SSCS Membership Delivers:

- Networking with Peers
- Educational Development
- Leadership Opportunities
- Recognition of Achievement
- International Conferences
- Publications
- Student Programs

JOIN US! Visit www.sscs.ieee.org
SSCS Membership Delivers:

• Networking with Peers
• Educational Development
• Leadership Opportunities
• Recognition of Achievement
• International Conferences
• Publications
• Student Programs

Club SSCS
SSCS Membership Delivers:
- Networking with Peers
- Educational Development
- Leadership Opportunities
- Recognition of Achievement
- International Conferences
- Publications
- Student Programs

- Club SSCS
- Dream BiG
SSCS Membership Delivers:

- Networking with Peers
- Educational Development
- Leadership Opportunities
- Recognition of Achievement
- International Conferences
- Publications
- Student Programs

- Club SSCS
- Dream BiG
- Commitment and Reward
University of Niš ED/SSC Student Branch Chapter

Sandra Veljković, Danijel Danković, Vojkan Davidović, Miloš Marjanović, Nikola Mitrović

University of Niš, Faculty of Electronic Engineering – FEE UNI
Who we are

IEEE

R1-R7, R9, R10

R8

Serbia and Montenegro (One of 70 sections)

Chapters

Computer Science

Computation and Intelligence

Electron Devices/Solid-State Circuits

Wireless

Microwave Theory and Techniques Society

IEEE Women in Engineering - Affinity Group

Student Branch

Belgrade

Niš

Novi Sad

Podgorica

University of Niš ED/SSC Student Branch Chapter

Danijel Danković
Joint Chapter Chair
Electron Devices/Solid-State Circuits

Vojkan Davidović
Treasurer
Student Branch

Miloš Marjanović
Joint Chapter Chair/Secretary

Nikola Mitrović
Secretary
University of Niš ED/SSC Student Branch Chapter

Sandra Veljković
Joint Chapter Chair
University of Niš ED/SSC Student Branch Chapter

SSCS Chapters Webinar: Inspiring and Developing Tomorrow’s Circuit Stars
STEM Projects

STEM visits IEEESTEC conference
- 10 online/10 live workshops
- 6 schools (3 different cities)
- 100-120 high school students
- 15 papers for IEEESTEC Conference

Let STEM visit again IEEESTEC
- Coming soon!!!

<table>
<thead>
<tr>
<th>Program Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection of schools and students</td>
</tr>
<tr>
<td>Entrance survey of students</td>
</tr>
<tr>
<td>Basic course - Practical application of electronic devices</td>
</tr>
<tr>
<td>Post basic course survey</td>
</tr>
<tr>
<td>Advanced course – Arduino IoT projects</td>
</tr>
<tr>
<td>Post Arduino course survey</td>
</tr>
<tr>
<td>First objective</td>
</tr>
<tr>
<td>Workshop - From idea to realization</td>
</tr>
<tr>
<td>Workshop - How to write a paper for a conference</td>
</tr>
<tr>
<td>Post workshops survey</td>
</tr>
<tr>
<td>Second objective</td>
</tr>
<tr>
<td>Preparation of papers for the IEEESTEC conference</td>
</tr>
<tr>
<td>Making 3D prints for realized prototypes</td>
</tr>
<tr>
<td>IEEESTEC conference and Competition for students</td>
</tr>
<tr>
<td>Third objective</td>
</tr>
<tr>
<td>Final surveys and report</td>
</tr>
</tbody>
</table>

SSCS Chapters Webinar: Inspiring and Developing Tomorrow's Circuit Stars
Cooperation with...

Faculty of Electronic Engineering, University of Niš
Ministry of Education, Science and Technological Development
Serbian Academy of Sciences and Arts
Electrical Engineering STudents' European assoCiation (EESTEC) Local Committee Niš
Centers for the Promotion of Science
Institute for the Advancement of Education and Upbringing
Regional Centers for Professional Development of Employees in Education
Science Clubs Leskovac, Niš...
High schools/grammars schools from whole Serbia

SSCS Chapters Webinar: Inspiring and Developing Tomorrow's Circuit Stars
Place where ideas are born – Student Creative Center of FEE UNI

SSCS Chapters Webinar: Inspiring and Developing Tomorrow’s Circuit Stars
Just in the past two months...

Galaksija Cup

Competition based on Arduino platform

SSCS Chapters Webinar: Inspiring and Developing Tomorrow's Circuit Stars
Workshops with professors and students from ETŠ "Mija Stanimirović"

Equipment obtained by IEEE EDS-ETC Program

SSCS Chapters Webinar: Inspiring and Developing Tomorrow's Circuit Stars
Workshops with students from the grammar school "Bora Stanković"
Workshops with students from the grammar school "Svetozar Markovic"

SSCS Chapters Webinar: Inspiring and Developing Tomorrow's Circuit Stars
Workshop and lectures for seminar participants in Petnica Science Center

SSCS Chapters Webinar: Inspiring and Developing Tomorrow's Circuit Stars
Work continued with high school students from Nis and Leskovac
The final round of the quiz for high school students

SSCS Chapters Webinar: Inspiring and Developing Tomorrow's Circuit Stars
IEEESTEC-International Students' Projects Conference

A story that has been going on for 15 years...

- 80-100 papers
- 30 institutions

Organizers

SSCS Chapters Webinar: Inspiring and Developing Tomorrow's Circuit Stars
SSCS Chapters Webinar: Inspiring and Developing Tomorrow's Circuit Stars
Chapter of the Year Award

Chapter of the Year Award Committee

The EDS Chapter of the Year Award is given each year based on the quantity and quality of the activities and programs implemented by the chapters during the prior July 1st – June 30th period. Chapters, please be sure to submit your reports to IEEE: IEEE Xplore - Chapter Activity Report (EDS Chapters & Student Branch Chapters)

EDS recently revised our Chapter of the Year Award to award one non-student chapter and one student chapter in any geographic location.

Nominations for the awards can only be made by Regions/chapters Committee members, SRC Chairs/Vice-Chairs, or self-nominated by Chapter Chairs. Please submit your nomination form by September 15th.

Each winning chapter will receive a plaque and check for $500 to be presented at an EDS Conference or Chapter Meeting. Travel reimbursement will not be provided. A Chapter that has previously received the Chapter of the Year Award is eligible for re-nomination only after three years from the year of the award.

2018

Regions 1-7 - ED/CAS North Jersey Chapter
Region 8 - ED/SSC University of Nis Student Branch Chapter
Region 9 - ED/RA Tunja Chapter
Region 10 - ED Malaysia Chapter

SSCS Chapters Webinar: Inspiring and Developing Tomorrow's Circuit Stars
Thank You for Your Attention!

University of Niš
Faculty of Electronic Engineering

IEEE
Electron Devices Society
SSCS
IEEE
eeStec
SSCS Tunisia Chapter

Officers - VOLUNTEERS

▸ Chapter Chair: *Brahim Mezghani*
  - Professor at the Dept of EE in the Nat Eng School of Sfax (ENIS), Tunisia
  - PhD’2008 and HDR’2014 in µElec, from the ENIS
  - MSc’1990 in µElec and BSc’1988 in EE, from the UMN, Minneapolis, USA

▸ Chapter Vice-Chair: *Amel Neifar* (Res Cent µelect & Nanotech, Sousse)

▸ Chapter Secretary: *Hatem Trabelsi* (Prof, Dept. of EE, ENIS)

▸ Chapter Treasurer: *Chokri Rekik* (Prof, Dept. of EE, ENIS)

▸ Representative, Junior Ambassador: *Sinda Aloui* (AP, EE, ENIS)
Junior events

Why?

- To stimulate the **interest** of very young and pre-university students
- An opportunity for very young students to discover ICs
- Leave an unforgettable impression as if we plant in them a **seed of interest** in microelectronics
EN’JUNIOR 1.0 mainly consisted of organizing a visit and a guided tour to discover various on-going student activities in the ENIS.

The Chapter Junior Ambassador, Sinda Aloui, invited 40 students from two primary schools to participate in the 1st edition of EN’JUNIOR.

Thank you, my dear CEE students!
Junior & preschool events

Why?

▸ To stimulate the interest of very young and pre-university students in electrical engineering related topics and specifically those which use integrated circuits

▸ An opportunity for very young students to discover, for the first time, what's behind new technologies and breathtaking consumer applications, in particular those related to the nowadays well-known ones among young generation, which include Robots, CubeSats, and smart systems used in IoT.

Welcoming young students when they arrive to the ENIS and rising the Tunisian flag together with the National Anthem
Welcoming and registration of the young students by the students of the Club of Electrical Engineers (CEE) of the ENIS.
The young student extremely happy with his first ever registration procedure for his first ever event.
Young students, teachers, parents, and EE students are in the auditorium for the opening ceremony of the EN’JUNIOR event.
EE student explaining the visit program. Prof & guests are in the auditorium for the opening ceremony of the EN’JUNIOR event.
Participants are having a short break after the opening ceremony and before proceeding to the guided visit of the ENIS.
EE student explaining details and mode of operation of each part of their project of a homemade robot.
EE student showing various required electronic circuitry which they used in their project of a homemade robot.
2nd year EE student showing and explaining parts of the electronic circuitry they developed for their project of a homemade car.
Medals were also offered to the young students. These have been provided as a gift from our institution’s Director Prof. Slim Abdelkafi.
Future junior events

2SCS JR
Junior events

2SCS JR 1.0

▸ The name will be used for all future junior events organized by the SSCS Tunisia Chapter

▸ The organization of the 1st edition of the 2SCS JR is planned on August 30th, as a part of a summer LeadCamp for high schoolers

▸ Planned activities during the 2SCS JR 1.0 include the study of the generally employed ICs in various electronic boards
During a previous LeadCamp edition, the students are testing one of the homemade smart-cities.
Junior events

2SCS JR 2.0

- Organization of the 2nd edition of 2SCS JR event, during next fall
- It is intended for pre-university laureate students
- The first 5 students from the 6th year and 7th (final) year from several high schools in the region will be identified and invited to participate in the unforgettable event 2SCS JR 2.0
- For best possible experience, we plan on forming small groups for parallel guided tours
Advice to other Chapters

Steps to organize junior events

▸ At your own Institution, you should contact the:
  - Director to ask for permission
  - EE Department or the others to use their Labs or infrastructure
  - Student’s clubs including the IEEE ones

▸ At the primary school, or high school, you should contact the:
  - Director to ask for permission
  - Teachers who will help to identify the young student participants

▸ Discuss and choose a ‘good’ day for the event organization

▸ You should prepare what you’re planning on showing and giving to students to make it the most memorable visit of their lives
Advice to IEEE Volunteers

Working WITH and FOR juniors

- In addition to IEEE benefits, you add your personal satisfaction.
- Volunteering is giving without waiting to get something back.
- When dealing with junior folks, you should know that the volunteering work you’re doing impacts your own personal life!
- If you have this conviction your words will have a huge impact on the young students.
- This would help in getting their attention, increasing the impact of whatever you’re planning on doing WITH them and FOR them.
Filling the EE/ECE pipeline

Tony Mauro
June 2022
Tony Mauro - Background

• BS/MSEE degrees from Cal Polytechnic University and USC
• Industry experience: 1993-2015 at Qualcomm
  – Digital Hardware designer, DSP Multimedia, Security
  – Registered Patent Agent
  – Founded NexStream Tech Education in 2020
• Teaching experience: 2008 - present at Canyon Crest Academy, San Diego, CA
  – Electronics circuit design, Computer Science
• Interests
  – Work-based learning models for secondary schools
  – Technical: HDL’s, Machine Learning, Neuroscience
• Contacts: LinkedIn, NexStream, tony.mauro@sduhsd.net
Challenge - how to fill the ‘front-end’ of the EE/ECE pipeline

- Engaging students in a high school electronics courses
- Interactions (from a high-school teacher’s perspective)
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 (state machines)
  - High-level description language (Verilog)
High School Student Engagement

What works and what doesn’t

• Provide connections to market - what is used where?
  – Analog: Radio (filters), AC-DC conversion (rectifiers), Signal amplification and logic gates (transistors)
  – Digital: Computers (CPU pipeline, GPU), Vending machines, Garage door controller (state machines)

• Supplement with hands-on projects - definitely a must have

• Digital units preferred. Why?
  – Projects aren’t as theoretical
  – Easier to connect to real world applications
  – Design software readily available (Logisim, Vivado)
  – Hardware readily available (SSI, MSI, FPGA)
Interactions (Internships and research)

- Provide Work-Based Learning (WBL) experiences
- Have implemented industry collaboration model in high school
- Extensible to post-secondary education
## Interaction Wish List

<table>
<thead>
<tr>
<th>Wish List (what?)</th>
<th>Target</th>
<th>Challenge (why?)</th>
<th>Possible Solutions/Benefits (how?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post secondary</td>
<td>Industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● AP EE courses</td>
<td>✔️</td>
<td>● No demand (?) Students less inclined to enroll in rigorous non-AP course</td>
<td>● Propose courses to college board</td>
</tr>
<tr>
<td>● Certifications</td>
<td>✔️</td>
<td>● Many cert programs available but value is questionable. Not built into course curriculum</td>
<td>● Provide extension courses for college credit</td>
</tr>
<tr>
<td>● Teacher training</td>
<td>✔️</td>
<td>● Programs are rigid, teacher are apprehensive</td>
<td>● Provide courses built around certification</td>
</tr>
<tr>
<td>● Salary surveys, Industry 'rockstars'</td>
<td>✔️</td>
<td></td>
<td>● Provide resume padding (certifications, awards)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● Build rapport with parents</td>
</tr>
</tbody>
</table>
## Interaction Wish List

<table>
<thead>
<tr>
<th>Wish List (what?)</th>
<th>Target</th>
<th>Challenge (why?)</th>
<th>Possible Solutions/Benefits (how?)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marketing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● AP EE courses</td>
<td>✔️</td>
<td>● No demand (?) Students less inclined to enroll in rigorous non-AP course</td>
<td>● Propose courses to college board</td>
</tr>
<tr>
<td>● Certifications</td>
<td>✔️</td>
<td>● Many cert programs available but value is questionable. Not built into course curriculum</td>
<td>● Provide extension courses for college credit</td>
</tr>
<tr>
<td>● Teacher training</td>
<td>✔️</td>
<td>● Programs are rigid, teacher are apprehensive</td>
<td>● Provide courses built around certification</td>
</tr>
<tr>
<td>● Salary surveys, Industry ‘rockstars’</td>
<td>✔️</td>
<td></td>
<td>● Provide resume padding (certifications, awards)</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td></td>
<td>● Expensive, teacher lack of knowledge</td>
<td>● Build rapport with parents</td>
</tr>
<tr>
<td>● Tools/equipment</td>
<td>✔️</td>
<td></td>
<td>● Donations, training, e.g. space on a wafer</td>
</tr>
</tbody>
</table>
## Interaction Wish List

<table>
<thead>
<tr>
<th>Wish List (what?)</th>
<th>Target</th>
<th>Challenge (why?)</th>
<th>Possible Solutions/Benefits (how?)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marketing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● AP EE courses</td>
<td>✔️</td>
<td>● No demand (?)</td>
<td>● Propose courses to college board</td>
</tr>
<tr>
<td></td>
<td>✔️</td>
<td>Students less inclined to enroll in rigorous non-AP course</td>
<td>● Provide extension courses for college credit</td>
</tr>
<tr>
<td>● Certifications</td>
<td>✔️</td>
<td>● Many cert programs available but value is questionable. Not built into course curriculum</td>
<td>● Provide courses built around certification</td>
</tr>
<tr>
<td>● Teacher training</td>
<td>✔️</td>
<td>● Programs are rigid, teacher apprehensive</td>
<td>● Provide resume padding (certifications, awards)</td>
</tr>
<tr>
<td>● Salary surveys, Industry ‘rockstars’</td>
<td>✔️</td>
<td></td>
<td>● Build rapport with parents</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td></td>
<td>● Expensive, teacher lack of knowledge</td>
<td>● Donations, training, e.g. space on a wafer</td>
</tr>
<tr>
<td>● Tools/equipment</td>
<td>✔️</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Work-based Learning Industry and Research-based internships</strong></td>
<td>✔️</td>
<td>● Is it possible to create non-degree workforce training programs?</td>
<td>● Offer certifications (e.g., ‘preferred skill sets’ to join company ABC or attend University XYZ)</td>
</tr>
<tr>
<td>● Workforce readiness/training</td>
<td>✔️</td>
<td>● Requires organization/funding (e.g. FIRST)</td>
<td>● Work with industry leaders to define what a program would look like</td>
</tr>
<tr>
<td>● Competitions</td>
<td>✔️</td>
<td>● Mentor responsibilities, engagement</td>
<td>● Offer scholarships, prizes to engage students</td>
</tr>
<tr>
<td>● Research opportunities</td>
<td>✔️</td>
<td>● Facility availability</td>
<td>● Flipped internship/research model (more on this next)</td>
</tr>
</tbody>
</table>
Internships / Research

What works and what doesn’t

Traditional Internship Challenges

Industry/Post-secondary Partner Engagement

● Work permits / labor laws
● Facility resource allocation (desks, cubicle, lab space)
● On-site management
● Liability insurance

School District

● Student’s schedule (time)
● Liability insurance
● Transportation
● Funding (butts in seats)
Internships / Research

What works and what doesn’t

Traditional Internship vs. Flipped Model

**Internships provide students opportunities for supervised and specific practice for a future career.** (CALPADS definition)

**Off campus**
- Students apply classroom learning in a **workplace** setting.
- **Teacher facilitates, Industry partner manages student work**

**On campus**
- Students apply workplace learning in a **classroom** setting.
- **Industry partner facilitates, Teacher manages student work**

**CALPADS**: California Longitudinal Pupil Achievement Data System
Interactions - Flipped-Internship Model in Practice

- Local industry partner (mentor) coordinates engineering projects, Team (students) execute, Team manager (teacher) tracks day-to-day activities

- Project-based work allocated during class time

- Industry partners provide feedback, guidance and performance rubrics
Interactions - ‘Flipped’ Course Content and Timeline

Week 1

Pre-class coordination

Project Kick-off

Assign Projects

Intro Design & Development
Intellectual Property
Project Management

Research Methods
Design Documentation
Test Plans

Class project kick-off
meeting with industry liaison
to discuss project definitions and schedule.

Assign project teams
according to skill sets and interest (optional - industry interviews)

Project Status Updates

In-class project time
Status updates via conference call or on-campus visits

Pre-class coordination with industry mentors to choose projects and set expectations/ outcomes.

Week 18

Acceptance Testing

Project acceptance testing performed at industry site (field trip) or on campus.
Interactions - Benefits of Flipped Internships/Research

**Student Participants:**
- Real-world WBL experiences
- Exposure to design process, not just tech content
- Networking opportunities
- Flexible (COVID-proof)

**Industry/Post-secondary Partners:**
- Positive community outreach (good PR!)
- Execution of unstaffed projects
- Eliminates oversight, insurance, labor costs
- Pipeline to future workforce/students
Backup
What is Work-Based Learning?

... a continuum of intentional activities and experiences designed to expand the boundaries of the classroom and prepare students for future career opportunities. Activities and experiences begin as early as pre-kindergarten and continue through post-secondary education.
What is Work-Based Learning?

**CAREER AWARENESS**

Learning ABOUT work
Building awareness of the variety of careers available and the role of postsecondary education.

Experiences might include:
- Workplace tours
- Guest speakers
- Career fairs
- Visiting parents at work

Elementary school

**CAREER EXPLORATION**

Learning ABOUT work
Exploring career options for the purpose of motivating students and informing their decision-making in high school and postsecondary education.

Experiences might include:
- Informational interviews
- Job shadowing
- Virtual exchange with a partner

Middle school

**CAREER PREPARATION**

Learning THROUGH work
Applying learning through practical experience that develops knowledge and skills necessary for success in careers and postsecondary education.

Experiences might include:
- Practicums
- Internships
- Integrated project with multiple interactions with professionals
- Student-run enterprises with partner involvement
- Service learning and social enterprises with partners
- Compensated internship connected to curriculum

Post secondary

**CAREER TRAINING**

Learning FOR work
Training for employment and postsecondary education in a specific range of occupations.

Experiences might include:
- Internships required for credentials or entry to an occupation
- Apprenticeships
- On-the-job training
- Work experience

High school

Work-based Learning Codes will be analyzed for inclusion in the Fall 2022 Dashboard.
**Why is WBL important**

Priority Sector Reports detail workforce gaps and challenges in key industry sectors, and then offer suggestions to address challenges and ensure a strong future workforce.

5 Key sectors Profiled in 2015 Report: Advanced Manufacturing, Clean Energy, Health Care, Information and Communication Technologies (ICT), and Life Sciences.

---

### Advanced Manufacturing
- Change the public perception of traditional manufacturing to Advanced Manufacturing
- Foster science, technology, engineering and math (STEM) education in the K–12 system
- Add internship/work experience requirements to training and education programs
- Increase the number of public-private partnerships to share resources
- Expand and develop the talent pipeline
- Align the workforce system with employers’ needs
- Standardize certifications and create articulation agreements
- Increase employer knowledge of and access to business assistance programs

To date, there are 57 workforce initiatives in San Diego’s Advanced Manufacturing sector. 47 of these initiatives are training and education programs. The figure below shows the breakdown of these programs.

![Chart showing workforce initiatives in Advanced Manufacturing](chart.png)
Democratizing IC Design:
The IEEE SSCS PICO Program

Boris Murmann
murmann@stanford.edu
Chair, SSCS TC Open-Source Ecosystem
June 29, 2022
How to Attract IC Design Talent?

- Current generation thrives on collaborative maker culture
- Make IC design more accessible, inclusive, open
- Leverage rapidly growing open-source ecosystem
Platform for IC Design Outreach (PICO)

- 61 design proposals
  - 18 selected
  - 11 taped out

- Weekly meetups (August-November)

- IEEE & SSCS student memberships offered to all participants

- Pakistan team starting a new SSCS Student Branch Chapter

Open-Source Chipathon 2021

Making IC Design OPEN-SOURCE!
It's truly an amazing opportunity to be selected as one of the 18 teams around the globe that will be participating in the IEEE SSCS PICO Design Contest and getting our hands dirty on the new Google-skywater’s open-source 130nm PDK!

Thank you IEEE SSCS, Efabless Corporation, and Boris Murmann for this initiative!
Excited to be working with you all in the upcoming months
## Designs Completed & Taped Out

- Tape-out via Efabless chipIgnite program (130nm SkyWater)
- All designs shared on GitHub

<table>
<thead>
<tr>
<th></th>
<th>Function</th>
<th>Team</th>
<th>Chip URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5G bidirectional amplifier</td>
<td>Pakistan3 (FAST National University)</td>
<td><a href="https://efabless.com/projects/560">https://efabless.com/projects/560</a></td>
</tr>
<tr>
<td>2</td>
<td>Wireless power transfer unit</td>
<td>Pakistan2 (FAST National University)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Variable precision fused multiply-add unit</td>
<td>Pakistan1 (FAST National University)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Oscillator-based LVDT readout</td>
<td>India2 (Anna University)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Temperature sensor</td>
<td>India1 (Anna University)</td>
<td><a href="https://efabless.com/projects/474">https://efabless.com/projects/474</a></td>
</tr>
<tr>
<td>6</td>
<td>GPS baseband engine</td>
<td>India3 (Anna University)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>TIA for quantum photonics interface</td>
<td>USA4 (University of Virginia)</td>
<td><a href="https://efabless.com/projects/470">https://efabless.com/projects/470</a></td>
</tr>
<tr>
<td>9</td>
<td>Bandgap reference</td>
<td>Egypt (Cairo University)</td>
<td><a href="https://efabless.com/projects/473">https://efabless.com/projects/473</a></td>
</tr>
<tr>
<td>10</td>
<td>Neural network for sleep apnea detection</td>
<td>USA2 (University of Missouri)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>SONAR processing unit</td>
<td>Chile (University of the Bio-Bio)</td>
<td><a href="https://efabless.com/projects/540">https://efabless.com/projects/540</a></td>
</tr>
</tbody>
</table>
SSCS TC Open-Source Ecosystem

Boris Murmann
Stanford
USA

Thomas Brandtner
Infineon
Austria

Francisco Brito Filho
Fed. Univ. Semiariido
Brazil

J. Dhurga Devi
Anna Univ.
India

Jaeduk Han
Hanyang Univ.
Korea

Chiraag Juvekar
Apple
USA

Rana Muhammad
FAST National Univ.
Pakistan

Harald Pretl
Kepler Univ., Linz
Austria

Priyanka Raina
Stanford
USA

Mehdi Saligane
Univ. Michigan
USA

Mirjana Videnovic-Misic
Silicon Austria Labs
Austria
TC-OSE Charter

- Organize Chipathon
- Engage with broader open-source community
- Engage with industry players/consortia
- Develop publication venues for open source
- Contribute to tools & education infrastructure

Please talk to us if you want to get engaged!
Ongoing Chipathon

2022 SSCS "PICO"
Open-Source Chipathon
Proposal Deadline: May 1, 2022

The IEEE Solid-State Circuits Society is pleased to announce its second open-source integrated circuit (IC) design contest under the umbrella of its PICO Program (Platform for IC Design Outreach). While this contest is open to any individual or team, we especially encourage the participation of pre-college students, undergraduates, and geographical regions that are underrepresented within the IC design community.

55 submissions, 22 teams selected
Links

- PICO program overview
  - https://sscs.ieee.org/about/solid-state-circuits-directions/sscs-pico-program

- TCE-OSE resource page
  - https://sscs-ose.github.io/

- Chipathon volunteer sign-up
  - https://sscs.ieee.org/volunteer-opportunities#SSCD