:15 Education/DL Report - Ali Sheikholeslami

- Committee Overview
  - Oversees SSCS DL & Webinar programs
  - Produces content for SSCS YouTube Channel
  - Circuit Design Contest
  - ISSCC Circuit Insights
  - o New Initiative: ISSCC Deep Dives
  - New Initiative: SSCS Arduino Contest
- Accomplishments
  - Running ISSCC 2022 Circuit Insights
  - 2500+ attendees from 65 countries
  - 41,269 views on youtube as of Jan. 2, 2023
  - SSCS Youtube subscribers: From 5901 on Jan. 1, 2022 to 9400 on Feb. 17, 2023
  - Setting up, preparation for SSCS Arduino Contest
- Topics to Highlight
  - Behzad Razavi has now created our first ISSCC Deep Dive for Wireline; will serve as model for other topics. He may agree to lead this initiative moving forward.

- Jeremy Cosson-Martin will lead the SSCS Arduino Contest
- Next 3-5 Year Plans
  - Circuit Insights at SSCS-sponsored conferences
  - SSCS Arduino Hackathon (in person; in collaborations with local chapters)
  - Education programs to attract more females
  - Prepare/deliver educational material to high schools
- Distinguished Lecturer (DL)
  - Thanks to Frank O'Mahoney for leading the program over the past two years. As of March 1<sup>st</sup>, Naveen Verma took over leadership.
  - Roster is finished for 2023-2024.
  - DL visits dropped from 73 in 2021 to 24 in 2020. Most active DLs were mentioned.
  - Overview of the DL academic/industry/technical/regional balance. Good balance.
- SSCS Webinar Program
  - Educational lectures on actual trends
  - Monthly, live, and online
  - Typical agenda:
    - 30 min presentation
    - 5 min Q&A
    - 15 min presentation
    - 10 min Q&A
  - Recordings and slides posted on SSCS Resource Center
  - Selected webinars posted on SSCS YouTube channel
  - 2700 live attendees in 2022 (250/month on average).
- Integration with SSCS Open Journal Webinars
  - Recent initiative by OJ-SSCS (Eugenio Cantatore) and JxCDC (Azad Naeemi) to launch the SSCS Open Journal Webinar Series
  - Potential for timing conflicts
  - o Potential of webinar overload, one webinar per month is ideal
  - o These webinars are now part of the regular SSCS Webinar Program
  - 2 OJ-SSCS, 2 JxCDC webinars per year, proposed by the EiCs, planned by the SSCS Webinar Committee
- SSCS Circuit Contest Committee
  - Increased number of submissions from all regions (from 10 to 18). Will continue.
- SSCS Youtube Channel
  - o 9,400 subscribers currently, up from 6820 in Mar. 2022.
  - Overivew of the top four videos.
- SSCS Resource Center doing well.
- Circuit Insights
  - Highlights of the session held at ISSCC 2023: 50 in person attendees, 1900+ registrants.
     Translated to around 250-310 per talk in reality. 263 took the quiz. Good comments from participants.
- ISSCC Deep Dives
  - o Produce in-depth review of 5 ISSCC2022 areas by 5 key speakers

- We needed a model to critique papers (perhaps by highlighting their strength) in order to avoid upsetting the original authors
- Behzad Razavi has now completed first example of this on wireline
  - Expected to release by the end of March 2023
- Behzad may be agreeable to lead this program for us moving forward
- Another suggestion (from SSCS Retreat): Shallow Dive for JSSC → Need a volunteer

#### Ardunio Contest

- o Welcome Video
- Contest is going well. Some legal issues related to privacy policy and the submission of videos by students. This resulted in deadline pushed out. High school and undergrads are working with Arduino and then submit a video. The team in charge has created many videos and posted to YouTube.
- Remaining issues how to encourage more women to participate
- Expand Arduino Contest
  - Year 1 will be US and Canada
  - Will expand to Europe/Asia with help from SSCS Chapters

**ACTION ITEM 1**: Send Ali S. ideas on how to encourage more women to participate in the Arduino Contest. **(Owner: Ali Sheikholeslami)** 

#### Video Primers

- By Experts to intuitively explain topics related to SSCS
- o For secondary and undergrad students
- Behzad Razavi to do this called Beauty of Circuits.

#### Other Items

- Post public excel sheet with key info
- Create 10 min intro + teaser for material in Resource Center
- Project Proposal: Education
  - Circuit Insights: Goal is to motivate students to choose/remain in the field. Would like SSCS to pay for all of this rather than part from ISSCC. Broadcasting live is very taxing to do this well. Budget details -- \$24k total = \$8k for in-person, \$4k for A/V recording, \$12k for select travel. Budget they have can cover this.

#### Discussion from AdCom

- Comment getting ready to launch IEEE-wide engine like Chat GPT.
- Question do we have consistent way to advertise SSCS membership on YouTube?
   How can we turn the page views into new members? Perhaps create one standard slide that advertises SSCS or maybe could add as an annotation on top. Team could go in and edit the existing videos.
- Question on Arduino contest. Is there an evangelist and what is the demand is for certain tutorials? Trying to target HS Students and trying to give information on electricity and magnetism as these subjects get cut from HS curricula.

#### 14:35 TC-OSE Report -- Boris Murmann

#### Committee Overview

- Our window into fast-growing open-source ecosystem. Many of people doing this are not coming to ISSCC; hence, we need to connect with these people.
- o Run Platform for IC Design Outreach (PICO) program
- o Develop vision and plan for open-source pub venues
- Curate examples & best practices for open-source design
- Collaborate with key players in the ecosystem

# Accomplishments

- o Ran 2022 PICO Chipathon
- \$30k donation from CHIPS Alliance (supported Code-a-chip)
- Contributed 4 magazine articles ("PICO Chronicles")
- Organized open-source workshops at VLSI & ESSCIRC
- Webinar by Boris Murmann

#### • Topics to Highlight

- Exploring partnerships with other societies and councils (CASS, CEDA, ACM SIGDA), foundations (CHIPS, OpenRoad) and corporate players (Google, Globalfoundries, Alibaba, ...)
- o Finding ways to scale our contests & making it easier to participate

#### AdCom Discussion & Feedback

- Plans for Chipathon 2023+
- Plans for Code-a-Chip 2023+. Running a second edition for VLSI. Write a Jupiter notebook and submit.
- Need more volunteers, mentors, content creators from within SSCS who will roll up sleeves...

#### SSCS PICO Chip-a-thon Overview

- o 2021: 61 submissions, 18 selected (11 taped out)
- 2022: 54 submissions, 22 selected (14 taped out)
- Chips have not come back yet.
- o 2023 Winners presented at ISSCC SRP Session

#### Project Proposal

- Coming from: TC Open-Source Ecosystem
- o Project Name: Bootstrapping Code-a-Chip Travel Grant & Hackathon Program
- Description:
  - ISSCC edition of code-a-chip was funded by CHIPS Alliance and has attracted lots of interest
  - Want to expand to other SSCS conferences and organize on-site hackathon
  - The SSCS dollar investment will bootstrap event and will allow us to raise additional external dollars
- O Why is this important and relevant at this time?
  - The program allows us to tap into large software community for future members
  - The program reaches out to communities outside SSCS and brings new talents to our conferences

#### Outcome

- Funds ~8-10 students to come to SSCS conferences
- Establishes new hackathon event for our overall community
- Will increase membership in the long run
- Budget details: \$50k total (\$35k for grants, \$15k for onsite room & logistics)
- Additional Questions and Discussions
  - Q: How can this be used within the EWD in the CHIPS and science act? A: Boris submitted a proposal for this for ME Commons.
  - O Q: Any sense of number of people being reached? A: Still small number (50 proposals).
  - O Q: Are projects large or small? A: Largest is around 10 students, some are small.
  - Q: Jupiter notebooks anything unique? A: Not unique, you are writing Python.

### **Solid-State Circuits Directions Report -- Kaushik Sengupta**

- First Technical Committee of the SSCS
  - The idea was first initiated by Boris Murmann and Ken O (Previous SSCS President), observing the absence of technical committee(s) in the society
  - o Officially launched in February 2020
- Objectives
  - Maintain forward-looking technical vision, enable SSCS to respond to rapid changes
  - Improve connection to new areas & to higher/lower abstraction levels, and form new communities
  - Provide leadership opportunities for young innovators
  - Increase membership participation in our technical visioning
- SSCD Committee
- Joint Workshop with IEEE Brain & EMBS
  - Proposal: merge with an existing workshop sponsored by IEEE Brain and EMBS (attendance is around 487)
  - Opportunity: Brain & EMBS are invested and keen to include SSCS
- SSCD Vision
  - The future of integrated systems cannot be invented by focusing on one abstraction only
  - The focus this year will be to address emerging core areas and emerging application domains, and bridge with other societies (beyond SSCS and beyond IEEE)
- Workshops for this year
  - Silicon startups (focus on "how", bring non-technical people as well)
  - A series of SSCS+X (X being another society) [SSCS + ED: emerging devices and computing] [FutureNetworks + SSCS].
- Questions and discussion
  - Q: How do we drive the art back to SSCS and bring more membership? How to identify
    if we are being successful what metrics? We should do the great stuff but then tie it
    back to SSCS.
  - A: Bring people whose home society is not SSCS into our society. Payam said also that
    we can also add advertisements to each content. Dan we need very good value
    proposition chart(s) that can be used everywhere. Brain workshop had buttons to "join

SSCS" but no way to track. Rakesh said we could have promotion where you can join SSCS for discounted fee.

# 14:50 Nomination Report -- Kenneth O

- Committee Overview
- Tasks
  - Slate for the Members at Large Election (Announce the slate in June on SSCS website)
  - Slate for the Vice President of Society (Ready 30 days before AdCom meeting in June)
  - o Slate for the President Elect of Society (Ready 30 days before AdCom meeting in June)
- Class of Members at Large (MAL)
  - o 3 from Asia
  - o 7 from NA
  - o 0 from Europe
  - o 4 Women
  - Need more from Europe and Asia and more women.

# **ACTION ITEM 2**: Send nominations for members at large to Ken O. (Owner: Ken O)

- Preparation of Slate for MAL Process
- Vice President and President Elect
  - Processes and timelines were reviewed for all scheduled 2023 elections, including the petition process for Vice President and President Elect.
  - According to Bylaw 6.2
    - A petition must be signed by at least three members of AdCom with full voting privileges.
    - The petition must be received by the Chair of the Nominations Committee at least 45 days before the election date, putting this year's deadline at April 27th or 28th depending on the date that is set for the Summer AdCom meeting in Kyoto (June 11th or 12th).

#### 15:00 Break

#### 15:15 Membership Report – Dan Friedman

- Committee Overview
  - Responsible for driving engagement and creating paths to value creation—through provision of technical information, networking—and development—for SSCS members
  - Key activities within the Membership umbrella include Chapters, Awards, WIC and other diversity initiatives, and YP
- Accomplishments
  - Membership at highest level since at least 2010
  - Chapters: initiated pre-college initiatives; chapter steering committee rotation completed and process developed; 12 new chapters in 2022 (10/12 were student chapters. Also, higher DEI was correlated to places we have these new chapters)

- WIC: expanded WiC sub-committee membership and engagement; improved statistics and data gathering
- YP: Chronus successfully transitioned to regular budget
- Awards: Meindl can support 2 awards/yr; Brokaw winner selected for 2023; 100 applicants for pre-doc!
- Topics to Highlight
  - o Target engagement at burst of new members and new student members!
  - o Pre-college engagement: Robotics FIRST outreach and other initiatives
  - Creation of catalog of suggested chapter events and educational material underway
  - Help wanted: want AdCom member signup for (1) YP mentorship advising; (2) YP WYE (webinar) advising; (3) Award liaison
- AdCom Discussion & Feedback
  - Solicit ideas for building momentum with new chapters
  - Engagement strategy with pre-college students—recommended actions
  - o Plan for award (re)vitalization, especially for newer awards
  - o Chapters budget—should it be raised? Should we tailor it to regional costs?
- Div-1& SSCS Membership Dec 2022
  - o 11,266 (up) is high water mark since at least 2010
  - No indication this was happening in July 2022
  - Senior membership up 1% which is a good sign
  - o Growth in student members (275→904) strongly correlated to new chapters in R8, R10
- Jan 2023: 11,384 members
- Deeper Dive: demographic & regional breakdowns
- Need Volunteers for Membership
  - Mentor for YP Mentoring Program (Chronus)
  - Mentor for WYE
  - Liaison for Awards
- Drive increased awareness of circuits field in pre-college students, feedback requested
  - o Revisit 3blue1brown potential engagement
  - Linkage to "The Signal Path" (https://thesignalpath.com/blogs/) or similar sites?
  - High school curriculum initiatives: in US, circuit unit in physics or computer science AP exam, for example? How are circuits introduced (if they are) in high school in other regions (8-10—EU, FE, . . .)?Additional request for Feedback
- Additional requests for feedback
  - Support for chapter outreach
  - Improving engagement/growth for Far east
  - Strategy for improving award nominee pools
  - Collaboration on defining/crystallizing value proposition
- Question on what really caused jump in membership? Answer: Think it is primarily from chapter grown. Possibly some growth related to the ASSCC discount (since a code was used, it should be possible to quantify this growth). Request was made on longevity data (i.e., retention).

#### 15:30 Chapters Report – Alvin Loke

Executive Summary

- Team Updates
  - Makota Nagata elected as vice-chair.
  - Formed chapters steering committee.
- Chapter Count & Activities
  - 128 Chapters (all-time high)
  - 12 new chapters
  - 518 activities reported, including highlights below
    - Webinar for pre-university engagement (developing tomorrow's circuit stars)
    - Commerative lectures on transistor's 75<sup>th</sup> anniversary.
    - Chapter's YouTube sub-channel is going strong
- Communications
  - New Chapters brief e-Newsletter sent to all chapters, created by Abira.
  - Two issues in 2022.
  - Chapter mailing lists updated. Regional lists updated.
- o Recognition
  - 5 new awards approved
  - Chapter Honor Roll (now 2<sup>nd</sup> year) on the website
- Finance
  - 2022: 42 subsidy requests
  - 2023: 43 subsidy requests
  - Already used up \$70k of the \$81k budgeted

# 15:40 Women in Circuits Report -- Farhana Sheikh

- Overview
  - o Sub-Committee under SSCS Membership
  - SSCS membership support and programs to increase female participation
  - Statistics-driven programs to up-level and increase diversity
  - o Increase diverse representation in academia and semiconductor industry
  - Collaboration across SSCS AdCom Committees: YP, Chapters, Diversity, ...
  - Increase outreach in academia and industry
- Accomplishments
  - Sub-committee organization to enable new leadership growth
  - Wider-scale active participation from SSCS WIC members
  - o "Bring-a-friend to SSCS & WIC" program initiated → goal: ↑ female SSCS members
  - Updated and improved statistics gathering → automation
  - o Family Care @ SSCS Conferences proposal for 2024 pilot @ ISSCC
  - o Formalized participation in Women in Engineering
  - o First female plenary at A-SSCC 2022 → diverse plenary list for SSCS
  - o STGA and mentoring grants: ISSCC, CICC, VLSI, ESSCIRC, A-SSCC, Brain
  - NextGen Designer Workshop @ ISSCC 2022
  - o Increase nomination of females to AdCom → 40% of AdCom is now female!
  - O Still more to do... October 2022 WIC Retreat to discuss / brainstorm
- Topics to Highlight

- Address downward trend at senior level positions at conferences
- Address stagnant 5% 10% representation at senior membership levels
- Improved statistics from all SSCS conferences
- Outreach in collaboration with Diversity Committee and Chapters
- Significant update to diverse potential TPC members list
- o 30% by 2030 target
- o Professional Development Program incentives to increase membership
- AdCom Discussion
  - Next steps for Family Care @ SSCS Conferences proposal
    - Q: Can this be done at VLSI? A: Plan to run pilot at ISSCC first.
  - Conference statistics to inform all SSCS Conference leadership
  - Uplevel of diverse SSCS members: "How to Become a Fellow?" seminar
  - Outreach in collaboration with other SSCS committees
  - SSCS Women in Circuits Award
  - o 30% by 2030 target
- 2023 WiC Statistics

#### 15:50 Diversity Report -- Kathy Wilcox

- Committee Overview
- Past Work (2021/2022)
  - IC Democratization
    - Membership statistics
    - Region
    - Gender
    - Membership status
    - Industry vs. academia
    - Race
  - Spending ideas
  - o Attended IEEE TAB Committee on Diversity and Inclusion Roundtables
    - SSCS is already doing many things other societies are doing
  - o IEEE D&I Best Practices
    - Diversity & Inclusion IEEE Technical Activities Operations
    - Link to IEEE Diversity Dashboard
- Next Steps
  - Need to turn our discussions into actual measurable actions
  - Plan to spend \$40K diversity project funds in 2023
    - Student travel grants
    - Distinguished Lecturer (or something similar) at universities
    - Outreach targeting middle school/high school
  - Committee responsibilities
    - Everyone commit to a specific task
  - o Leverage relationships with other organizations for outreach
  - Develop SSCS diversity website pages
  - Collaborate with SSCS chapters

- Questions and discussions
  - Q: Should WiC be merged with Diversity committee? A: Split the work between the two
    committees. They do work together but report out separately. Together they address
    the whole thing. SSCS is following the IEEE approach and thinks it is healthy to have two
    separate groups.
  - Q: Local vs. global diversity definitions can be different. A: We have known clear and present challenges and we should address these.
  - Comment: There are circuit activities in the less-represented regions but a key barrier is cost of our events – case example was increased participation in CICC when virtual cost reduced. Should we have regionally sensitive pricing for virtual attendance?

# 16:00 Awards Report – John Corcoran (presented by Dan Friedman)

- SSCS Fellow Evaluation
  - 6 SSCS members were elevated through SSCS FEC: Keith Bowman, Donhee Ham, Kenichi
     Okada, Woogeun Rhee, Sriram Vangal, Marian Verhelst
- Meindl Award
  - o Three nominations were entered in 2022, one award was granted to Daniel Limbrick
- Predoc Award
  - 63 PreDoc applicants, 26 were granted
- Summary of 2023 SSCS Award Winners
  - IEEE Meindl Award: 2023 Winner was Prof. Daniel Limbrick, North Carolina A&T
  - o IEEE SSCS New Frontier Award: 2023 Winner was Ruonan Han. MIT
  - o IEEE SSCS Industry Impact Award: 2023 Winner was Sam Naffziger, AMD
  - IEEE Brokaw Award for Circuit Elegance
    - 2023 Winner (single design concept, 5 awardees): Benjamin Hershberg, Un-Ku Moon, Yong Lim, Michael Flynn, Jorge Lagos Benites
  - SSCS Innovative Education Award: No nominees this year.
- Discussions
  - Do we have an official process on how to resubmit nominations, as it did not seem possible? Comments about problem with consistency on how these committees function. Need to have committee help generate candidates.
  - Discussion on an award related to IEEE Brain and how this goes out to all SSCS conferences.
  - Lots of discussion on the Brokaw Award.

# 16:10 Young Professionals Report – Zeynep Lulec and Korkut Tokgoz

- Committee Overview
  - YP committee focuses on addressing the needs & interests of the SSCS early career members [0-15y]
    - 3250 SSCS YP members that are future of our society (~30% of overall membership)
  - The committee is a great incubator for acquiring leadership skills for our younger members by taking ownership of the projects.
  - o YP Committee strives to address the needs and interests of our younger members

- YP committee is currently responsible for in-person & online mentoring and networking events / platforms, as well as webinars tailored for YPs & graduate students.
- Accomplishments
  - Online & virtual events to increase our reach out
  - Micromentoring in SSCS Conferences
    - VLSI 2022 Organized w/ WiC
    - ESSXXRC 2022 Organized w/ WiC
    - ASSCC 2022 Financial support
    - ISSCC 2023 Flagship Mentoring & Networking
    - CICC 2023 Financial support
  - Chronus reached to over 240 users. (+50 seats). It is a 6-month mentorship program.
     SSCS is leading IEEE in this initiative.
  - Webinars
    - 2 more Webinars for Young Excellences (12 total webinars so far)
    - Collab w/ Webinars Committee, WiC, and EDS.
  - Committee empowerment to support increasing palette of activities (YP leadership grant, \$500).
- Topics to Highlight
  - Want support from senior members to help with mentorship/liaison
  - Leadership change this year!
  - Empowerment of YP committee for sustainable projects
  - Chronus & WYE can benefit from senior member support
  - o In-person mentoring events YP program coordinators: 1-2 volunteers/conf
  - A more structured approach toward organized events with surveys and KPIs.
  - SSCS Mag YP Column
- AdCom Discussion and Feedback
  - AdCom member support for Chronus (long-term project now)
  - AdCom member support for WYE program
  - New Project: Biannual virtual mentoring
- 2023 Plan
  - Online and in person mentoring sessions at SSCS sponsored conferences
  - Continued empowerment of the YP committee
  - SSCS Magazine column
  - More mentors, advertisement
- 2023 SSCS Young Professionals Budget
  - o Mentoring Events: \$15K
  - Online Webinars @\$2k
- Project Proposal
  - YP Virtual Mentoring & Networking Sessions
    - Budget <\$1k

# 16:20 Councils, Communities and Initiatives Report -- Bill Bowhill

- SSCS Membership Participation
  - 19% of SSCS Active Members

#### Overview

- o SSCS Reps foster collaboration and engagement with IEEE Activities
- Seek opportunities for workshops, special sessions and invited speakers
- Learn from best practices of other societies and groups

# Accomplishments

- o Reps Actively Engaged With Activities
- Brain: WS in '22, planning for '23 WS and MOU renewal
   details next ADCOM
- CASS engagement with PICO
- Sustainable ICT activity in redefinition
- Life-science MOU expired –working to re-sign
- Transport Electrification proposal next ADCOM

#### Tactical Plan

- Advertising activities to members/signup
  - Add news subpage
- Scheduling updates in SSCS magazine
- o Regular connection with SSCD team to develop workshops
- Alignment of MOUs for consistent engagement model
- Expand CASS collaboration

#### AdCom Discussion

- CASS enthusiastic to grow collaboration
- Opportunities:
  - Conference joint TCS relationships
  - Joint WS, SS, @ conferences
  - Co-develop new student chapters
  - SSCS become a T or F sponsor of TBioCAS
  - Participate in CASS Africa. Need to identify Rep
- Motion to join blockchain initiative
  - Blockchain
    - What is it? A distributed ledger of transactions, ledger entries are verified transactions
    - Uses? Cryptocurrency, e-government records, IoT, supply-chain information exchange, smart contracts
    - SSCS Technologies can help digital signatures, identity token, secret keys
    - IEEE Blockchain Initiative → Tech Community

**MOTION 14**. Join the IEEE Blockchain Technical Community as a Level 1 member. The motion was made by Bill Bowhill with a second by Ken O. **The motion passed**.

• Financial impact = \$5k fixed contributions in 2023/24/25 plus additional up to \$5k to cover projected early loss

# 16:35 Financial Implications of This Meeting -- Terri Fiez

- Ops Budget
  - o 2023: \$10,000 to join Blockchain Technical Community

- 2024: \$15,000 cumulative page-count changes and \$15,000 to increase in VLSI advance (intent is for conference to pay back)
- 2023 project carry over to 2024 = amounts to \$222k
- 2024 new projects = code-a-chip 50k, circuit insights \$24k, family care \$20k, YP mentoring \$1k, comment that this should be doable.

# 16:45 New Business / Open Discussion - All

• Chris – lot of discussion of the integrity of some of our publications (journals and conferences). Got to a level that some people are giving up on ISSCC. Need to get this out in the open. It has gotten to a level where it is hurting us. Some comments on difficulty between judging novelty vs. performance. Comment on ISSCC papers not having the comparison to theory, and thus just tables for comparison, which can then lead to data manipulation. Bram has said that there is definite cheating. Discussion is tabled to the next meeting.

17:00 Meeting Adjourned

**Group Photo** 

# **Meeting Agenda**

# Time zone is Pacific Standard Time (GMT-08:00)

#	Time	Туре	Presenter	Agenda Item
1	13:00	Info	Brian Floyd	Roll Call and Housekeeping
2	13:05	Info	John Long	President's Welcome/Recognition
3	13:15	Motion	John Long	Approve Agenda
4	13:17	Motion	John Long	Approve Summer 2022 AdCom Minutes
5	13:20	Report	Terri Fiez	Treasurer's Report
6	13:30	Report	Alessandro Piovaccari	Conferences Report
7	13:45	Report	Eugenio Cantatore	ISSCC 2023 Update
8	13:55	Report	Shanthi Pavan	Publications Report
9	14:15	Report	Ali Sheikholeslami	Education/DL Report
10	14:35	Report	Boris Murmann	TC-OSE/SSCD Report
11	14:50	Report	Kenneth O	Nominations Report
12	15:00	Procedural	All	Break
13	15:15	Report	Daniel Friedman	Membership Report
14	15:30	Report	Alvin Loke	Chapters Report
15	15:40	Report	Farhana Sheikh	Women in Circuits Report
16	15:50	Report	Kathy Wilcox	Diversity Report
17	16:00	Report	John Corcoran	Awards Report
18	16:10	Report	Zeynep Lulec	Young Professionals Report
19	16:20	Report	Bill Bowhill	Councils, Communities and Initiatives Report
20	16:35	Report	Terri Fiez	Financial Implications of This Meeting
21	16:45	Discussion	All	New Business/Open Discussion
22	17:00	Motion	John Long	Adjourn