Wi-Fi Access

Network Name: IEEE-ACM2023

Password: ICCAD2023

Agenda

	7:30 – 8:00 AM	Breakfast	
1	8:00 – 8:05 AM	Welcome and Call to Order Roll Call Approval Agenda and Minutes	Nam/Vatajelu
2	8:30 – 9:00 AM	Finance	Zapater
3	9:00 – 9:30 AM	Strategy	Macii
4	9:30 – 10:00 AM	Technical Activities	Ho
5	10:00 – 10:30 AM	Initiatives	O'Connor
6	10:30 – 11:00 AM	Conferences	Bolchini
7	11:00 AM – 12:00 PM	Publications	Henkel
8	12:00 – 1:00 PM	Break for Lunch	
9	1:00 – 1:30 PM	Awards	Gielen
10	1:30 – 2:00 PM	Standards	Dey
11	2:00 – 2:30 PM	Publicity	Dubaj
12	2:30 – 3:00 PM	2024-2025 Slate	Chang
13	3:00 – 4:00 PM	Brainstorming & Action Items	All
14	4:00 –4:15 PM	Admin Updates Confirm 2024 Meeting Schedule	Osborn
15	4:15 –5:00 PM	Old/New Business	All

President’s Report

Gi-Joon Nam

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

2023 Priorities: Cultivate New Opportunities and Collaboration

- Full presentations in EC meeting to allow more time for discussion
- Please make your presentations directly to-the-points

for coming prepared

2023 Priorities: Cultivate New Opportunities and Collaboration

- Increase engagement and participation of Vice Presidents at monthly virtual calls and in-person meetings
- Increase engagement and participation of Member Societies and representatives
- Create more formal process for appointing/reappointing Member Society, Member Technology, and Conference Representatives with term limits
- Identify and Share Disruptive Technology through strategic initiative projects

Today's meeting highlights

- TCAS-AI journal phase 2 proposal
- Kaufman award dinner planning & preparation
- 2023 initiative projects
- CEDA strategic initiatives
- 2024-2025 CEDA EC slate

TAB-level discussion: Proposal for IEEE Councils

Proposal: We propose modifying IEEE Bylaws and the TAB Operations Manual to support nominating Council Officers as Division Director in the Council's Division, whether or not that person is also a Member of a Society in that Division.

The following changes would be required. (Please note that I may not have identified every required change.)

Changes to the IEEE Bylaws (The underlined sentences have been added.)

I-200. THE ASSEMBLY

I-201. Membership

1. How Constituted. The Assembly shall consist of 23 delegates, who shall be the IEEE President, the IEEE President-Elect, the IEEE Past President, the ten Region Delegates, and the ten Division Delegates.

2. Division Delegates. The terms of the Delegates from even-numbered Divisions shall begin in odd- numbered years and terms of the Delegates from odd-numbered Divisions shall begin in even- numbered years. A Delegate elected by a Division shall be a member of and maintain membership in at least one of the Societies or shall have been an Officer and remain active in at least one of the Councils within that Division, and shall have a term of office of two years. Additional eligibility requirements, beyond those stated in these Bylaws, shall be specified in the Technical Activities Board Operations Manual, as approved by the Technical Activities Board, and reported to the IEEE Board of Directors. In the case of Delegate-Elect, the term of office may be for one or two years and shall be consistent with the provisions of the Bylaws dealing with Nominations and Elections. If a vacancy occurs for any reason, it shall be filled in accordance with Bylaw I-301.12.

- Related discuss: Should Councils have (paid) membership?
- Being discussed targeted for Nov. TAB meeting, but very likely it will be delayed to Feb TAB meeting

CEDA EC Dinner 7 pm - 10 pm Tonight

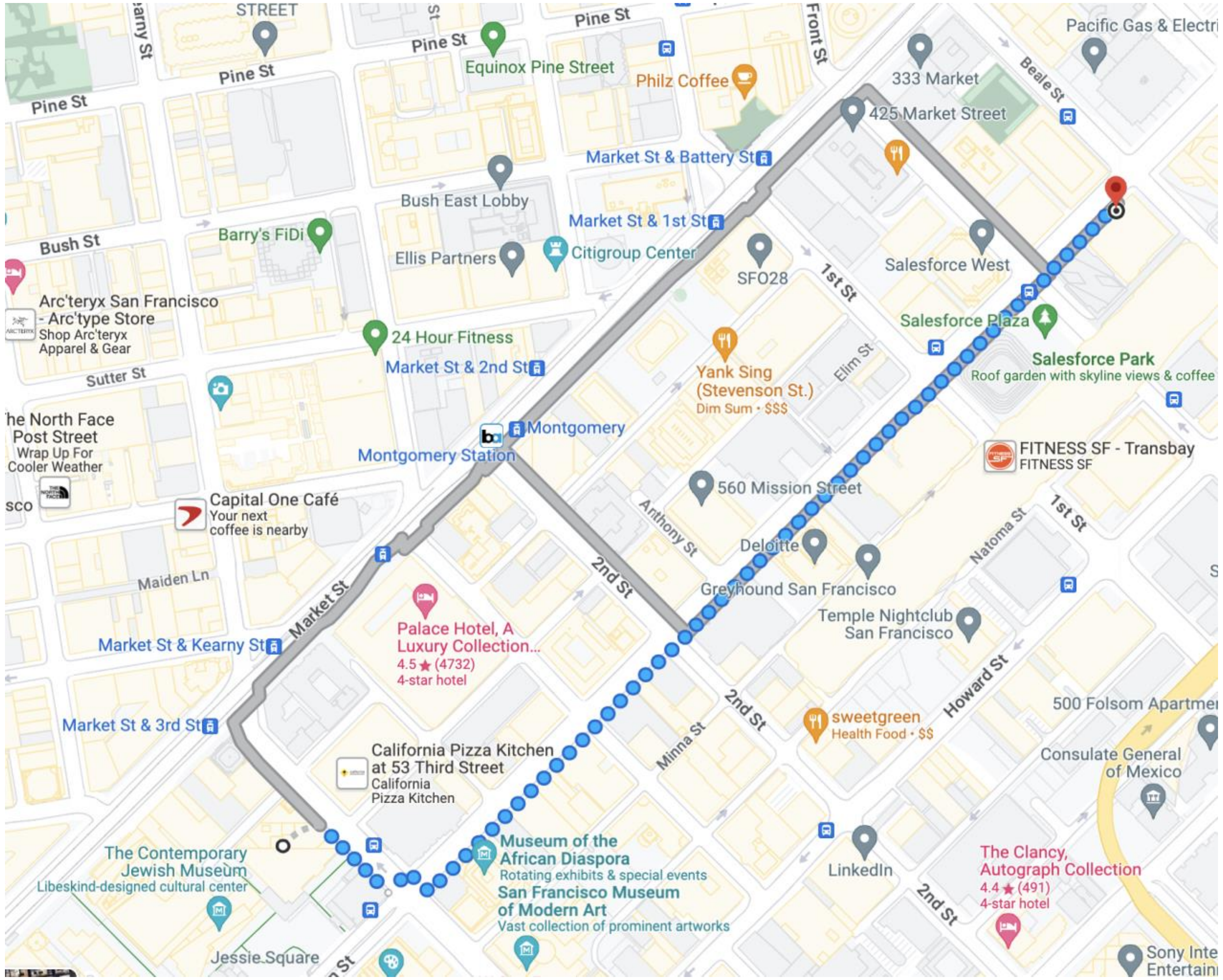
International Smoke

Main dining room

301 Mission St

San Francisco, CA 94105

(12 min walking distance from the hotel)



Finance

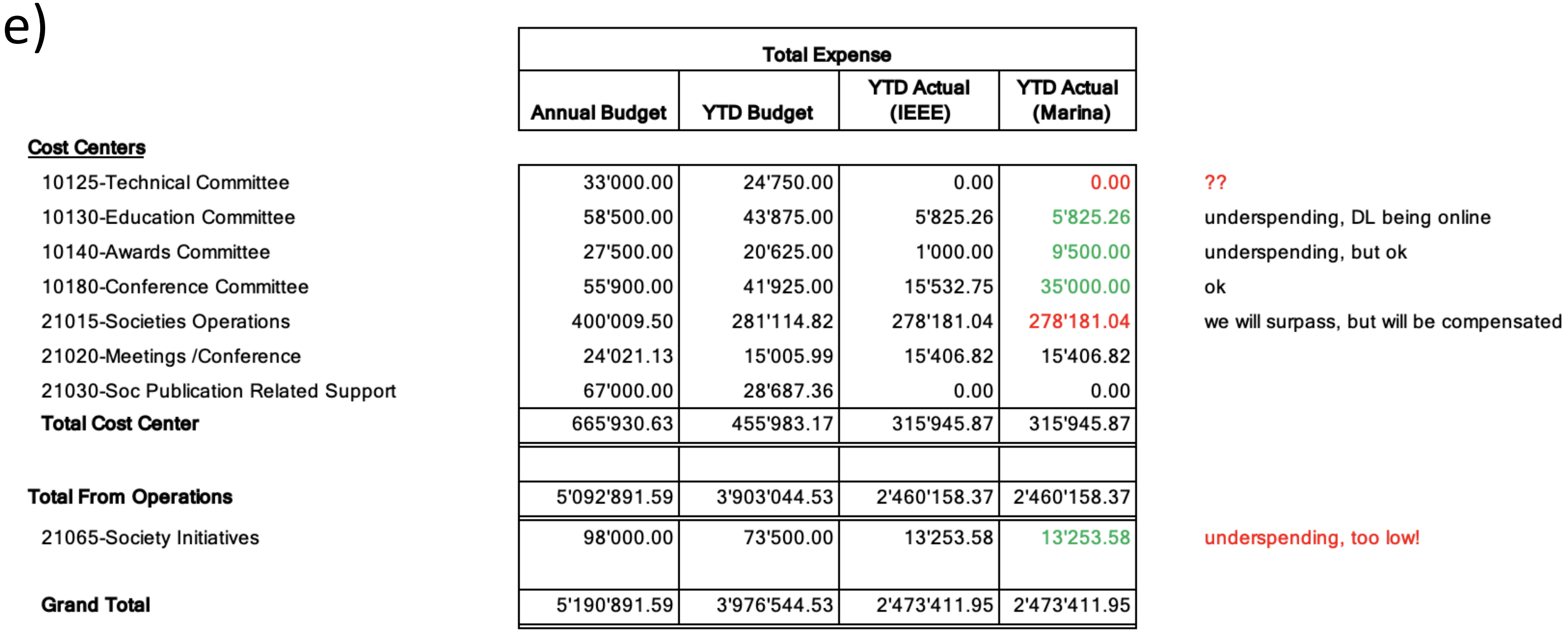
Marina Zapater

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

Finances 2023 Status (Sept.’23)

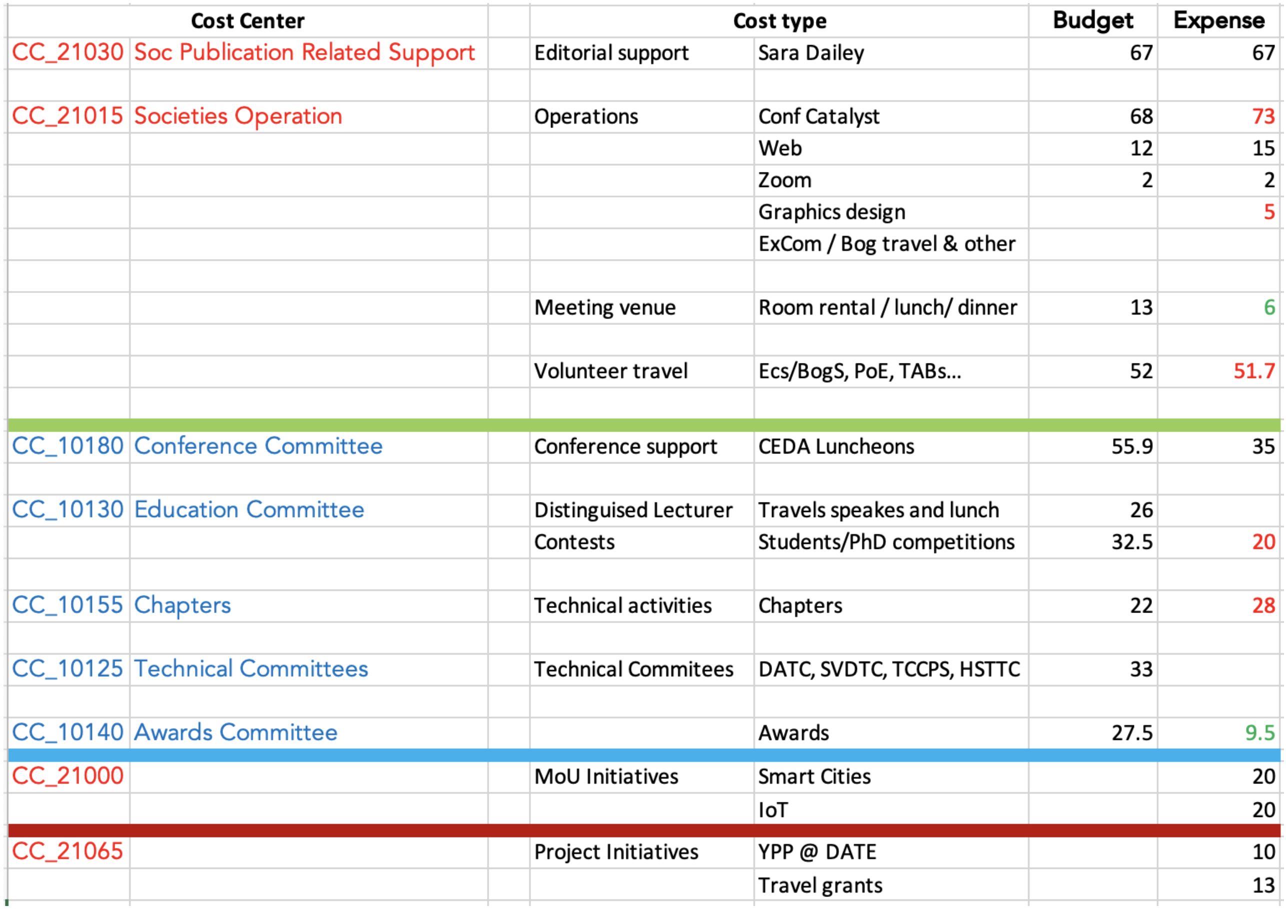
- Same trend than in July: underspending in all categories, except in volunteer travel and contests (will drill-in in next slide)



Cost Centers	Total Expense Annual Budget	YTD Budget	YTD Actual (IEEE)	YTD Actual (Marina)	
10125-Technical Committee	33'000.00	24'750.00	0.00	0.00	??
10130-Education Committee	58'500.00	43'875.00	5'825.26	5'825.26	underspending, DL being online
10140-Awards Committee	27'500.00	20'625.00	1'000.00	9'500.00	underspending, but ok
10180-Conference Committee	55'900.00	41'925.00	15'532.75	35'000.00	ok
21015-Societies Operations	400'009.50	281'114.82	278'181.04	278'181.04	we will surpass, but will be compensated
21020-Meetings /Conference	24'021.13	15'005.99	15'406.82	15'406.82	
21030-Soc Publication Related Support	67'000.00	28'687.36	0.00	0.00	
Total Cost Center	665'930.63	455'983.17	315'945.87	315'945.87	
Total From Operations	5'092'891.59	3'903'044.53	2'460'158.37	2'460'158.37	
21065-Society Initiatives	98'000.00	73'500.00	13'253.58	13'253.58	underspending, too low!
Grand Total	5'190'891.59	3'976'544.53	2'473'411.95	2'473'411.95	

Finances 2023 Status (cost drill-in)

- Volunteer travel high
  - Surpassed, and we're missing ICCAD
  - Compensated by other costs being quite low
- Initiatives being very low
  - Despite travel grants going up



Cost Center		Cost type		Budget	Expense
CC_21030	Soc Publication Related Support	Editorial support	Sara Dailey	67	67
CC_21015	Societies Operation	Operations	Conf Catalyst	68	73
			Web	12	15
			Zoom	2	2
			Graphics design		5
			ExCom / Bog travel & other		
		Meeting venue	Room rental / lunch/ dinner	13	6
		Volunteer travel	Ecs/BogS, PoE, TABs...	52	51.7
CC_10180	Conference Committee	Conference support	CEDA Luncheons	55.9	35
CC_10130	Education Committee	Distinguised Lecturer	Travels speakes and lunch	26	
		Contests	Students/PhD competitions	32.5	20
CC_10155	Chapters	Technical activities	Chapters	22	28
CC_10125	Technical Committees	Technical Commitees	DATC, SVDTC, TCCPS, HSTTC	33	
CC_10140	Awards Committee		Awards	27.5	9.5
CC_21000		MoU Initiatives	Smart Cities		20
			IoT		20
CC_21065		Project Initiatives	YPP @ DATE		10
			Travel grants		13

Initiatives status (2023, as of Sept)

98k approved for 2023	98k		**23k** !!
Student travel grant	30k	→	13k (8k DAC + 5k ICCAD)
YPP at DATE 2023	10k	→	10k
CEDA SS at Smart Cities Conf.	10k	→	0k (cancelled)
CEDA SS at World Forum IoT	10k	→	0k (cancelled)
EDA Summer camps	15k	→	0k
Open-Source EDA	8k	→	0k
Open-Source Impl. of HW Sec. Attacks and Counterm.	15k	→	0k

- Careful! IEEE requires/wants us to budget correctly our costs

Budget 2024 – After first pass submission

- First-pass budget was submitted to IEEE in August with items discussed in July EC/BoG meeting
  - No complains from IEEE so far for all cost centers (except initiatives)

- Submission of many initiatives amounting for 173k
  - 173k greatly exceeds the maximum
  - A grand total of 67.1k approved as of today
    - This corresponds to roughly 3% increase wrt the expected expenses in 2023 (63k)
    - Careful! We need to use that money

Initiatives submitted/approved (2024)

- 173 submitted for 2024 → only 67.1k approved as of today

Student travel grant	30k
YPP at DATE	10K
EDA Special sessions (DATE, DAC, ICCAD, ESWEEK)	40k
SS for Outreach Confs (WF-IoT, ISC2, ECTC)	32k
Open-Source Impl. of HW Sec. Attacks and Counterm.	15k
High-School Summer Camp with Member Societies	30K
CAD Contest@ICCAD	6K
Tiny and Fair ML Design Contest	10K

Other topics for discussion

- Managing invoicing for big conferences events DATE/DAC (e.g. PhD Forum at DAC). Options :
  - Via conference POC (sending invoices), GL code, etc.
    - Advantage: IEEE does not complain, everything goes to right account and cost center
    - Drawback: payment procedure complicated, delays in invoices, etc.
  - Via conference surplus
    - Our lives are easier
    - But… we have an issue with accounting

Other discussion topics

- Conference ”tricky” issues:
  - Physical materials and CB cards
  - Treasurer and conference chair from same institution

- External people claiming expenses via Concur:
  - Careful with hotel receipts → they are mandatory
  - “Post facto” approval of business trips from IEEE TAB → not ok
  - Students claiming “meals with guests” → proposal to change guidelines student travel support manual for claiming costs

Strategy

Enrico Macii

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

Technical Activities

Tsung-Yi Ho

CEDA EC at ICCAD – San Francisco, CA, USA

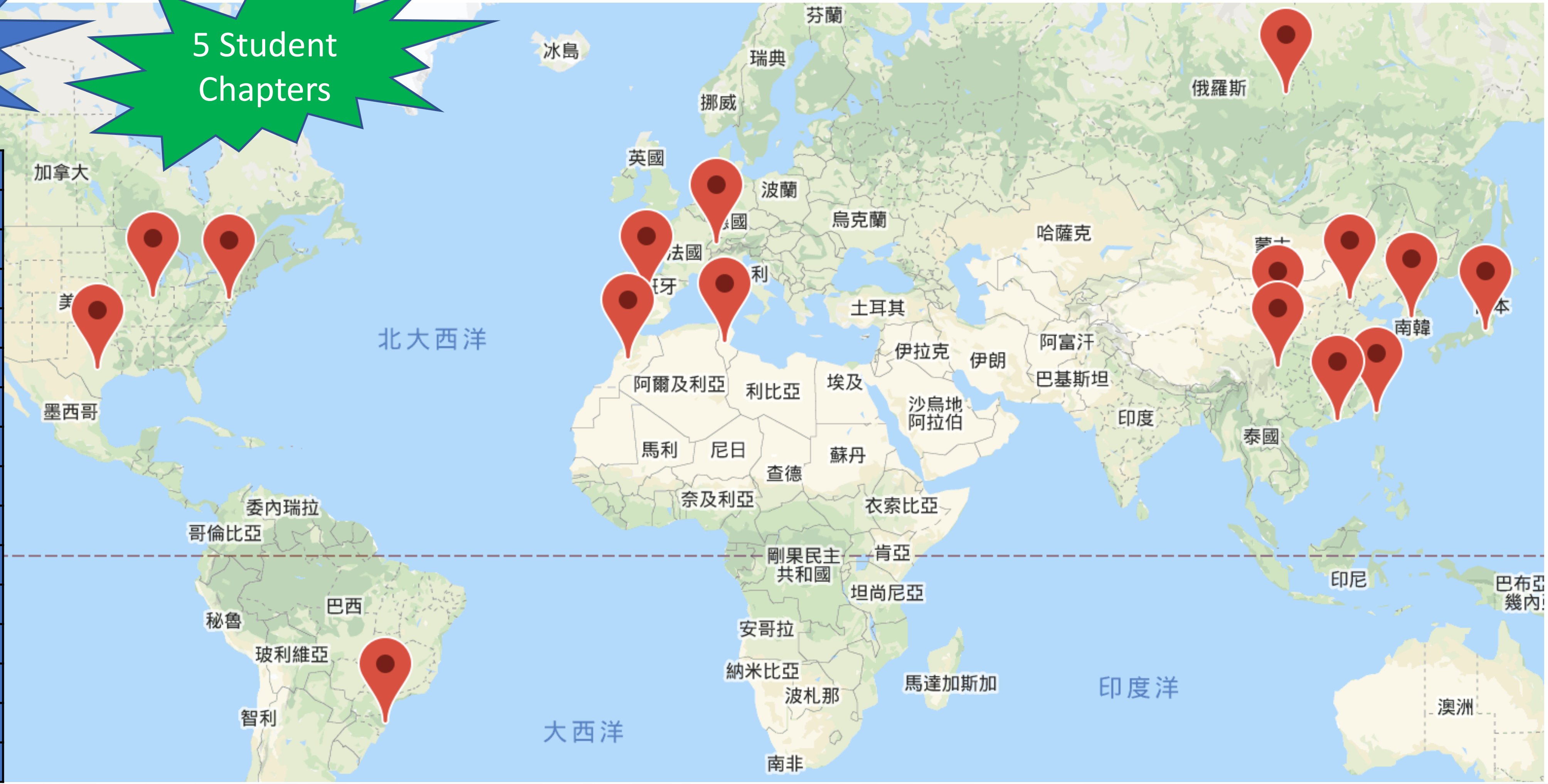
29 October 2023

CEDA Chapters

16 Chapters

5 Student Chapters

Beijing
Central Illinois
Central Texas
Chengdu
Hong Kong
Japan
Montreal
Morocco
Pennsylvania
Seoul
Shanghai
South Brazil
Spain
Switzerland
Taipei
Tunisia



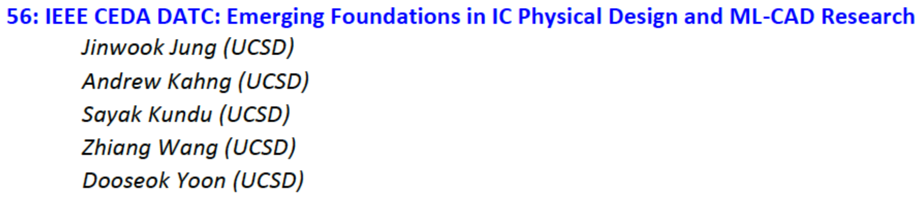
CEDA Chapter Activities

- Chapter Meeting (Dec. 11)
- Activity Planning
  - Support 10 proposals (6 in 2022)
- Call for Initiative (NIC)
- Role Rotation
  - Chair, Vice Chair, Treasurer/Secretary
  - Term of service
- Chapter-of-the-year Award

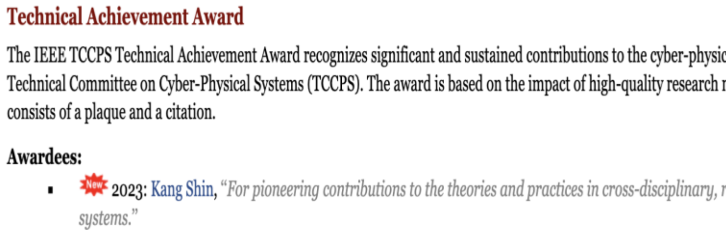
CEDA Technical Committees

- DATC (Design Automation Technical Committee)
  - Chair: Jinwook Jung, IBM
- SVDTC (System Validation and Debug Technology Committee)
  - Chair: Chinna Prudvi, Intel Inc.
- TCCPS (Technical Committee on Cyber-Physical Systems)
  - Chair: Shiyan Hu, University of Southampton
- TTTC (Test Technology Technical Council)
  - Chair: Peilin Song, IBM
- Hardware Security and Trust Technical Committee (HSTTC)
  - Chair: Gang Qu, University of Maryland

- Awards, Tools, Standards, Outreach, etc.


56: IEEE CEDA DATC: Emerging Foundations in IC Physical Design and ML-CAD Research

Jinwook Jung (UCSD)
Andrew Kahng (UCSD)
Sayak Kundu (UCSD)
Zhiang Wang (UCSD)
Dooseok Yoon (UCSD)


Technical Achievement Award

The IEEE TCCPS Technical Achievement Award recognizes significant and sustained contributions to the cyber-physic
Technical Committee on Cyber-Physical Systems (TCCPS). The award is based on the impact of high-quality research r
consists of a plaque and a citation.

Awardees:

- New 2023: Kang Shin, *"For pioneering contributions to the theories and practices in cross-disciplinary, r systems."*

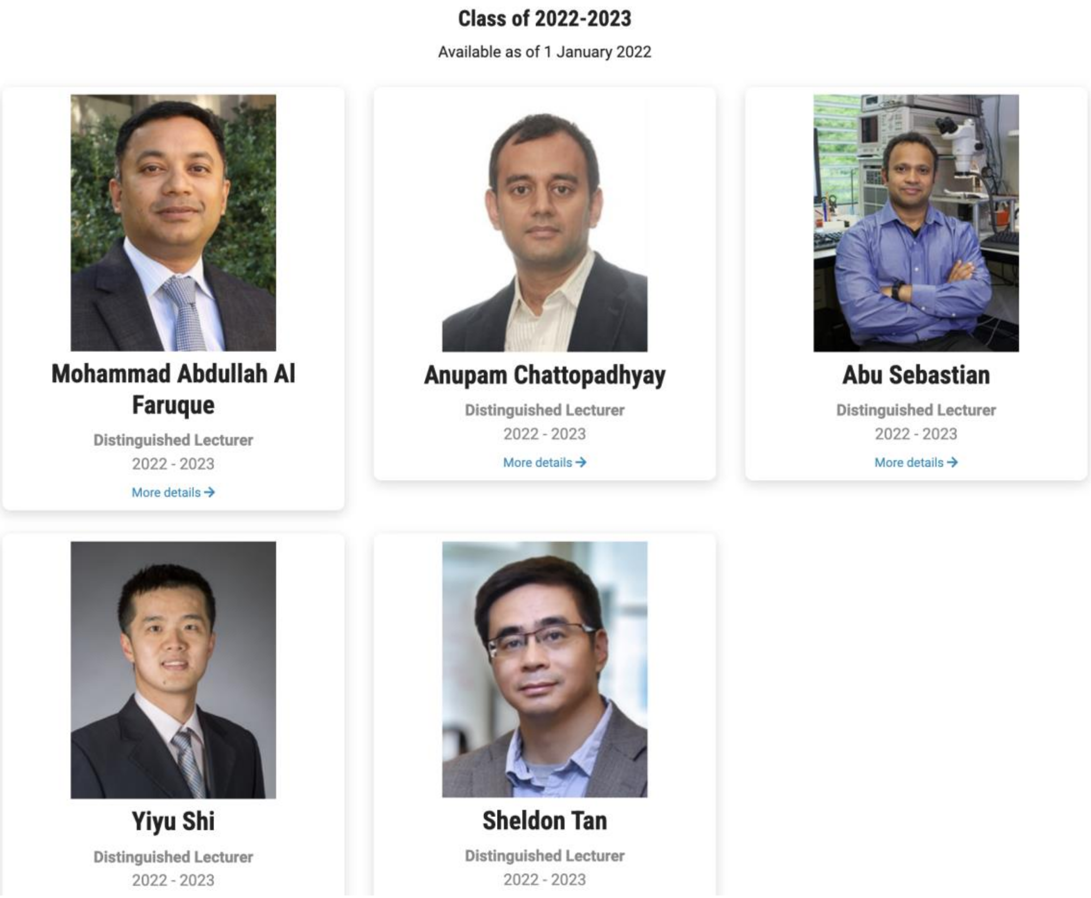
CEDA Luncheon Talk

- DAC 2023
  - Tulika Mitra, NUS
- ICCAD 2023
  - Margaret Martonosi, Princeton
- DATE 2024
  - Anima Anandkumar, Caltech/NVIDIA

Fourier neural operators to efficiently solve partial differential equations (PDEs) on general geometries, demonstrating benefits in computational lithography.

Mind the Gap: Challenges and Opportunities in Closing the Algorithms-to-Devices Gap in Quantum Computing

Distinguished Lecturer Program



Class of 2022-2023

Available as of 1 January 2022

Mohammad Abdullah Al Faruque

Distinguished Lecturer

2022 - 2023

More details →

Anupam Chattopadhyay

Distinguished Lecturer

2022 - 2023

More details →

Abu Sebastian

Distinguished Lecturer

2022 - 2023

More details →

Yiyu Shi

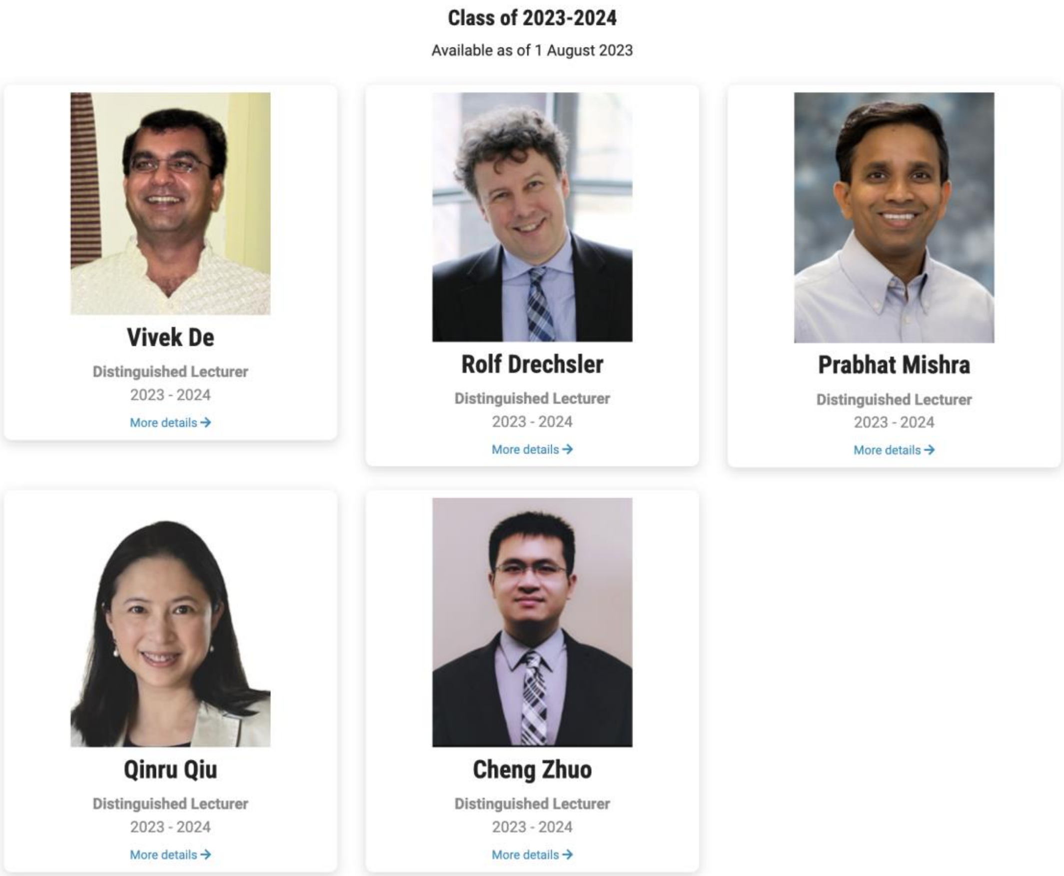
Distinguished Lecturer

2022 - 2023

Sheldon Tan

Distinguished Lecturer

2022 - 2023



Class of 2023-2024

Available as of 1 August 2023

Vivek De

Distinguished Lecturer

2023 - 2024

More details →

Rolf Drechsler

Distinguished Lecturer

2023 - 2024

More details →

Prabhat Mishra

Distinguished Lecturer

2023 - 2024

More details →

Qinru Qiu

Distinguished Lecturer

2023 - 2024

More details →

Cheng Zhuo

Distinguished Lecturer

2023 - 2024

More details →

Member Society Outreach

IEEE EPS and CEDA Joint Panel at IMPACT’23

Young Professionals

Qi Zhu

October 30, 2023

DAC YP Activities

- Early Career Workshop
  - Speakers from NSF, DARPA, PNNL, ORNL, Intel Labs, Synopsys, Nvidia, IBM, Google.
- PhD Forum & University Demonstration
  - Co-located
- All three events were co-sponsored by CEDA and ACM SIGDA. All were very well attended (PhD forum and UD had 500+ people at level 3 lobby of Moscone).

2023 DAC
Early Career Workshop

Co-located with the 60th Design Automation Conference (DAC)

An In-Person Experience, 9:00 AM - 5:00 PM (PST)

July 9th, 2023

Location 3016, Level 3 | Moscone West, San Francisco

Ph.D. Forum at DAC

The Ph.D. Forum at the Design Automation Conference is a poster session hosted by ACM SIGDA and IEEE CEDA for Ph.D. students to present and discuss their dissertation research with people in the EDA community. It has become one of the premier forums for Ph.D. students in design automation to get feedback on their research and for industry to see academic work in progress: hundreds of people attended the last forums. Participation in the forum is competitive with acceptance rate of around 30%. Limited funds will be available for travel assistance, based on financial needs. The forum is open to all members of the design automation community and is free-of-charge. It is co-located with DAC to attract the large DAC audience, but DAC registration is not required in order to attend this event.

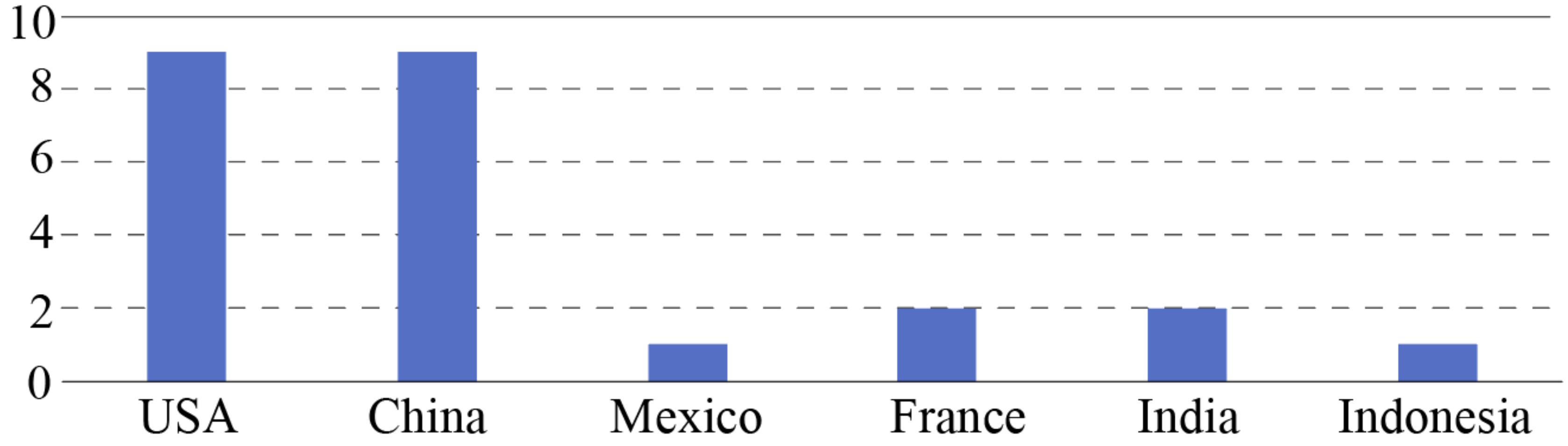
33rd ACM SIGDA/IEEE CEDA University Demonstration

Date: July 10, 2023

Location: Moscone Center West, San Francisco

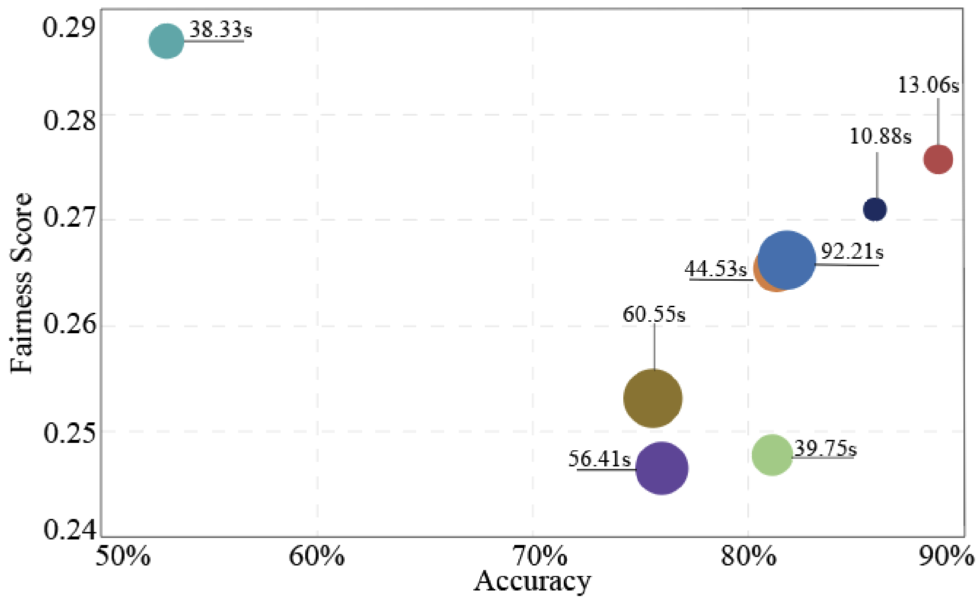
ESWEEK YP Activity -- Fair ML Design Contest

- First edition. 23 Teams from over 20 organizations participated.



ESWEEK YP Activity -- Fair ML Design Contest

- Raspberry Pi 4 development kit as the targeting platform for all teams.
- The top three teams come from Rutgers University, University of Notre Dame, and Sun Yat-sen University.



● 1st Team (0.8616): Rutgers Efficient AI
● 2nd Team (0.8543): Sustainable Computing Laboratory
● 3rd Team (0.7216): Intelligent and Robotic Systems
● 4th Team (0.7188): Team from University at Buffalo SUNY
● 5th Team (0.6693): Trojan Knights
● 6th Team (0.6451): NC State CSC
● 7th Team (0.6313): UESTC
● 8th Team (0.5649): Sichuan University

Initiatives

Ian O’Connor

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

Initiatives portfolio

- represent CEDA in the various IEEE initiatives (and their flagship conferences) in which CEDA has interest:
  - Smart Cities : Theo Theocharides (U. Cyprus, CY)
  - IoT : Theo Theocharides (U. Cyprus, CY)
  - Brain: Jose Ayala (U. Complutense, Madrid, ES)
  - Task Force on Rebooting Computing: Pierre-Emmanuel Gaillardon (U. Utah, US) / I. O'Connor (EC Lyon, FR)
  - Future Networks: I. O'Connor (EC Lyon, FR)

Status of Activity – SC TC

- Smart Cities Technical Community (SC TC)
  - Voting member, partner of SCI
  - Supported decision to act as Pilot for TAB TC2.0
  - Supported International Smart Cities Conference (ISC2) 2022 (Paphos, Cyprus, 26-29 September 2022) – but mixed feedback
  - Decision **not** to organize special session at International Smart Cities Conference (ISC2) 2023 (Bucharest, Romania, 24-27 September 2023)

Status of Activity – IoT TC

- IoT Technical Community (IoT TC)
  - De-facto voting member, major sponsor (not leading sponsor)
  - Participation in steering committee meetings
  - IoT Magazine requests contributions from societies
  - Approved status change to TAB TC2.0
  - Minor updates to MoU (2023-2025)
- WF-IoT 2023 (October)
  - Organization of special session unsuccessful
  - Realignment for WF-IoT 2024 (October)

IEEE
Internet of Things

The 9th IEEE World Forum on the Internet of Things (IoT)

12–27 October 2023 // Aveiro, Portugal

Aveiro Congress Center

Hybrid: In-Person and Virtual

The Blue Planet: A Marriage of Sea and Space

Sponsored by the IEEE IoT Technical Community

Status of Activity – Brain TC

- Brain Technical Community (Brain TC)
  - Following monthly meetings
  - Possible organization of special session in
    - IEEE EMBS Conference on Neural Engineering (April)
    - IEEE Workshop on Brain-Machine Interface Systems (October) [part of SMC 2023 flagship annual conference of the IEEE Systems, Man, and Cybernetics Society]
  - Organization of CEDA-sponsored special session at IEEE EMBS Conference on Neural Engineering 2025

Status of Activity - TFRC

- Task Force on Rebooting Computing (TFRC)
  - Following monthly meetings
  - International Roadmap on Devices and Systems (IRDS) – contribution to Systems Architecture chapter IRDS 2023
  - Organization of special session on Logic Synthesis for Low-Temperature Electronics at ICRC 2022
    - Leon Stok, IBM
    - Mathias Soeken, Microsoft
    - Luca Amaru, Synopsys
    - Low attendance, limited interest

IEEE
rebooting
COMPUTING
Task Force

IRDS
INTERNATIONAL ROADMAP FOR DEVICES AND SYSTEMS™

EDA Summer Camp (with Technical Activities)

- objective - equip high school students with a thorough comprehension and practical expertise concerning the fundamental aspects of contemporary IC design
- online preparatory content (introduction, tutorials, exercises …)
- 1-week face-to-face summer camp - technical courses, labs and team-building exercises at multiple sites (US, Europe, Asia) including daily dialog sessions between sites
- finalization (report submission, jury-awarded prize) and legacy (student mentoring)

Open-Source Roadshow

- Regular tutorial sessions (contests?) at EDA conferences
  - OpenFPGA
  - Open Road
  - RISC-V …
- Target industrial partners: QuickLogic, ZeroAsic …
- CEDA-sponsored prizes

Challenges

- Real and sustained interest from external Initiatives and TCs is rare …

Action Items

- Initiate the co-organization of:
  - Realigned special session at WF-IoT 2024 (October)
  - A special session at IEEE EMBS Conference on Neural Engineering 2025 (April)
- Survey the organization of International Smart Cities Conference
- Move forward on
  - EDA Summer Camp
  - Open Source Roadshow

Conferences

Cristiana Bolchini

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

Current status

January, Asia & South Pacific

March/April, Europe

June/July, USA

5 FLAGSHIP CONFERENCES

October/November, USA

Raleigh, NC, USA

September/October, AoE

improved process for awareness

CEDA is either a financial (co)sponsor, or a technical (co)sponsor

- when MoU request arrives through the IEEE system
  - email to reference person
    - to get information on previous event in terms of attendance
    - to get a person to report at the end of the event **
  - if technical co-sponsorship is requested, verify CEDA's involvement in the event (to avoid sponsoring events CEDA knows nothing about)

Open questions

- MLCAD workshop (IEEE/ACM) wants to move to symposium format
- CODAI sub-event at ESWEEK (IEEE/ACM) wants to part of the MoU signed for ESWEEK and the other sub-events
- Monitor outcome of events we technically sponsored for the first time
  - ISED – India – Dec. 2023
  - ISEDA – China – May 2023

Criticalities

- Frequently sponsorship requests come in quite late w.r.t. 1 year IEEE specifies and it gives us little time to ask for information, involvement (for technical sponsorship), previous year’s event outcome
- IEEE is monitoring a bit more on sponsorship, trying to prevent that events easily obtain technical sponsorship to get their proceedings in the IEEE digital library but there is actually no guarantee of quality (relevant for technical sponsorship)

Publications

Jorg Henkel

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

Report Overview

- Misc
  - TCAD: EiC term extended
  - ESL: 2nd term of EiC ends by 12/2023;
    - Call prepared; selection committee to be finalized
- Status reports:
  - D&T (Partha Pande)
  - TCAD (David Atienza)
  - ESL (Preeti Panda)

IEEE Design&Test Update

EiC: Partha Pande

Design and Test Magazine
Magazine Issues in 2023

- Jan/Feb: Special issue (SI) on Machine Learning (ML) for CAD / EDA; 8 SI papers, 2 general interest papers.
- Mar/Apr: Special issue (SI) on Testability and Dependability of AI Hardware; 7 SI papers, 4general interest papers
- May/June: Special issue (SI) on Approximate Computing: Challenges, Methodologies, Algorithms, and Architectures for Dependable and Secure Systems; 4 SI papers, s general interest papers, interview with Prof. Steve Kang
- Jul/Aug: SI on 2022 VLSI Test Symposium; 6 SI papers, 2 general interest papers
- Sept/Oct: SI on SBCCI 22; 5 SI papers, 5 general interest papers and 1 keynote paper
- Nov/Dec: NOCS 23 (Network-on-Chips), journal first publication mode.

Design and Test Magazine: New Special Issues in Development

- Post-Quantum Cryptography for Internet-of-Things (IoT)
- Silicon Lifecycle Management (SLM)
- 2022 HW-Security Top Picks
- Approximate Test
- Ethics in computing
- Top picks on Test
- Wearable IoT Devices for Reliable Mobile Health Applications

Interviews
(Lead: Nicola Nicolici, McMaster University Canada)

- Janet Olson, Cadence
- Steve Kang, UCSC
- Vishwani Agarwal

Keynote Paper (Lead: Mehdi Tahoori, A-EIC)

- Strange Loops in Design and Technology 59th DAC Keynote Speech (Giovanni De Micheli)

IEEE Design and Test Video Roundtables
D&T Lead: Ramesh Karri, NYU

- A series of quarterly events as D&T zoom-based video roundtables with a focus on *making it lively*.
- Share IEEE D&T roundtable videos via IEEE D&T website
- Each D&T roundtable may include 3 visionaries + moderator. 1-2 visionaries from industry; 1-2 from academia; last for 60 minutes. Q&A type format
- **First Roundtable:**
  - Test vs Trust (Rob Aitken, Janusz Rajski, M. Tehranipoor and S. Mitra; Moderator Ramesh;
- **Future Roundtables**
  - ML for EDA; Moderator Y. Chen or Hai Li.
  - Resurgence of High-Level Design Paradigms: Moderator Luca Carloni; HLS leads from Cadence, Synopsys and Mentor, Jason Cong UCLA

New Test Topics-related initiatives

- Top picks for VLSI Test and Reliability
    - https://people.rennes.inria.fr/Marcello.Traiola/TPTR2023/
- Program Chairs
    - Haralampos Stratigopoulos
    - Jyotika Athavale
- High impact papers
    - Published in last 6 years
- 33 submission received
- PC meeting via zoom on July 27th
- Short list presented at ITC workshop
- Top Picks published in SI

IEEE TPTR

IEEE Top Picks in Test and Reliability
Disneyland, Anaheim, USA
October 12-13, 2023
(co-located with IEEE International Test Conference)
tptr23.tttc-events.org

Co-Chairs
Jyotika Athavale,
President-Elect, IEEE Computer Society, Nvidia (US)
Haralampos-G. Stratigopoulos, Sorbonne Université, CNRS, LIP6 (FR)

IEEE Design & Test Liaison
Mehdi Tahoori, KIT (GE)

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Alberto Bosio, École Centrale de Lyon, INL (FR)
Krish Chakrabarty, Ariona State Univ. (US)
Abhijit Chatterjee, Georgia Institute of Technology (US)
Giorgio Di Natale, Université Grenoble Alpes, CNRS, TIMA (FR)
Sandeep Gupta, Univ. of Southern California (US)
Said Hamdioui, TU Delft (NL)
Sybille Hellebrand, Univ. of Paderborn (GE)
Yiorgos Makris, Univ. of Texas at Dallas (US)
Teresa McLaurin, ARM (US)
Phil Nigh, Broadcom (US)
Alex Orailoglu, Univ. of California San Diego (US)
Ilia Polian, Univ. of Stuttgart (GE)
Adit Singh, Auburn Univ. (US)
Peilin Song, IBM (US)
Matteo Sonza Reorda, Politecnico di Torino (IT)
Stephen Sunter, Siemens (CA)
Li-C Wang, Univ. California Santa Barbara (US)
Hans-Joachim Wunderlich, Univ. of Stuttgart (GE)
Yervant Zorian, Synopsys (US)

Web Chair
Marcello Traiola, Inria, IRISA (FR)

Publicity Chair
Nicolò Bellarmino, Politecnico di Torino (IT)

Call for Contributions

"Top Picks in VLSI Test and Reliability" is a workshop that collects and presents the most impactful publications in the past 6 years in the areas of VLSI test and reliability.

For this first inaugural edition of the workshop, all articles in conferences and journals published from 2017 until the submission deadline are eligible.

We accept self-nominations by authors in the form of a 2-page letter. On the first page, the authors should summarize the key ideas and contributions of the publication, and, on a second page, the description of the influence on ongoing research in the field and the potential of making a positive impact for the long term in the microelectronics industry.

Submitted publications will be reviewed by a committee of renowned experts in the field and will be shortlisted. An author of each shortlisted publication is required to attend the workshop in-person to present the publication, showcasing its influence and impact. The same committee (or a subset of it) will be also present at the workshop to select a final list of Top Picks which will be then invited for submission to an *IEEE Design & Test* special issue. The submission should not repeat or reword the original publication. It should be an extended version with new material. Alternatively it can be a de novo review or tutorial article on the general topic of the original publication. It may have an author list that is different compared to the original publication.

Link to the submission website: https://easychair.org/conferences/?conf=tptr2023

The Workshop will take place in conjunction with the 2023 IEEE International Test Conference.

Key dates:
Submission of 2-page letter: ~~June 15th, 2023~~ **June 29th, 2023**
Notification of acceptance: ~~July 15th, 2023~~ **July 28th, 2023**

Further Information:

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Sorbonne Université, CNRS, LIP6, France
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IEEE TCAD Update

EiC: David Atienza

Key outcomes after almost two years of service

1. Consolidating acceptance rates, **submissions growing a lot** (Jan to Sep 2023)
   - Increase of **27%** in the number of submissions (mainly from Asia) vs. same period in 2022
     - Manuscripts Received YTD: **890**: 552 original, 338 revised
       (Papers submitted with prior conf. papers: **258**)
     - Average decision time (1st revision): **61** days
     - Average final decision time: **83** days until September 2023
   - Accept Ratio: YTD is **38%** so far, it was **40.5%** in 2022, 2021 was **46.9%**
   - Oldest manuscript without decision: **140** days (it was **203** days in 2021)

2. Optimized TCAD review process and publication timeline with IEEE HQ
   - Fast desk-reject policy of IEEE implemented (**fast reject: 1-2 weeks, for low-quality papers**)
   - Current backlog/publication delay: from 12 months to 9 months (to be removed completely in first three months of 2024 completely as agreed with IEEE HQ: **more pages for TCAD**)

Key points to move forward (1/2)

1. Editorial board to be renewed in 2024, already started…
    - Limit of two terms (2 x 2 years) based on IEEE guidelines
    - Increasing diversity (Region 10 – Asia and Pacific) and more industrial affiliated AEs.
    - Editors-at-Large renewed - 50% women and 2 members to be replaced

2. Adapt to the increase number of submissions and larger scope (e.g., AI/ML)
    - Heavy load on Editorial Board, it will need to be enlarged due to increase in submissions!
    - Very hard to get expert reviewers, **list is decreasing and existing ones not responding**

3. Expanding nominations for IEEE TCAD Donald O. Pederson Best Paper Award
    - Authors-based and AE-nominated papers in Manuscript Central very small pool (**5 in 2022**)
    - EiC added auto-nominated papers based on multiple criteria: **Little diversity in topics and regions** (e.g., US-based papers, and in AI-related almost all of them).

Key points to move forward (2/2): To discuss

- New IEEE journals being proposed on AI/ML side
    - Danger with IEEE Journals "taking over" TCAD scope: IEEE Transactions on Circuits and Systems for Artificial Intelligence (TCASAI) – **approx. 35% papers of TCAD will dissapear, is there any agreement with CEDA so far done?**

- Pursue stronger links with top conferences within TCAD's core technical areas: >25% of new TCAD submissions are papers with a previous conf. publication!
    - Shall we explore (with the help of CEDA) how to use the example of ESWEEK with ICCAD or other top conferences? (publish their top articles directly -> already complete ideas).

- Ways to "reward" the reviewers, ideas from the TCAD Editorial Board
    - Offer one free page in TCAD published paper after 3 completed review processes
    - Offer conference registration discounts (e.g., at DATE, DAC, etc.) covered by CEDA

IEEE ESL Update

EiC: Preeti Panda

Editorial Board Composition (2022-23)

Editor-in-Chief

Preeti Ranjan Panda, IIT Delhi

Deputy Editor-in-Chief

Aviral Shrivastava, Arizona State University

Associate Editors

Hiroyuki Tomiyama
Ritsumeikan Univ

Partha S. Roop
Univ of Auckland

Jingtong Hu
Univ of Pittsburgh

Takuya Azumi
Saitama Univ

Akash Kumar
TU Dresden

Partha Pratim Pande
Washington State Univ

Srinivas Katkoori
Univ of South Florida

Soontae Kim
KAIST

Ramesh Karri
New York Univ

Ganapati Bhat
Washington State Univ

Swaroop Ghosh
Penn State Univ

Annelie Heuser
CNRS

Ozgur Sinanoglu
NYU Abu Dhabi

Francesca Palumbo
Univ of Sassari

Dip Goswami
Eindhoven Univ of Tech

Anupam Chattopadhyay
Nanyang Tech. Univ

Catherine Gebotys
Univ of Waterloo

Donatella Sciuto
Politecnico Di Milano

Rasit Topaloglu
IBM

Jingwen Leng
Shanghai Jiaotong Univ

Luciana De Micco
UNMDP

Reiley Jeyapaul
ARM

Aritra Hazra
IIT Kharagpur

John Jose
IIT Guwahati

Priyadarshini Panda
Yale Univ

Debayan Roy
Huawei

Ruben Salvador
CentraleSupelec

Namita Sharma
Intel

Amit Singh
Univ of Essex

Mirjana Stojilovic
EPFL

Mengying Zhao
Shandong Univ

Alfredo Arnaud
Univ Católica del Uruguay

ESL Editorial Board Geographical Distribution

USA: 26%
Europe+: 29%
Asia/Pac: 29%
LatAm: 6%

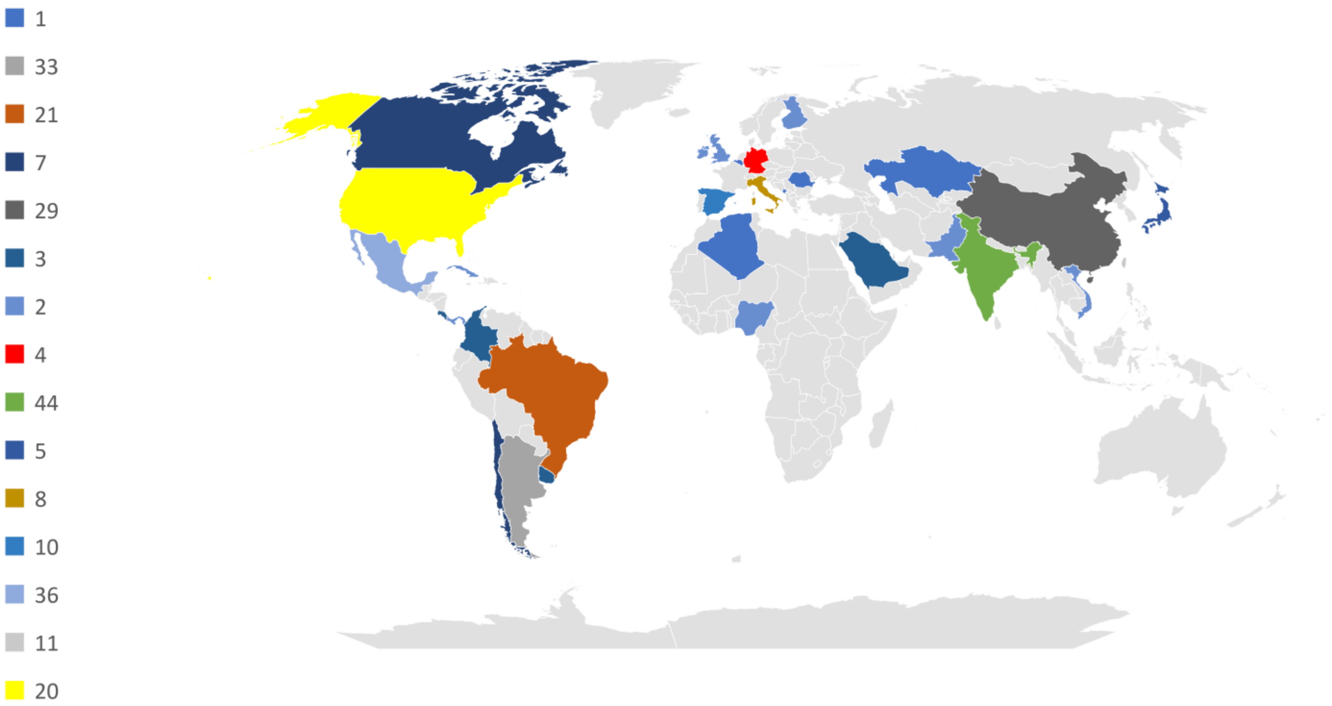
Male: 76%
Female: 24%

Academic: 85%
Industry: 12%
Govt. Lab: 3%

Submission Statistics (2019-23)

- Original Submissions:
  - **[2023: 288 (01 Jan-27 Oct)**]
    [2022: 283]
    [2021: 190]
    [2020: 184]
    [2019: 152]
  - Recent increases because of:
    - Latin America Special Issue
    - ESWeek Special Issue
    - SeHAS workshop tie-up
- Accepted:
  - **[2023: 70 (23%)]**
    [2022: 69]
    [2021: 40]
    [2020: 49]
    [2019: 39]

ESL Submissions by Country (2022)



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Special Issues

- Special Issue on Trends in Embedded Mechatronic Systems for Smart Manufacturing
  - Completed 2021, Status: Published
  - Guest Editors: Muhammad Attique Khan (HITEC University, Pakistan), Ammar Armghan (Jouf University, KSA), Seifedine Kadry (Noroff University College, Norway)
- Special Issues on Latest Advances in Embedded Systems Research in Latin America
  - Completed 2022, Status: Published
  - Completed 2023, Status: Early Access
  - Guest Editors 2023: Maximiliano Antonelli (UNMDP, Argentina), Maria Liz Crespo (ICTP, Italy), Luciana De Micco (UNMDP, Argentina), Carlos Meza Benavides (Hochschule Anhalt and Inst.Tecnológico de Costa Rica), Rosa Maria Woo Garcia (Universidad Veracruzana, Mexico)
  - Approved for 2024 also
- Special Issue on Embedded Systems Week (ESWeek)
  - Completed 2023, Status: Early Access
- **15 Special Issue Proposals submitted in 2023 alone so far**
  - Evaluated by team of senior AEs, led by Deputy-EIC (Aviral Shrivastava)

Conference/Workshop Tie-ups

- **NEW**: Embedded Systems Week (ESWeek)
  - Accepted Late Breaking submissions (4 page) to appear in ESL
- Argentine Conference on Embedded Systems (CASE)
  - Accepted papers appear as Special Issues (Completed for 2022, 2023. Annual feature now.)
- **NEW**: Secure Hardware, Architectures, and Operating Systems (SeHAS)
  - Accepted ESL papers in Embedded Systems Security area to be invited for presentation at SeHAS

Awards

Georges Gielen

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

Standards

Aparna Dey

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

Standards Overview

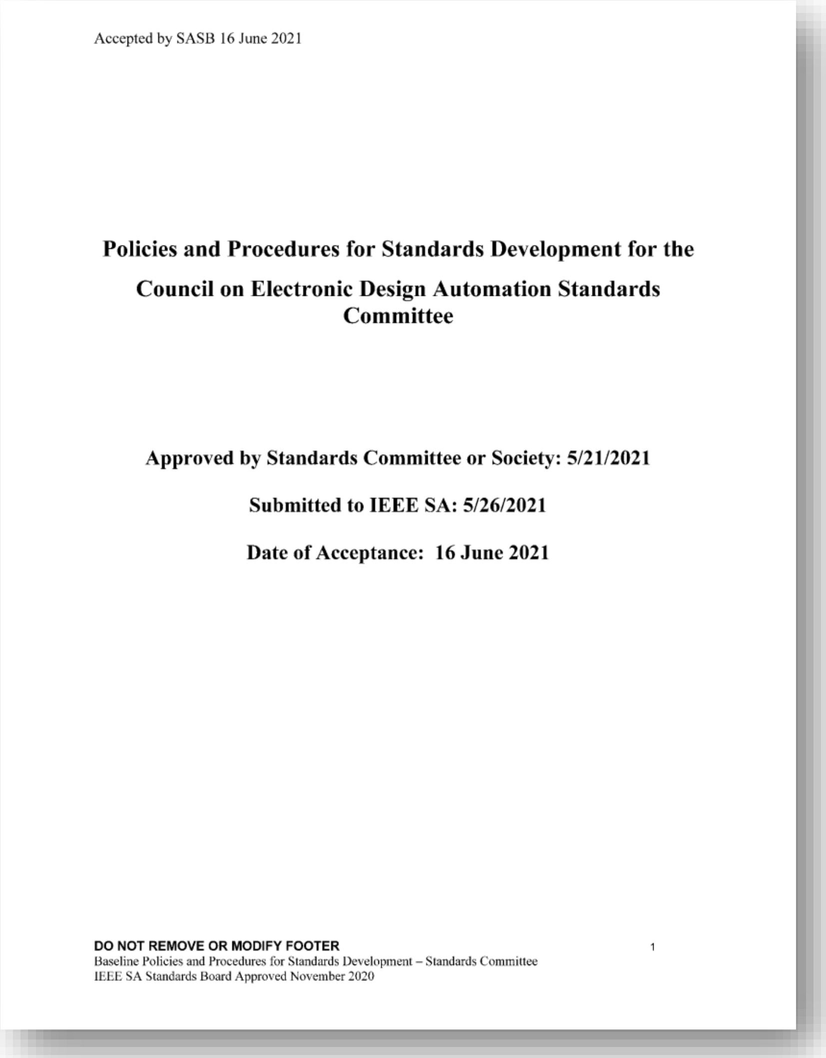
- Mission /Objective
- Current Status & Achievements
- Challenges /Opportunities
- Action Items
- Questions

Mission /Objectives

- Drive Standardization in advanced EDA topics with focus on "research-based topics"
  - Proposals from Academia, and Industry Adv. Research groups
  - Collaborate/ Joint sponsor w/ IEEE DASC & other Industry Standards organizations/committees
  - Leverage CEDA Events/Network/CEDA Standards site

Current Status & Achievements

- CEDA SC Leadership - meeting Quarterly
  - F2F Officers meeting at Cadence, San Jose -10/20/23
  - Aparna Dey, chair (CEDA- VP Standards), Dennis Brophy (Vice-chair) Yatin Trivedi (Secretary)
- CEDA Standards Committee Kickoff meeting
  - Officers planning meeting, preparing agenda & areas of Standardization, invite an outside presenter
  - Increased membership through new CEDA Standards site – 20+ new members (Top EDA companies, Univ, User companies)
  - Kickoff meeting planning mid-November @ Cadence, San Jose,
  - Membership drive – Discussion w/ Academic networks, Present to various CEDA Chapters – pending
- CEDA (CEDA SC) infrastructure – completed
  - CEDA SC public and Collab site - done
  - Mission Statement/ Objectives/P&P – done



Accepted by SASB 16 June 2021

Policies and Procedures for Standards Development for the

Council on Electronic Design Automation Standards Committee

Approved by Standards Committee or Society: 5/21/2021

Submitted to IEEE SA: 5/26/2021

Date of Acceptance: 16 June 2021

DO NOT REMOVE OR MODIFY FOOTER
Baseline Policies and Procedures for Standards Development – Standards Committee
IEEE SA Standards Board Approved November 2020
1

Current Status & Achievements (2)

- CEDA Standards Committee infrastructure active/updated
  - https://ieee-sa.imeetcentral.com/ceda-sc/home
  - CEDA SC public site : https://sagroups.ieee.org/ceda-sc/
- 23 new members. 3 EDA companies, User companies –Intel, Qualcomm, Ericsson, 3 Universities, e.t.c
- Planning Standards Kickoff meeting (~9/12/23) - critical mass and interest.
  - Agenda, Invitation to participate, Request for proposal for PAR or study group in key EDA areas
- CEDA SC Open-Source Maintainer
  - Discuss possible use of SA Open-Source platform for standard development
  - Dennis Brophy

TO THE IEEE COUNCIL ON ELECTRONIC DESIGN
N STANDARDS COMMITTEE(CEDA-SC)

ittee shall be involved in developing Electronic Design Automation and
dards and will be responsible for the implementation of the IEEE Standards
ing to develop such standards, will work with established bodies in a

nd Procedures – 2021

WG OFFICERS

Chair
Aparna Dey, aparna@cadence.com

Vice Chair
Dennis Brophy, dennis.brophy@sie

Secretary
Yatin Trivedi, ytrivedi@ieee.org

Program Manager
Vanessa Lalitte, v.lalitte@ieee.org

Challenges/Opportunities

- Increasing relevant membership/participation from Academia and Industry
  - Promotion of Kickoff meeting with Agenda – tentatively mid November 2023
  - Regular meeting schedule after kickoff meeting
  - Define scope and encourage study groups/white papers in new areas – creating a research focus short list

- Increasing CEDA/SC visibility with Industry & Academia
  - Present at Academic Network meetings
  - Promotions online and with other committees, industry events

- Attracting differentiated Standardization proposals/ study group in advanced topics
  - Supporting valid differentiated proposals from current members
  - Potential for joint sponsorship with DASC and IEEE Standards Committee

Action Items

- Standards Committee kick-off meeting ~11/17/23
- Work w/ other IEEE SC and leverage Academic Networks
- Keep CEDA/SC infrastructure sites current – update
- Increase Membership/ Call for participation drive
  - Present CEDA/SC Mission @ CEDA Chapter meetings/events
- Follow up on adoption of IEEE SA Open platform
- Follow up on AMS and potential language Standards

Current Published DASC Standards

IEEE Standard	Approve	Voting Method	IEC Dual Logo
1076 VHDL	2019	Individual	D
1076.1 (VHDL AMS)	2017	Individual	D
1481 (OLA	2019	Individual	D
1647 (e language)	2019	Individual	
1666 (SystemC)	2023	Entity	
1666.1 (SystemC AMS)	2016	Entity	D
1685 (IP-XACT)	2014	Entity	D
1734 (Quality IP)	2011	Entity	D
1735 (IP Encryption)	2015	Entity	
1800 (SystemVerilog)	2017	Entity	D
1800.2 (UVM)	2020	Entity	D
1801 (UPF)	2018	Entity	D
2401 (LSI Package Board)	2019	Entity	D
2416 (System Level Power)	2019	Entity	
2804 (SHIM)	2019	Entity	D

DASC Standards Transferred

IEEE PAR	PAR Approved	Transfer Approved
P2851 (Functional Safety)	2019	2021

DASC Standards Begin Revised

IEEE PAR	PAR Approved	Ballot Expected
P1666 (SystemC)	2018	2023
P1735 (IP encryption)	2018	2023
P1800 (SystemVerilog)	2019	2023
P1801 (UPF)	2018	~2023

New DASC Standards

IEEE PAR	PAR Approved	Ballot Expected
P3164 (SA EDI*)	2022	2024

***S**ecurity **A**nnotation for **E**lectronic **D**esign **I**ntegration.

Scope:

This standard addresses security concerns of electrical designs that are integrated into other circuits. The standard defines a methodology that:

(1) identifies elements, such as input or output ports, that can influence the behavior of a critical section within the design, and
(2) associates known security weaknesses based on the type of design and/or critical section.

Questions?

Publicity

Agnieszka Dubaj

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

Nominations and Appointments

Yao-Wen Chang

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

Brainstorming and Action Items

All

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

Admin Update

Amanda Osborn

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023

2024 Meeting Schedule

January 26

February 23

March 24 @ DATE

April 26

May 24

June 23 @DAC (EC/BoG)

July 19

August 16

September 20

October TBD @ICCAD

dates not available

November/December TBD

TAB is 11/20-11/23

US Thanksgiving is 11/28-11/29

Hold December 8?

New Hire

Laura Paul will start on November 27.

About Laura:
Laura graduated from Florida State University with a B.S. in Recreation, Tourism, and Events and a Graduate Certificate in Event Management. Laura has held roles in office management, event and VIP support for music festivals and concerts, and work in the academic admissions space.

Old/New Business

All

CEDA EC at ICCAD – San Francisco, CA, USA

29 October 2023