

SSCS Chapter Officers Luncheon at ESSCIRC/ESSDERC

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

September 21, 2022



Agenda

| Time | Item | Presenter |
|---------------|--|------------------------------|
| 13:00 – 13:20 | Chapters Update | Alvin Loke Abira Altvater |
| 13:20 – 13:30 | SSCS PICO Update | Boris Murmann |
| 13:30 – 13:40 | Group Photo | All |
| 13:40 – 14:00 | Breakout Session <ul style="list-style-type: none">• How chapters can organize joint inter-chapter activities• How to plan post-COVID chapter activities• What SSCS can do to facilitate | All |
| 14:00 – 14:20 | Share ideas from Breakout Session | All |
| 14:20 – 14:30 | Open Discussion | All |



Executive Summary

| Category | Items |
|-----------------------|--|
| Team Updates | <ul style="list-style-type: none"> • New Vice Chair Makoto Nagata, New Administrator Ashley Seda • Chapters Steering Committee – formed Aug-2021, time to refresh membership |
| Chapter Count | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • Chapters Brief E-Newsletter Email -- inaugural issue sent 13-Apr-2022 • Chapter mailing lists updated, ready for inter-chapter initiatives |
| Activities | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 5 new awards added to existing Chapter of the Year Award (to be awarded at ISSCC 2023) • New Chapter Honor Roll on website |
| Finance | <ul style="list-style-type: none"> • 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) | <ul style="list-style-type: none"> • 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!!!



Alvin Loke
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SSCS Chapters Chair



Makoto Nagata
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SSCS Chapters Vice Chair



Ashley Seda
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SSCS Chapters Administrator



Danielle Marinese
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SSCS Chapters Administrator



Adam Greenberg
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SSCS Executive Director



Dan Friedman
dfriedmn@us.ibm.com
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 Baschiroto | 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 will be 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)



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)



Communication – Chapters Brief E-Newsletter

- Inaugural issue sent 13-Apr-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
- Target second issue for October 2022
 - Opportunity to make announcements for other SSCS groups/activities, e.g., SSCD events, host-location chapters reach out to conferences



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 [required to submit annual reports](#).
- 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




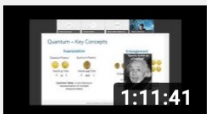
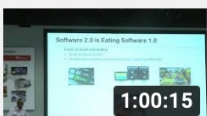
Important: Notify SSCS Executive Office of any changes to Chapter Officers, Events, etc.



Activities – YouTube Channel on Chapter Events

- Launched in April 2021
- https://www.youtube.com/playlist?list=PLvYonHCKSWag8a_z2KH6XQVoeEI9GOQcw
- Links to participating chapter YouTube videos & archive of chapter videos

Top 5 Videos

| | | |
|---|---|---|
| 1 |  | 50 Years of Computer Architecture: From Mainframe CPUs to DNN TPUs, David Patterson, Google Brain IEEE SSCS Silicon Valley Chapter |
| 2 |  | High-Speed CMOS Serial Transmitters for 56-112Gb/s Electrical Interconnects San Diego Joint APS CAS EDS MTTSS SSCS Chapter |
| 3 |  | Distinguished Talk 09: Nanoscale FinFET Technology for Circuit Designers - Dr. Alvin Loke IEEE SSCS-EDS South Brazil Chapter |
| 4 |  | Quantum Computing: an IC Designer Perspective - Presented by Stefano Pellerano IEEE Solid-State Circuits Society |
| 5 |  | Plasticine: A Reconfigurable Dataflow Architecture for Software 2.0, Kunle Olukotun, Stanford-Part 1 IEEE SSCS Silicon Valley Chapter |

14,718 views

3,967 views

2,875 views

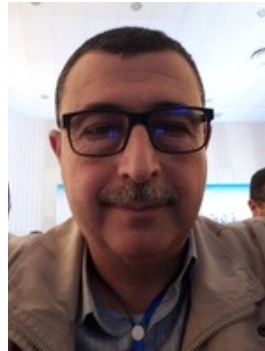
2,297 views

1,941 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=NIkPZIIY9L2w>
- 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)

Alvin Loke Tony Mauro brahim mezghani Abira Altvater Sandra Veljkovic

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

| Category | Analog | Digital |
|-----------------------|--------|---------|
| Initial Interest | 1.8 | 2.8 |
| Difficulty | 3.8 | 3.0 |
| Real-world Connection | 2.5 | 3.8 |
| Hands-on Projects | 1.8 | 3.5 |
| Overall Satisfaction | 3.2 | 4.8 |

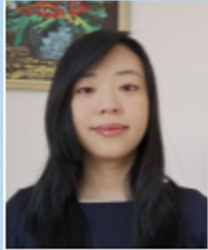


Activities – 2022 Distinguished Lecturer (DL) Roster

2021 - 2022



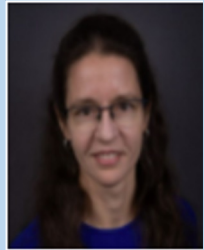
Mike Chen



Qinwen Fan



Brian Ginsburg



Danielle Griffith



Jaydeep Kulkarni



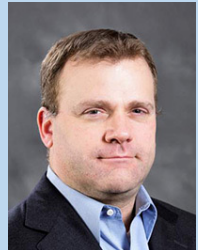
Noriyuki Miura



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



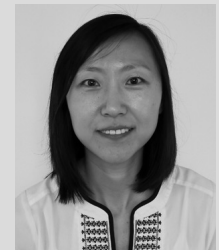
Yvain Thonnart



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
- **Travel budget (similar to regular DLs) needs to be allocated**
- Secured SSCS Commemorative Lecturers (several more pending)

- 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)
- 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)

University of Science and Technology of China

Serbia and Montenegro Section (Joint with EDS and SSCS)

Bipin Tripathi Kumaon Institute of Technology

Malaysia Section, Penang (Joint with EDS and MTT)

Chile Section (Joint with CAS and EDS)

San Diego Section (Joint with APS, EDS, MTT, and CAS)

Huazhong University Of Science And Technology (Joint with CAS and EDS)

Switzerland Section

Bangladesh Section (Joint with EDS)

Kolkata Section

Tunisia Section

United Arab Emirates Section (Joint with CAS and PELS)

Hong Kong Section (Joint with EDS)

France Section

Tainan Section

Taipei Section

Wuhan Section (Joint with CAS and EDS)

North Macedonia Section (Joint with EDS and IMS)

Oregon Section

South Brazil Section (Joint with EDS)



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 to be 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
- Call pending for additional subsidy requests for pre-university activities
- Pull in subsidy in 2023 so that funds get to your hands early
 - Call for 2023 subsidy requests in October → mid-December deadline



Agenda

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| 13:00 – 13:20 | Chapters Update | Alvin Loke Abira Altvater |
| 13:20 – 13:30 | SSCS PICO Update | Boris Murmann |
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