SSCS Chapter Officers Luncheon at A-SSCC

Alvin Loke, Boris Murmann, Abira Altvater, Dan Friedman, Lauren Caruso, Danielle Marinese, Ashley Seda, Adam Greenberg, Makoto Nagata, and John Long

November 9, 2022

◆IEEE

Agenda

Time (Taiwan)	Item	Presenter
12:00 – 12:05	Get settled	–
12:05 – 12:35	Chapters Update	Alvin Loke
12:35 – 12:45	SSCS PICO Update	Boris Murmann
12:45 – 13:00	Q&A / Open Discussion	All

Executive Summary

Category	Items
Team Updates	• New Vice Chair Makoto Nagata, New Administrator Ashley Seda • Chapters Steering Committee – formed Aug-2021, time to refresh membership
Chapter Count	• 118 chapters (52 SSCS-only, 41 Joint, 25 Student) • 3 fewer chapters since since 28-Feb-2022 - 5 new (4 Student), 8 dissolved (6 Student)
Communication	• Chapters Brief E-Newsletter Email -- inaugural issue sent 13-Apr-2022 • Chapter mailing lists updated, ready for inter-chapter initiatives
Activities	• Webinar for Pre-University Engagement – Inspiring and Developing Tomorrow's Circuit Stars • Commemorative Lecturers for Transistor 75th Anniversary – roster ready, pending rollout to chapters • Chapters YouTube channel going strong (25k+ views for top-5 videos)
Recognition	• 5 new awards added to existing Chapter of the Year Award (to be awarded at ISSCC 2023) • New Chapter Honor Roll on website
Finance	• 2021 – 36 subsidy requests, all disbursed • 2022 – 43 subsidy requests, 5 pending disbursement (approve $67.1k out of $81k budget) • 2023 – further streamline subsidies with goal to full disbursement by Feb-2023
Initiatives (in flux)	• Opportunities to form new chapters – 46 potential sections identified • SSCS Tutoring

Chapters Core Team

THANK YOU!

Lauren Caruso

Congrats on your retirement!

Abira Altvater
abira.altvater@ieee.org

Congrats on your new role in PES!
You will do amazing things wherever you go!!!

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Makoto Nagata
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Dan Friedman
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SSCS VP Membership

John Long
jrlong@uwaterloo.ca
SSCS President

Chapters Steering Committee (08/2021–present)

Name	Affiliation	Region	Experience
Sergio Bampi	Universidade Federal do Rio Grande do Sul	9	Past South Brazil Chair, Past Webinar Committee member
Andrea Baschirotto	University of Milano-Bicocca	8	Italy Chair, done lots of short course organizing
Bruce Doyle	Apple	5	Past Denver Chair, planning to resurrect Denver Chapter
Romane Dumont	STMicroelectronics	8	Past Bordeaux Student Chapter Chair
Mohammad Hunain Memon	University of Science and Technology of China	10	USTC Student Chapter Chair
Woogeun Rhee	Tsinghua University	10	Active helping Beijing chapter with seminars
Farhana Sheikh	Intel	6	Oregon Chair
Patrick Yue	Hong Kong University of Science and Technology	10	HKUST Student Chapter Faculty Advisor, Past VP Membership
Sharif Zadeh	AI Technologies	6	Past Santa Clara Valley Chair, instrumental in resurrecting Webinar program
Makoto Nagata	Kobe University	10	Past Kansai Chair
Alvin Loke	NXP	6	Past San Diego and Denver Chair

- To keep committee fresh, members have been contacted to ask if they want to continue participating in 01/2023 onwards
- New members will be invited to replace exiting members

118 Chapters as of August 12, 2022

- Breakdown
  - 52 SSCS-only chapters
  - 41 Joint chapters
  - 25 Student chapters (14 SSCS-only, 11 Joint)

- Since 28-Feb-2022
  - 3 fewer total chapters
  - 5 new chapters (1 SSCS-only, 4 Student)
    1. Amal Jyothi College Of Engineering
    2. College of Engineering-Kallooppara
    3. Kerala Section Chapter
    4. LBS Institute of Technology for Women
    5. National Engineering School of Sfax (ENIS)
  - 8 inactive chapters dissolved (1 SSCS-only, 1 Joint, 6 Student)

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Communication – Chapter Leadership

- New mailing lists ready
  - All chapter officers
  - Chapter chairs only
  - Student chapters only
  - Region-based lists to simplify sharing of virtual events

- SSCS website updated to reflect updated chapter officers

- Notify SSCS of any and all changes in officers
  - Rotate chairs if others are interested
  - Encourage chairs to recruit vice chair, critical for succession
  - Communicate with student chapter faculty advisors for chapter continuity

- Resources (video recording available on website)
  - Officers Meeting (22-Mar-2022)
  - Chapters Best Practices Webinar (22-Sep-2021)

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Communication – Chapters Brief E-Newsletter

- Inaugural issue 13-Apr-2022, 2nd issue 02-Nov-2022
- Content
  - Message from SSCS Chapters Chair
  - Meet the SSCS Chapters Team
  - SSCS 2021 Outstanding Chapter Award Recipients
  - SSCS Chapter Honor Roll
  - Officer Reporting – New Officer and Officer Changes
  - Reminder to Submit Chapter Activities to vtools
  - SSCS Tools & Links for Chapters
  - SSCS Distinguished Lecturer
  - SSCS Products for Chapters
  - Chapter Subsidies - Update
  - Call for Chapter News
  - Meet a Chapter Chair

- Opportunity to make announcements for other SSCS groups/activities, e.g., SSCD events, host-location chapters reach out to conferences

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IC Innovation

SSCS Chapters Brief
Volume 1, Issue 1

Message from the SSCS Chapters Chair

Welcome to the inaugural edition of the SSCS Chapters Brief, a quarterly newsletter specifically designed to keep you up-to-date on important information and resources for running your chapter. If you have suggestions on what you would like to see in future editions or how SSCS can help, we would love to hear your feedback. You play the essential role of bridging our society to your local membership. Thanks for all that you do and keep up the fantastic energy!

Alvin Loke (alvin.loke@ieee.org)
SSCS Chapters Chair

Administrative – Required Reporting (REMINDER)

- In order to maintain viability and to ensure that all Chapters are meeting the needs of their members, each Chapter is <u>required to submit annual reports.</u>
- Scheduling and reporting meetings requires an IEEE Account and must be done using vTools events.
- Officers can schedule future events or report an event that has taken place via vTools. All meetings, including those scheduled in vTools, must be reported with the number of members and guests attended
- All meetings, including social events and administrative meetings must be held. Categories include (administrative/executive committee meetings, professional development meetings, technical meetings such as technical talks or DL's, non-technical meetings such as social activities or awards dinners, and humanitarian meetings).
- Minimum meeting requirements are as follows: FIVE meetings for sections and subsections, TWO meetings for Chapters, and TWO meetings for Affinity Groups
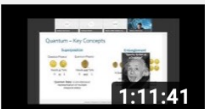
Important: Notify SSCS Executive Office of any changes to Chapter Officers, Events, etc.

Activities – YouTube Channel on Chapter Events

- Launched in April 2021
- https://www.youtube.com/playlist?list=PLvYonHCKSWag8a_z2KH6XQVoeEl9GOQcw
- Links to participating chapter YouTube videos & archive of chapter videos
- Please send Ashley your chapter recordings or links to them

Top 5 Videos

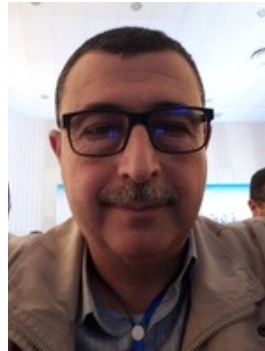|		Views
1	**50 Years of Computer Architecture: From Mainframe CPUs to DNN TPUs, David Patterson, Google Brain** 1:33:32 IEEE SSCS Silicon Valley Chapter	14,746 views
2	**High-Speed CMOS Serial Transmitters for 56-112Gb/s Electrical Interconnects Tod Dickson** 1:31:48 San Diego Joint APS CAS EDS MTTS SSCS Chapter	4,036 views
3	**Distinguished Talk 09: Nanoscale FinFET Technology for Circuit Designers - Dr. Alvin Loke** 1:36:01 IEEE SSCS-EDS South Brazil Chapter	3,044 views
4	**Quantum Computing: an IC Designer Perspective - Presented by Stefano Pellerano** 1:11:41 IEEE Solid-State Circuits Society	2,417 views
5	**Plasticine: A Reconfigurable Dataflow Architecture for Software 2.0, Kunle Olukotun, Stanford-Part 1** 1:00:15 IEEE SSCS Silicon Valley Chapter	1,970 views

Activities – Pre-University Engagement

- Webinar - June 29, 2022 @ 7:00-8:15am PDT
- Inspiring and Developing Tomorrow's Circuits Stars
- https://www.youtube.com/watch?v=NIkPZIY9L2w
- Speakers
  - John Long (introduction)
  - University of Nis Student Chapter Summary (Sandra Veljkovic)
  - Tunisia Chapter Summary (Brahim Mezghani)
  - Perspectives of Teaching Secondary School Electronics – Opportunities and Challenges (Tony Mauro, Canyon Crest Academy, San Diego)
  - SSCS PICO Program (Boris Murmann, Stanford)

Activities – Pre-University Engagement (cont'd)

High School Student Engagement
What works and what doesn't

- Electronics Circuit / Digital Electronics Course - end of course 'satisfaction' survey on content
- Analog Circuit Design
  - Basic network analysis
  - Analog filters, Rectifiers, Amplifiers
- Digital Logic Design
  - Combinational logic control
  - Flip-flops / Counters
  - Sequential logic control
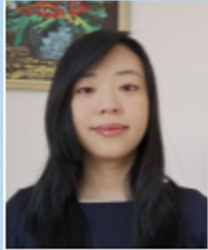 - High-level description language

Activities – 2022 Distinguished Lecturer (DL) Roster
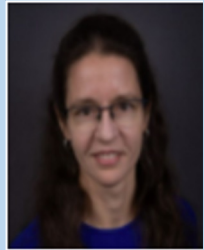
2021 – 2022

Mike Chen

Qinwen Fan

Brian Ginsburg

Danielle Griffith

Jaydeep Kulkarni

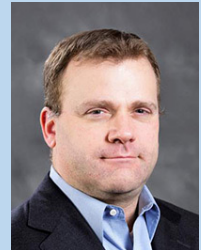Noriyuki Miura

Alyosha Molnar

Arijit Raychowdhury

Chris Rudell

Seung-Tak Ryu

Visvesh Sathe

Sudip Shekhar

Nan Sun

Filip Tavernier

2022 – 2023

Jane Gu

Robert Henderson

Jaeha Kim

Tony Tae-Hyoung Kim

Nagendra Krishnapura

Carolina Mora Lopez

Hanh-Phuc Le

Yoonmyung Lee

Yan Lu

Danilo Manstretta

Matteo Perenzoni

Yvain Thonnart

Rangharajan Venkatesan

David Wentzloff

Wanghua Wu

Activities – Why Invite DLs

- Roster of well-known and established speakers

- SSCS (not chapter) pays for speaker's travel

- OK to live-stream DL talks, not OK to publicly post DL slides or video until speaker's term is over (make sure you have DL's approval to record talk and post later)

- Must include/inform Frank O'Mahony (frank.omahony@intel.com) in invitation email to DL speaker

- Inform Ashley once DL is secured for posting to chapter website

Activities – Commemorative Lecturers for Transistor 75th Anniversary

- EDS and SSCS are jointly offering series of initiatives to commemorate the 75th anniversary of the transistor invention

- Elite roster to present in-person/virtual SSCS/EDS chapter talks that offer historical perspectives of transistors and their applications

- Details to be released soon

- DL-like travel budget to be allocated

- 10 SSCS Commemorative Lecturers
  - Christian Enz (EPFL, Switzerland)
  - Terri Fiez (U. Colorado – retired, USA)
  - Makoto Ikeda (U. Tokyo, Japan)
  - Thomas Lee (Stanford U., USA)
  - Nicky Lu (Etron, Taiwan)
  - Chris Mangelsdorf (ADI – retired, USA)
  - Bram Nauta (Twente U., Netherlands)
  - Carlo Samori (Politecnico Milano, Italy)
  - Viola Schaffer (TI, Germany)
  - Hoi-Jun Yoo (KAIST, Republic of Korea)

Activities – Announce Other SSCS Activities

- Webinars
  1. SSCS Technical Webinars
     - Focus on technical topics of contemporary interest (AI/ML hardware, RF, data converters, wireline, IoT, etc.)
     - Monthly (12 per year)
     - Contact: Filip Tavernier, filip.tavernier@kuleuven.be (Webinar Chair)
  2. SSCS Webinars for Young Excellence (WYE)
     - Focus on non-technical topics related to career development (career advice, career transitions, growing areas, etc.)
     - Quarterly (4 per year)
     - Contact: Xinfei Guo, xinfei.guo@gmail.com & Ka Meng Lei, kamenglei@um.edu.mo (WYE Co-Chairs)

- Events hosted by other chapters – email Ashley to distribute

Recognition – Chapter Honor Roll

- New webpage - https://sscs.ieee.org/chapters/sscs-chapter-honor-roll

2021 SSCS Chapter Honor Roll

These chapters have held more than eight activities in 2021.

University of Nis (Joint with EDS)	Tunisia Section
University of Science and Techology of China	United Arab Emirates Section (Joint with CAS and PELS)
Serbia and Montenegro Section (Joint with EDS and SSCS)	Hong Kong Section (Joint with EDS)
Bipin Tripathi Kumaon Institute of Technology	France Section
Malaysia Section, Penang (Joint with EDS and MTT)	Tainan Section
Chile Section (Joint with CAS and EDS)	Taipei Section
San Diego Section (Joint with APS, EDS, MTT, and CAS)	Wuhan Section (Joint with CAS and EDS)
Huazhong University Of Science And Technology (Joint with CAS and EDS)	North Macedonia Section (Joint with EDS and IMS)
Switzerland Section	Oregon Section
Bangladesh Section (Joint with EDS)	South Brazil Section (Joint with EDS)
Kolkata Section	

Recognition – New Expanded Chapter Awards

- Fully approved by Awards TAB in June 2022
- Awards to be presented at ISSCC 2023

No.	Award Name	Award Prize
1	Chapter of the Year	$ 1,500
2	Student Branch Chapter of the Year	$ 1,000
3	Chapter with Best Educational Program	$ 1,000
4	Chapter with Best Distinguished Lecturer Program	$ 1,000
5	Chapter with Best Women-in-Circuits Program	$ 1,000
6	Chapter with Best Pre-University Outreach	$ 1,000

- Call for nominations already sent out in October 2022

Finance – Chapter Subsidies

Year	Number of Requesting Chapters	Total Requested	Total Approved	Allocated Budget
2021	36	$ 60,886	$ 70,100	$ 76,400
2022	43	$ 64,970	$ 67,100	$ 81,000

- SSCS single chapters are eligible for up to $2,000 a year to subsidize chapter maintenance costs or activities, Joint Chapters are eligible for up to $1,000 a year
- Use Concentration Banking accounts for fastest disbursement of funds
- New chapters should immediately apply for subsidies
- Called for additional subsidy requests for pre-university activities (mid-October)
  - 10 subsidies received, in process to disburse remaining chapter budget
- Pull in subsidy in 2023 so that funds get to your hands early
  - Call for 2023 subsidy requests in October → mid-December deadline

Agenda

Time (Taiwan)	Item	Presenter
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12:10 – 12:40	Chapters Update	Alvin Loke
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12:50 – 13:00	Q&A / Open Discussion	All