

# 2023 ANNUAL REPORT

Critical thinking and community engagement are essential to empowering youth to become productive citizens in our complex modern society where these skills, combined with universal collaboration, are needed to advance all aspects of societal development. Broadcom Foundation works with its partners throughout the United States and the world to realize this goal by promoting STEM education and digital literacy as skills to tackle community challenges that align with the 17 Sustainable Development Goals of the United Nations. Teaching young people to act locally and think globally is at the heart of the foundation's work with code clubs and regional science fairs in urban, rural, and tribal communities where young people are honing their ability to innovate change. The Foundation advocates these principles through robust partnerships with Broadcom Inc. and community nonprofits that invest in youth from day to day.

*- Henry Samueli - Chairman of the Board, Broadcom Foundation*





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## I Broadcom Foundation Mission

*To advance science, technology, engineering and mathematics (STEM) education by increasing opportunities to achieve success through equitable access to STEM pathways.*



Tobe Muoto, *Broadcom Coding with Commitment*<sup>®</sup> award winner at the Northwest Science Expo



## II 2023 Broadcom Foundation Leadership

### Board of Directors

**Henry Samueli**  
Chairman of the Board

**Paula Golden**  
President

**Carl McKinzie**  
Chairman, Audit Committee

### Executive Team

**Maria Wronski**  
Chief Financial Officer & Associate Director for STEM Advancement

**Nicolaos (Nick) G. Alexopoulos**  
Vice President Emeritus for Academic Affairs

### Foundation Staff

**Cheryl Braun**  
Assistant Director for STEM Advancement

**Melissa DeGandi**  
Program Coordinator

**Carol McDonald**  
Executive Administrative Assistant

*Special thanks to LITCO and 321GoMedia.com for their leadership in visual design and production 24/7 throughout the year.*



Top Photo: Maria Wronski, Carl McKinzie, Paula Golden, and Henry Samueli  
Bottom Photo: Broadcom Foundation Staff



# III Joint Message from Broadcom Foundation Chairman of the Board and President

April 30, 2024

Friends,

Closing the pervasive digital divide is a complex task that requires the cooperation and coordination of a myriad of stakeholders. To this end, Broadcom Foundation has reframed its mission in STEM to amplify the importance of digital literacy in the US and abroad.

The Foundation is focusing its spotlight on workforce development and the proposition that digital literacy is an essential 21st Century+ skill needed to access knowledge and training that people need to succeed in our technology-driven world today. Because universal broadband is an essential capital investment needed to achieve digital literacy, the Foundation is working to eradicate long-standing inequities in access to broadband infrastructure in underserved urban, rural, and tribal communities.

In anticipation of full implementation of the Infrastructure and CHIPS and Science Acts, Broadcom Foundation has taken a leading role in advocating critical federal, state, and non-profit STEM funding in under-resourced communities. It is supporting national STEM Learning Ecosystems initiatives to make available grantmaking tools to those regional ecosystems that have insufficient resources and personnel required to vie for public grants. It is encouraging private sector stakeholders and educating the general public about the importance of digital literacy as a Critical 21st Century+ skill for today's workforce.

Broadcom Foundation's partnership with the Raspberry Pi Foundation and ScienceBuddies.com offers free online project-based tools to children at both in-class and afterschool venues. The Foundation hosted a retreat in Portland, Oregon, for science fair directors to give them a deep dive into the value of these resources for teachers and students in their communities, which inspired spin-off initiatives around coding for teachers and classrooms in a number of regions.

The Foundation's decision to focus on this important issue is catching an important wave worldwide. Digital literacy is indispensable for every global citizen, whether to communicate, find employment, receive comprehensive education, or socialize. In our ever-evolving world, digital literacy is becoming a vital component to fostering a more open, inclusive, and secure society that is prepared to meet the challenges of the future.



Henry Samueli  
Chairman of the Board



Paula Golden  
President

Broadband Advocates Paula Golden and Henry Samueli





## IV Broadcom Foundation Goals (as Revised December 14, 2022)



Science, technology, engineering, and mathematics are the underpinnings of an advanced society and indicators of society's ability to sustain itself and prosper. To meet the moment and prepare young people for careers and workforce opportunities arising from the 17 Sustainable Development Goals, the Broadcom Foundation board has modified foundation goals:

- Increase the number of engineers who enter the workforce by sponsoring programs that inspire and empower youth to pursue careers in engineering
- Expand secondary education, college, and career STEM opportunities for women and underrepresented youth by advocating and creating equitable access to STEM pathways
- Ensure that all youth are digitally literate through STEM programs that include coding and computational thinking as the 21st Century+ skill needed to succeed in STEM careers
- Create volunteer opportunities in STEM programs where Broadcom employees live and work
- Strengthen social responsibility and global citizenship through strategic collaborations with STEM stakeholders, educators, and volunteers

Blessing Chombo, African Science Buskers Festival



## V Thought Leadership

### Broadcom Foundation Champions Broadband for All

Broadcom Foundation is helping inform national and state leaders of the importance of universal access to broadband. The Foundation advocated for equity-driven accessible broadband maps in several states, including California. It is funding the TIES (Teaching Institute for STEM Education) grant-making process to assist regional STEM Learning Ecosystems to obtain funding from National Science Foundation to dispense CHIPS Act funding for K-12 STEM programs that scale up best practices through new NSF-funded centers. The TIES instructional pamphlet includes a preface from Foundation President, Paula Golden.

### STEMNext Opportunity Fellow Offers Her Expertise to Department of Labor

Broadcom Foundation is into the second year of a four-year commitment to support a STEMNext Opportunity Fellow. The Foundation is presently supporting the fellowship of Stephanie Rodríguez, PhD, who is a Senior Workforce and Training Policy Fellow in the U.S. Department of Labor Employment and Training Administration. An immunologist by training, Dr. Rodríguez brings her data and analytics approach to STEM workforce equity and policy advancement. Prior to this position Dr. Roderiguez served as an AAAS Science and Technology Policy Fellow at the National Science Foundation and as the Afterschool Alliance STEM Policy Director.

Broadband Advocates Paula Golden and Vince Stewart





## V Thought Leadership cont.



### STEM Ecosystems Communities of Practice Hosts Workshop on Afterschool Coding

The 14th convening of the STEM Learning Ecosystems Community of Practice attracted STEM leaders from the ~100 STEM Ecosystems throughout the United States. Broadcom Foundation sponsored a Coding Workshop, at which Bervin Harris, founder of Renaissance Youth Center in the Bronx, and Bartel Welch, founder of CODE 313 in Detroit, showcased their unique approaches to bringing digital literacy through coding to underrepresented youth. The workshop followed a plenary session by Paula Golden, who shared her perspective on opportunities for expanded digital literacy under the 2022 CHIPS Act. Workshop participants experienced “coding a peanut butter and jelly sandwich” to get a feel for computational thinking (with the reward of making lunch), followed by a deep dive into the free on-line resources offered by the Raspberry Pi Foundation’s Kevin Johnson and an impromptu visit by Captain Barrington Irving, Jr., founder of the Flying Classroom. Captain Irving, who previously held the record as the youngest aviator and first black individual to pilot a plane around the world solo in 2007, encouraged participants to embrace the workshop’s focus on the inclusive and accessible nature of coding, inspiring participants to consider incorporating coding in their afterschool programs.

### Tides 100K-in-10 Partnership

Working with its long-term partners, 100K-in-10, the Foundation has made a grant to expand the 100K-in-10 open resource Toolkit to include a DEIB component for use by university departments of education and K-12 schools, which offers culturally relevant resources for teaching STEM to under-resourced, tribal, and students of color, with the goal of achieving greater diversity in the US teaching population and providing students with STEM educators “who look like me.”

STEM Ecosystem Convening - Presenters Bartel Welch, Bervin Harris, and Kevin Johnson with Captain Irving



## V Thought Leadership cont.

### Broadcom Inc. and Renaissance Youth Center Shine During 2023 UN General Assembly

After inspiring Broadcom Inc. employees with his online presentation earlier in 2023, Renaissance Youth Center (RYC) Founder and CEO Bervin Harris teamed up once again with Broadcom Inc. Senior Director of Network Management Products Michael Melillo at the United Nations to promote *Broadcom Coding with Commitment*<sup>®</sup> during General Assembly Week. Joining them on the PVBLIC Foundation Media Zone stage was Johan Santana, a talented fifth grade student from New York City's PS 63 Authors Academy and a long-standing participant at RYC. The presenters captivated the audience by shedding light on the world of digital literacy, coding and code clubs, and why they are important. Johan recently found his passion for innovation through RYC's "Code the Bronx" program and shared an innovation that he and his fellow student colleagues developed to assist sight-impaired people. He showcased his team's project that perfected their "blind stick" to wearable glasses that sense obstacles in the path of a sight-impaired person.

Joining them for an annual reprise were members of the Music With a Message (MWAM) Band who performed on stage and on the United Nations Plaza. The MWAM Band had just returned from their Summer Sustainable Development Tour supported by Broadcom Foundation and accompanied by RYC talented young scientists and inventors. Their mission was to encourage youth to think globally by acting locally to promote the 17 Sustainable Development Goals of the UN and *Broadcom Coding with Commitment*<sup>®</sup>. The MWAM Band has performed original music through instrumentals, song, and dance for thousands of people each year since 2009 at such venues as Yankee Stadium, Carnegie Hall, Lincoln Center, the Apollo, the New School, and NYC Summer Stage. Many have gone on to college and careers, becoming community advocates and role models.

publish biographical information about the hidden STEM heroes and heroines in Wikipedia. The project commenced during the Spring 2023 semester.

University faculty at Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), and Tribal Colleges assign students to edit course-related topics on Wikipedia's verified research-driven platform as a class assignment. Students created 18 new biographies of notable figures in technology, math, and engineering "who look like me" and whose stories will inspire young people interested in their field. Among these "hidden figures" are electrical engineer, philanthropist, and American business executive Rodney Atkins; entrepreneur, technology advocate Asmau Ahmed; and entrepreneur and innovator Camille Hearst. For the Fall 2023 semester, Wiki Education received twice the level of interest from faculty to participate in this pioneering initiative to make Wikipedia a more inclusive place to learn and more representative of its vast readership.

### WikiEd Project Chronicles STEM Heroes Who "Look Like Me"

Broadcom Foundation is partnering with Wiki Education ([wikiedu.org](https://wikiedu.org)) to train students from diverse institutions of higher learning to research and



RYC and RPiF CEOs at "Code the Bronx"



Renaissance Youth Center's MWAM Band performs on UN Media Zone stage



WikiEd's Howard University class finds new heroes



## VI STEM Pathways to Colleges and Universities

### College Pathway for First-Generation Students in San Jose California

Broadcom Inc. and Broadcom Foundation have completed the second of a joint three-year commitment to deploy the SJ Aspires digital platform that provides high school students with access to a self-guided curriculum, supplemental college advising and guidance, and micro-scholarships as they become college and career-ready young adults. In 2023, SJ Aspires successfully expanded to over 1,600 students and celebrated its first cohort of graduating seniors from San José High School. In addition, the program introduced new award opportunities designed specifically for seniors, focusing on college applications, financial aid applications, and utilizing their adult mentors and networks.

Stanford University's John W. Gardner Center for Youth and Their Communities is conducting a longitudinal study of SJ Aspires with a focused cohort of students from San José High School's graduating class of 2023. Key findings include that 69.7% of SJ Aspire students earned an award for school attendance; 40.6% of Aspire students maintained a 3.3+ GPA; and 38.6% of Aspire students earned an award for succeeding in an AP, IB, or Honors courses. SJ Aspire students have gone on to attend California community colleges, UCs, Santa Clara University, CSUs, and universities on the East Coast such as Carnegie Mellon University and New York University.

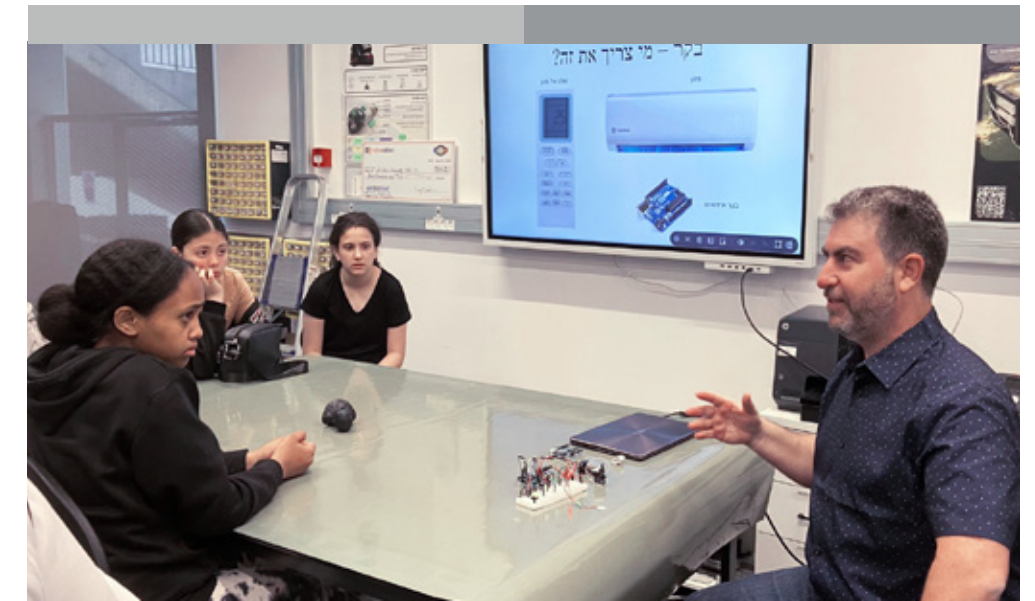
### Tel Aviv University FABLab Brings Digital Literacy to Underserved Students

Broadcom Foundation is funding a FABLab at Tel Aviv University that is modeled after the FABLab

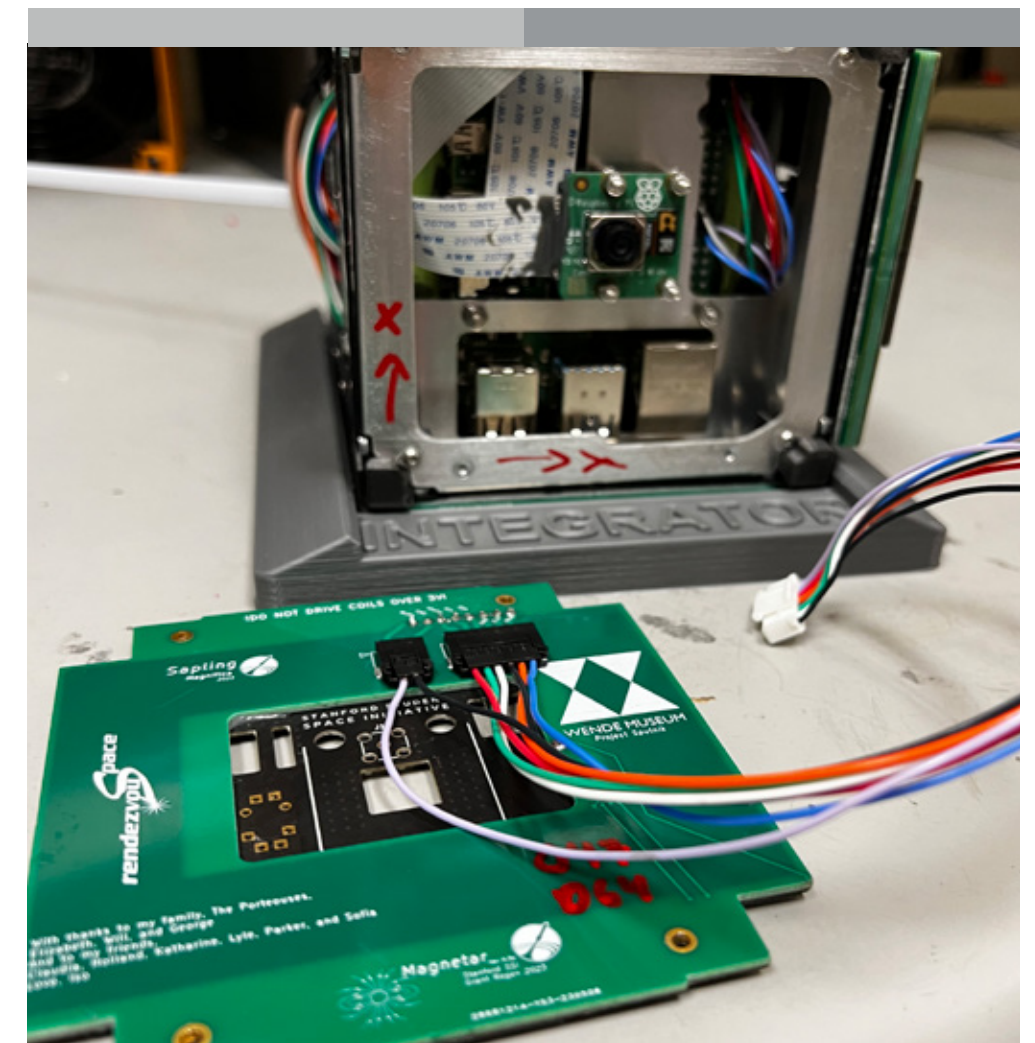
at the Henry Samueli School of Engineering at University of California, Irvine, under the supervision of Noam Eliaz, Dean of Engineering. The TAU engineering faculty has initiated the "Young Female Engineers" project that provided an opportunity for university exposure in STEM fields for 50 female middle school students from two schools from the social periphery of Tel Aviv and Bat Yam. Young engineers participated in an intensive programming course while guiding and sharing knowledge with the Raspberry Pi Code Club *Alice Code*. The experience gave the students a unique opportunity to experience academia and exposed them to the applied aspects of engineering in a wide range of fields.

### Stanford University Student Project to Send Pi to Space

Broadcom Foundation assisted members of the Stanford Student Space Initiative (SSI), which is under the auspices of Wende and PST ART, to obtain a Raspberry Pi 4 needed for their "Sputnik" satellite project. The project is showcased to a broad audience, including alumni and younger students interested in applying to Stanford. SSI members hosted Paula Golden and CEO of Raspberry Pi Foundation Philip Colligan for a tour of their "skunk works" where they prepare for their satellite launch in October 2024. The feather-light Pi is being used to power the camera in the tiny satellite, which will transmit images to Stanford during orbit. The Wende Museum is helping the satellite's "lift off" that will send a replica of the first artificial Earth satellite into orbit on the 67th anniversary of the Soviet Union's launch of Sputnik.



TAU FABLab



Raspberry Pi set to launch on the Stanford Student Satellite



## VI STEM Pathways to Colleges and Universities cont.



Paula, Cheryl, and CSO team from Westminster High

### Orange County Takes Up Innovative Pathway Challenge to Include CSO Program

Broadcom Foundation is partnering with SciTech Institute to bring the Chief Science Officer (CSO) Program to Orange County, California. CSO programming includes leadership training and planning STEM engagement opportunities for sixth to twelfth graders to build STEM awareness and important workforce skills. Under the guidance of the Foundation's Cheryl Braun, Assistant Director for STEM Advancement, six students distinguished themselves by executing their STEM Action Plans at nearby Title 1 elementary schools, enriching the academic lives of students through hands-on science experiments. Adding to the program's accolades, three students represented Orange County in Jacksonville, Florida, at the STEM Ecosystem Community of Practice Convening in April 2023. There, they impressed adult participants with their thoughtful questions and valuable input on how students wish to be engaged in solving global issues. These dedicated CSOs went a step further by organizing a STEM night for families, ensuring multilingual booths to facilitate engagement in English, Spanish, and Vietnamese—the languages most spoken in their communities.

The program's success in 2023 has paved the way for expanded initiatives in the coming year and a potential collaboration with the Orange County Department of Education to expand CSO activities throughout the system over time.

### UCI Retools Strategies for College and Career Pathways

Broadcom Foundation and University of California, Irvine (UCI) Samueli School of Engineering have restructured their relationship, under the direction of Dean Magnus Egerstedt, to focus on integrating digital literacy into workforce development pathways and uniquely position the School of Engineering as a thought leader in this area. Dr. Leyla Riley is tasked with implementation in the coming year. Lead initiatives include aligning coding and computer courses in Orange County community colleges to improve the pathways for students from underrepresented/under-resourced backgrounds and those seeking digital literacy training from two-year colleges to qualify for jobs, trade schools, apprenticeships, and four-year programs; collaborating with OC Department of Education and in- and afterschool and community partners; building upon the FABcamp foundation to tap the mentoring talent and energy of UCI engineering students; and creating a program for professional development, training, and best practices for coding instruction for educators in formal and informal learning environments.

### Cal State East Bay Summer Workshop for Teachers Who Code

Cal State East Bay Institute for STEM Education transitioned back to a face-to-face model and hosted 8 hours of workshops for 30 middle and high school STEM teachers from Alameda and Contra Costa Counties who serve as Advisors in the MESA College Prep Program. Participants were focused on developing fluency in Python using Raspberry Pi's and developing lessons they could implement in their classrooms with their students.



CSO Kianna Doan teaches STEM to first graders at Clegg Elementary School in Huntington Beach



## VII *Broadcom Coding with Commitment*<sup>®</sup> takes Flight



### *Broadcom Coding with Commitment*<sup>®</sup> Around the Globe

Broadcom Foundation expanded its programs to combine coding and computational thinking with project-based learning in order to “connect the dots” between STEM subjects, digital learning and global citizenship. The Foundation sponsors the award in the US, India, Malaysia, and Zimbabwe as well as the 2023 Thermo Fisher Scientific Innovators Challenge and international Raspberry Pi Foundation’s Coolest Projects.

*Broadcom Coding with Commitment*<sup>®</sup> recognizes students who use basic coding to solve a community problem they care about that aligns with the 17 Sustainable Development Goals of the United Nations (SDGs). The award gained traction at the Foundation’s sponsored science fairs which take place in urban, rural, and tribal communities. Unlike elite awards in science fair, judges are expected to consider what resources were available to the student(s) when selecting a winner from among low-income or underrepresented students whose access to STEM or computing tools are more limited than for other science fair competitors.

Representing the Orange County Science and Engineering Fair was Zitlaly Lopez whose project won the *Broadcom Coding with Commitment*<sup>®</sup> Award. Her words summarize the success of the program:

“*Broadcom Coding with Commitment*<sup>®</sup> recognition has inspired me to think of more science fair project ideas involving coding and computer technology at the high school level,” said Zitlaly. “This opportunity has guided me into choosing certain classes that involve coding with computer technology. Thanks to this award, I have been able to set myself into the right pathway for the rest of high school and my future throughout college.”

Zitlaly Lopez, OCSEF *Broadcom Coding with Commitment*<sup>®</sup> winner, with her parents and teacher, Mr. Travis Garwick



## VII *Broadcom Coding with Commitment*<sup>®</sup> takes Flight cont.

### Science Fair Directors Dive into Coding at Portland Retreat

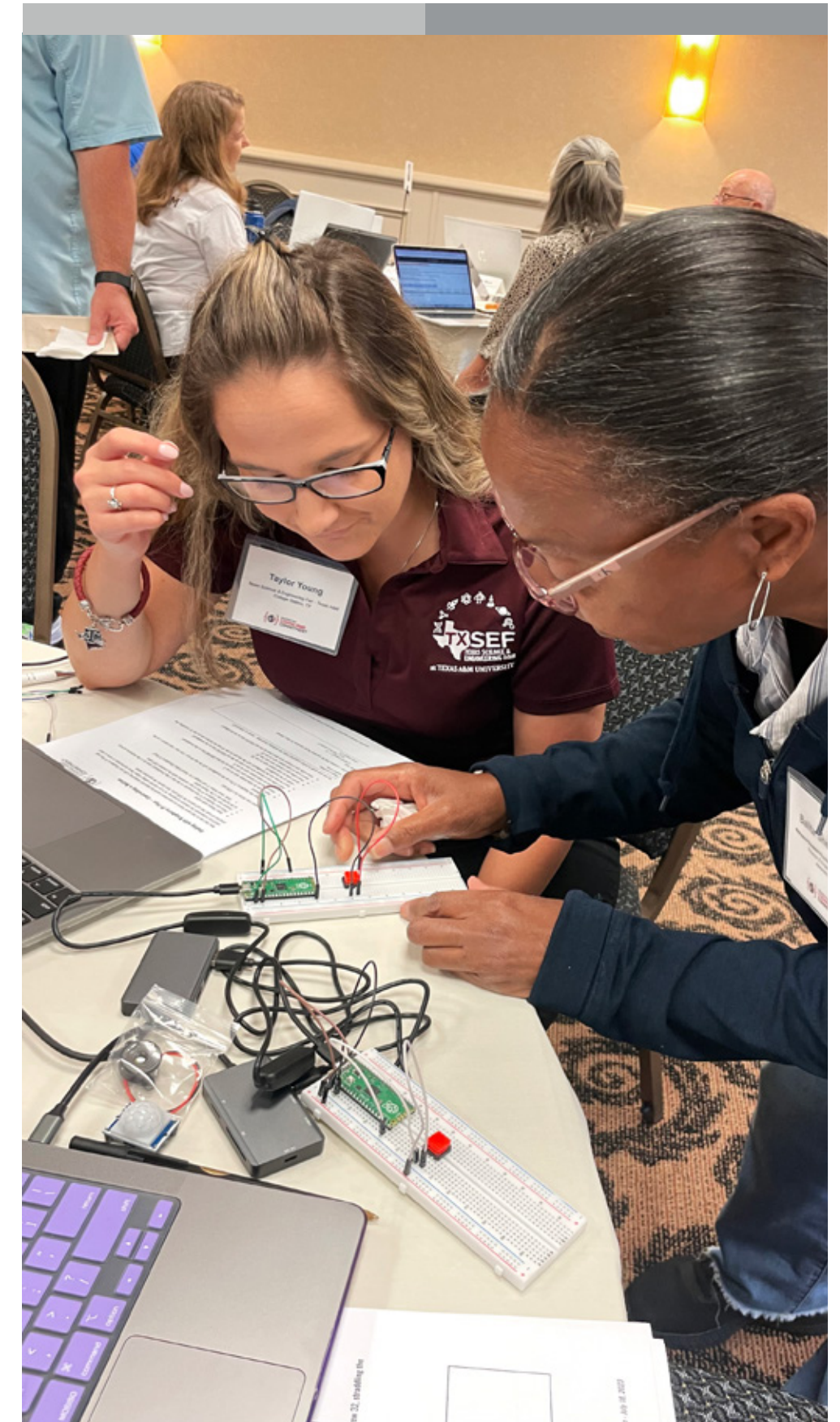
In order to focus science fair directors on the importance of coding as a 21st Century+ skill, the Broadcom Foundation invited 40 directors to attend a three-day workshop in Portland, Oregon, curated by Maria Wronski. The event brought together directors who have rarely had an opportunity to discuss best practices and strategies for post-COVID science fairs, and many who had never coded before. After ice breakers, which included learning how to “code a cupcake,” directors learned basic coding from the best of the best in Raspberry Pi pedagogy: Kate McGregor from the Computer History Museum, her engineer-husband Lorne Kindelman, and Alex Mora and Kevin Johnson from Raspberry Pi Foundation North America. Coding teams worked with such physical components as a breadboard, Raspberry Pi, wires, buzzers, lights, and sensors.

Presenters on high-level views about coding and science fair practices included Maria Wronski; Stephen Rodecker from the Greater San Diego Science & Engineering Fair; Raspberry Pi Foundation President and CEO Philip Colligan; and Orange County Science & Engineering Fair President and Mentor Match Designer Prasanthi Sathyaprakash. Broadcom Foundation’s Dana Orsini and Cheryl Braun made presentations on Social Media and Tools for Science Fair Public Awareness and Community Outreach and Inclusion.

Beyond the technical learning, the retreat fostered connections among the fair directors, creating a powerful network of like-minded individuals. This network is now collectively influencing science fairs nationwide, as they actively encourage students at their respective fairs to incorporate coding into their projects and make it an integral part of the scientific exploration process.



Fair directors from around the country come together to learn coding at Portland retreat



Fair directors Taylor Young and Balita Shepperson learn to code at Portland retreat



## VII *Broadcom Coding with Commitment*<sup>®</sup> takes Flight cont.



Broadcom Inc.'s Pamela Liou presents award to Keshvee Sekhda at the Thermo Fisher Scientific Innovators Challenge

### 2023 Thermo Fisher Gala Awards *Broadcom Coding with Commitment*<sup>®</sup>

Broadcom Inc. Senior Associate General Counsel, ESG and Compliance Legal, Pamela Liou represented the Foundation at the Thermo Fisher Junior Innovators Challenge to bestow the *Broadcom Coding with Commitment*<sup>®</sup> award. She was joined by her young son Oliver who was intrigued by the finalists' student projects.

More than half of this year's finalists identify as female, the top project category was engineering, and over half of the finalists attended public schools. As it was for the Broadcom MASTERS<sup>®</sup>, middle school competitors represent the top 10%

of their local affiliated science fair. Liou presented the \$10,000 *Broadcom Coding with Commitment*<sup>®</sup> award to 14-year-old Keshvee Sekhda from Sugar Hill, Georgia, who, along with her teammate Nyambura Sallinen, developed *IdentiCan*, a smartphone app that identifies breast, lung, and skin cancer, using photos or health scans, sound clips, and personal health information to predict diagnoses. Said Liou, "Today, so many of the students have projects that are aimed at addressing the Sustainable Development Goals of the United Nations, and there is hope for the future."

### ScienceBuddies.org Builds Coding Platform for Science Projects

This year, ScienceBuddies.org expanded its partnership with the Broadcom Foundation to support, encourage, and enable students to apply basic coding in research or project design to their science and engineering projects. ScienceBuddies.org is also promoting *Broadcom Coding with Commitment*<sup>®</sup> to encourage students in fifth through eighth grade to use coding to solve a community problem they care about that aligns with the 17 Sustainable Development Goals of the UN.

The two organizations are promoting coding as a Critical 21st-Century+ skill, a language and design tool that empowers students and prepares them for today's tech-driven economy. Science Buddies showcases inspiring code-based projects for students seeking ideas for science fairs on its respected, time-honored international platform. It encourages students to get started coding with a range of accessible drag-and-drop coding tools

and programming languages, including Scratch for block-based programming and Raspberry Pi or Arduino for physical computing projects that combine circuit building and coding.

Science Buddies offers resources not only for science fair projects but for any student with a passion for STEM. It provides ideas, procedures, materials lists, variables, notes on safety, notes on requiring adult supervision, ISEF rules, SDG connection, and career options based on student interest. It also encourages students to view summer as a great time to explore STEM and coding through *Deep Dive into STEM—Do a Summer Science Project!*



Juwel Forde-Hadly and Broadcom Inc. EE Volunteer, Scott Cummings at the Gwinnett Regional Science, Engineering + Innovation Fair



## VII *Broadcom Coding with Commitment*<sup>®</sup> takes Flight cont.

### ***Broadcom Coding with Commitment*<sup>®</sup> at the IRIS Fair**

Krish Yadav from MKH Sancheti Public School in Nagpur, Maharashtra, was the recipient of the IRIS Fair's *Broadcom Coding with Commitment*<sup>®</sup> award. Krish developed a program called "Interpreter to enable coding in Vernacular Language." Programming is becoming as important as science or math for everyone, but all major computer programming languages (PL) are written in English only, despite the fact that 6.56 billion humans on Earth do not know English. Further, according to UNESCO, learning in the mother tongue is a key factor for inclusion and quality learning.

Lack of standardization and limited functionalities have inhibited efforts to localize programming languages. For implementation purposes, Krish used JS (ECMAScript) as the target language to allow the creation of a web app, which makes it available to anyone on the Internet. His important solution fosters inclusivity and equality (UN SDG 10) by breaking the barrier of language for computer sciences.

### ***Coollest Projects Malaysia 2023***

Coollest Projects Malaysia is a competition for young people ages 18 and under, dedicated to showcasing and celebrating their innovative technological ideas. Organized by Penang Science Cluster, the competition took place in November with 515 submissions from 742 students throughout Malaysia, Hong Kong, India, Japan, Singapore, Vietnam, and Zimbabwe and attracted over 30,000 attendees. Continuing a tradition of

engagement, Broadcom Malaysia employees were among over 50 volunteers as judges and mentors who participated in the first in-person event after the COVID 19 pandemic. The *Broadcom Coding with Commitment*<sup>®</sup> award went to a team of three passionate girls from Sarawak, Malaysia - Selina Yong, Elaine Phan, and Nicole Kiu - for coding their Air Quality Detector, which aligned with Sustainable Development Goal #3 of the United Nations: Good Health and Well-being.

### ***National American Indian Science and Engineering Fair***

The 2023 National American Indian Science and Engineering Fair (NAISEF) took place in April at Oklahoma State University, offering both virtual and in-person options for the first time. The virtual competition had 21 projects (5 junior projects and 16 senior projects), and the in-person fair had 38 competitors (28 junior projects and 10 senior projects). Having set an optimistic goal of 50 applications, NAISEF surpassed its goal with a total of 92 applications submitted and 59 applications successfully presented as projects either virtually or in person.

NAISEF is outgrowing its space and plans to move to a bigger venue in 2025. The Oklahoma State AISES Chapter plans to host its regional conference at the same time as NAISEF, which will create an opportunity to coordinate with NAISEF on a few events and enhance the experience for participating students.



Young coder demonstrates his creation: IRIS fair winner Krish Yadav representing MKH Sancheti Public School



Coding girls from Malaysia showcase their work



## VII *Broadcom Coding with Commitment*<sup>®</sup> takes Flight cont.

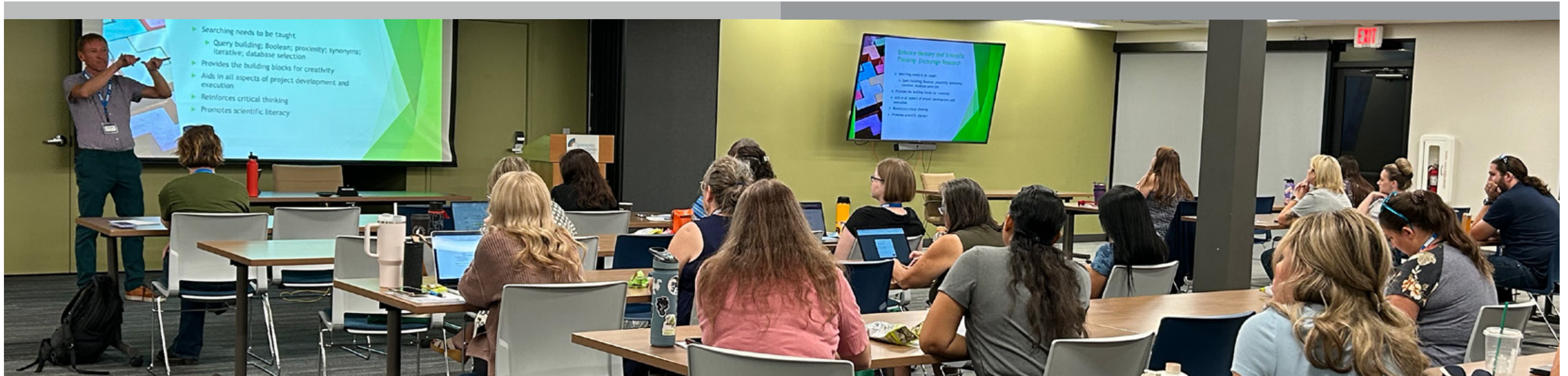
### Southern Arizona Science and Engineering Fair Branches into Coding

The 68th Southern Arizona Research, Science and Engineering Fair (SARSEF) included the 1,559 projects representing over 5,908 students from 139 schools. Over \$129,000 in awards and scholarships was given to students, teachers, and schools, including the *Broadcom Coding with Commitment*<sup>®</sup> Award.

To help support teachers and fair directors for the 2024 Fair, SARSEF hosted a Fair Directors Conference in September 2023 with 60 attendees, some of whom traveled four hours each way to participate. SARSEF was able to provide each attendee with 4 hours of Professional Development (PD), offering 10 different PD workshops, including a 90-minute coding workshop funded by Broadcom Foundation, put together by Kevin Johnson of Raspberry Pi Foundation North America, and delivered by a local coding instructor. Attendees are reporting that the conference impacted over 13,000 students, and it has been reported that as a result of the conference, 16 new Raspberry Pi Code Clubs have been created.

### Delaware Valley Science Fairs (DVSF)

This year the Delaware Valley Science Fairs (DVSF) provided year-round support to fair directors, teachers, and students via a mentorship program; directly impacted 1,745 students and 175 educators; and indirectly influenced thousands of students in Eastern Pennsylvania, Delaware, and Southern New Jersey, all at no cost to the students or schools; engaged 879 students, selecting 1st through 3rd Place winners from each scientific category with Gold, Silver, and Bronze Medal winners for each grade level/group, and fully underwrote 12 high school student medalists, plus two teachers chaperones, to compete and win additional awards and prizes at Regeneron International Science and Engineering Fair (ISEF) in Texas. DVSF's STEM Workshop Program offered 21 workshops across 18 schools, benefiting 42 teachers, indirectly reaching approximately 2,100 students. In addition, DVSF organized three workshops at the regional fair event for approximately 150 educators and guardians and engaged 437 volunteers to assist with fulfilling its mission by serving as volunteer judges and overall event volunteers for the April 2023 DVSF Regional Research Competitions.



Southern Arizona Fair teaches coding to Fair Directors at convening



## VII *Broadcom Coding with Commitment*<sup>®</sup> takes Flight cont.

### Texas Science and Engineering Fair (TXSEF)

The Texas Science and Engineering Fair (TXSEF) at Texas A&M hosted *A Night at the Zach*, an outreach event for participants and their families on the evening before the competition. This year over 5,000 people visited 75 booths from 14 departments of engineering, science, geoscience, agriculture, veterinary medicine, data science, student life, and more. Lockheed Martin brought a flight simulator and ran 600 simulations. Dell brought a mobile computer lab that showcased the latest in technology.

The *Broadcom Coding with Commitment*<sup>®</sup> Award enabled the selection of a coding team that did not have prior science fair experience, with social media posts about the winners spreading through the Rio Grande Valley immediately. When the *Broadcom Coding with Commitment*<sup>®</sup> Award was announced, a student was overheard to say, “If I had known prizes like this were being given, I would have worked harder!”

### Washington State Science & Engineering Fair (WSSEF)

Now in its 67th year, the annual Washington State Science & Engineering Fair (WSSEF) is one of the state’s oldest non-profit educational organizations outside the classroom, serving public, private, parochial, tribal, and home school students from grades 1 through 12. WSSEF statewide outreach events culminated with the multi-day, in-person fair with live performances and activities. WSSEF

attracts students from inner cities, farms, and under-represented students from all 39 counties across Washington State. Each year, February to May, the WSSEF is directly involved in 11 regional, state, national, and international STEM competitions for their students.

Highlights of the 2023 WSSEF included the rare opportunity for a group of students to tour an active-duty submarine at Naval Submarine Base Bangor; a team of representatives from the U.S. Patent & Trademark Office (USPTO) leading a teacher seminar, speaking with students, and networking with their public guests; and hands-on STEM activities, including a 40-foot “van” filled with STEM activities for fair participants and the public.

### Africa Science Buskers Festival Featured in National Geographic Documentary; Takes Coding to Next Level

On December 10, 2023, the world met Memory Bvungo, a STEM star from Zimbabwe who participated in the Africa Science Buskers Festival and has been winning awards and solving problems in her community for many years.

National Geographic followed Memory on her journey to create sustainable fuel production in the new documentary called *SCIENCE FAIR: THE SERIES* that streams on Disney+ and Hulu. Last year Memory won the Broadcom Foundation award at the Africa Science Buskers Festival, an award that is given to the top five overall projects. She was selected to represent Zimbabwe at the 2022 Regeneron ISEF for designing a machine to recycle disposable diapers

and won a Grand Award in 3rd Place in Energy: Sustainable Materials and Design Category.

A Discovery Channel Team from Disney Productions featured the Africa Science Buskers Festival, shadowing Memory and Knowledge Chikundi, the Festival’s Founder and Director, who was introduced to the production team by Maria Wronski and Paula Golden at the 2022 Regeneron ISEF in Atlanta.

Africa Science Buskers also introduced the Autonomous RACECAR (Rapid Autonomous Complex Environment Competing Ackermann steeRing) program, supported by the Broadcom Foundation. Based on the Autonomous RACECAR program, designed and offered by the Beaver Works Summer Institute (BWSI) of the Massachusetts Institute of Technology (MIT), the Autonomous RACECAR program gave students the opportunity to explore driverless vehicle technology, collaborate, and demonstrate fast autonomous navigation through the researching, programming, and assembling of a RACECAR. Their cars ran autonomously through a racetrack of parameters and obstacles at the Africa Science Buskers Festival in July.



2023 Africa Science Buskers *Broadcom Coding with Commitment*<sup>®</sup> award ceremony



## VIII Celebrated Programs in Coding

### Code Clubs Take Hold in New Age of CHIP

There has been an exponential uptick in interest in coding, code clubs, and the importance of digital literacy for workforce preparedness. The 2022 CHIPS Act and the Infrastructure Act have resulted in a national call to action by regional STEM Learning Ecosystems, public schools, and out-of-school programs – all of which are in a position to elevate digital literacy by offering basic coding. Broadcom Foundation has laid the groundwork to support initiatives in under-resourced and underserved communities by promoting Code Clubs initiatives through the Raspberry Pi Foundation. The free, user-friendly resources at CodeClub.org make it possible to create a code club where every child – and adult – can learn to code.

### Introducing Executive Director of Raspberry Pi Foundation North America

In the fall of 2023, the Raspberry Pi Foundation (RPF) named Sofia Mohammed as the first executive Director of Raspberry Pi Foundation North America. Sofia is the former interim CEO of Black Girls CODE, a non-profit organization supported by Broadcom Foundation since its inception. She led that organization to launch a digital, culturally responsive coding academy that has reached over 20 million people through impressions and views.

Prior to her work with Black Girls CODE, Sofia served as a math teacher, STEM instructional coach, and eventually a school principal at an all-girls middle

school in Bedford-Stuyvesant, Brooklyn. In addition to being an EdTech leader, Sofia is an avid DIYer. Her projects are displayed in her home in Jackson, Mississippi, and in a James Beard Award nominated African restaurant, which she co-owns with her husband.

### Raspberry Pi Coolest Projects 2023 - Online and On the Ground

In its 11th year, Coolest Projects 2023 hosted 5,800 participants from 37 countries on June 6th. The top five participant countries were India, the United Kingdom, Indonesia, Turkey, and the United States. Young creators made everything from platformer games to robotic arms and built projects to help their communities, protect the environment, or just for fun. The livestream showcase event celebrated participants and the power of digital making. The showcase was viewed by thousands around the world who tuned in to hear from inspirational VIP judges and see the judges' favorite projects.

The average age of participants was 12 – which Broadcom Foundation views as the sweet spot for STEM engagement – and 47% of participants were girls. An inspiring number of young people described their projects as relating to, or solving, important social issues. 536 projects were submitted as 'helping the community' and 664 projects as 'helping the environment'. The 'Smart Farm' project was the *Broadcom Coding with Commitment*<sup>®</sup> favorite for 2023.



Sofia Mohammed



Raspberry Pi Buskers Coding



## VIII Celebrated Programs in Coding cont.

### Girl Scouts of Orange County Expand Coding Presence at Santa Ana Lab

As the founding member of Girl Scouts of Orange County's STEM Consortium, Broadcom Foundation's support over seven years has helped young women learn the importance of STEM learning in their everyday lives. This year the Foundation provided capital to create a new GSOC Raspberry Pi learning lab in Santa Ana, a highly underserved community in Orange County. Other programs include a Mechanical Engineering badge event for Girl Scout Brownies, "Coding for Good" app development series for Girl Scout Juniors and Cadettes, and a new series for Girl Scout Juniors in which they learned coding basics, game design, and app development. Girls saw their model rockets fly high in Girl Scouts' Rocking' Rockets launch and learned about the chemistry of baking in a new program for Girl Scout Cadettes, Seniors, and Ambassadors. GSOC's 6th annual STEM Expo brought 200 Girl Scout Juniors and Cadettes together for an afternoon of hands-on STEM activities and exploration.

### Coding in Spanish: El Sol Elementary and Code Club San Miguel de Allende

Raspberry Pi Foundation is making headway in Spanish-speaking communities with programs underpinned by our learning content in Latin American Spanish. It delivered a re-launch of the dual-immersion program, Cultura con Raspberry Pi, at El Sol Academy in Santa Ana, California, and is also supporting La Biblioteca Publica in San Miguel de Allende, Guanajuato, Mexico, through their third cohort of 'Intro to Scratch and Python'. The Broadcom Foundation continues to expand these programs through the University of California, Irvine (UCI) with the intent to increase Spanish language content and programs on the Raspberry Pi Foundation website. In December, Paula Golden observed the second-year program at the Biblioteca Publica's computer lab, and she met with leadership and staff who expressed their enthusiasm for the program and its implication for expanding the reach of the public library. Club director Daniel Herrera Vazquez is working closely with the UCI FABLab team on curricula.



OC Girl Scouts participate in the OC Mentor Match program



Students learn Scratch and Python at the San Miguel Code Club in Guanajuato, Mexico



## VIII Celebrated Programs in Coding cont.

### TGR Foundation Expands Code Clubs

With more than ten education sites in Southern California alone, TGR Foundation expanded its computer science network to increase computer science skills among under-resourced students and grow the future STEM workforce with skilled candidates through its afterschool courses, educator training, and student coding clubs.

With support from Broadcom Foundation, TGR Foundation was able to provide Raspberry Pi training to 21 educators in the Anaheim area this year and help them create Code Clubs in their organizations. TGR also introduced the Raspberry Pi and computer science programming to over 500 students in grades 5 through 12 from Anaheim school districts.

### South Africa Communiversity Celebrates Pi

As Broadcom Foundation's first model for coding and a recipient of an in-kind donation of Raspberry Pi's and senior engineer expertise, Communiversity in South Africa continues to flourish and celebrates twelve years of empowerment through digital literacy. Since Communiversity opened its doors in Vrygrond, a former squatter camp, to help young people from high-risk communities enter technical and other colleges/universities or to gain meaningful employment, over 1,800 students have been through its program with favorable results. The number and percentages of students who have successfully graduated from the four-month, community-based program and who have

gained higher education entry (after having previously been turned down or who had not even tried to gain admittance) or much-needed employment is dramatic, currently averaging between 96% and 98% of each intake. In addition, the Communiversity program reinforces a deep commitment to future goals for its students - so there is little college dropout. The Foundation is supporting Communiversity's Raspberry Pi coding classes in Tokai, Khayelitsha, and Hanover Park throughout Cape Town, South Africa, to help young people from high-risk communities gain the purposefulness, confidence, and skills needed for college entry.



TGR CODE



Communiversity students working on completing a 4-month digital literacy program in Cape Town, South Africa



## IX Community Partnerships and Global Citizenship



### Women Engineers from Broadcom Inc. Allentown Inspire at WISE Forum

Female Engineers from Broadcom Inc. were on hand at the WISE (Women in Science & Engineering) Forum in Allentown, Pennsylvania, to inspire female students interested in pursuing a career in science, technology, engineering, art, and math. The annual event gives students the chance to mingle and network with female professionals in STEAM and learn from a group of panelists as they discuss their personal and professional journeys with STEAM. Paula Golden made virtual remarks at the Forum to encourage young women to become engineers “and help make the world a better place.” Broadcom Foundation is partnering with Broadcom Fab in Breinigsville, PA, to work with the DaVinci Museum in Reading, Pennsylvania, to promote careers in engineering.

### Fort Collins’ Harmony Tech Team Celebrates Girls in STEM

Broadcom Foundation was proud to once again partner with employees of Broadcom Inc. to participate in the 17th annual Harmony Tech Camp to inspire girls to follow their passion and develop talent that can lead to meaningful careers in STEM. Ninety sixth-grade girls participated in the Tech Camp, completing projects in chemistry, electronics, and programming. Women working in science and engineering fields spoke to the girls about their STEM careers. As a gift from the employees, each girl received an inspirational book, *Women in Science: 50 Fearless Pioneers Who Changed the World*, by Rachel Ignotofsky.

Broadcom Inc. Engineers at WISE Forum



## IX Community Partnerships and Global Citizenship cont.

### Discovery Cube Summer Coding Programs

The Southern California Science Center's members and guests participated in a 4-week, multi-part pilot program that introduced them to the basics of coding and programming using the free, online, block-programming platform, Scratch. Throughout the year, students who enrolled in Code Club Cubed met once a week to learn the basics of Scratch and participate in project modules designed by Raspberry Pi Code Club. Then they met with their peers to discuss projects to work on together and received assistance from skilled instructors. A big part of coding is creating code, testing, seeing where it failed, and going back in to rebuild and start the process over (like the engineering design process). The Club instructors remind the new coders that failure is actually encouraged as part of the project-based learning process and ultimately builds stronger resilience, character, and coding experience.

After the club members completed the first 4-week program, they were given a choice to sign up for part two. It was designed to give students a chance to

practice their coding and programming skills by creating projects that can help the planet and focusing on promoting environmental stewardship goals. The pilot program was designed to encourage parents and teachers to utilize the Science Center as a resource for technology.

### Elevate [Math]

The Silicon Valley Education Foundation's Elevate [Math] summer intervention program is designed to increase the number of 3rd through 10th graders meeting Common Core math standards. Its rigorous math curriculum also incorporates growth mindset activities, college awareness lessons, mentorship by college students and hands-on STEM Inspiration Workshops presented by local industry experts. Elevate [Math] conducted a total of 268 classes for students, and over 30 hours of professional development for 268 math teachers. Teachers were trained on curriculum, math practices, social justice and mathematics, and such educational technology platforms as Zoom, Google Classroom, and Nearpod.



Summer Code Club at Discovery Cube



# IX Community Partnerships and Global Citizenship cont.

## OctaneOC STEAM's Ahead with Resource Catalog

OctaneOC have adopted Broadcom Foundation's motto "If you can see it, you can be it" by creating an accessible catalog of STEAM events, resources, activities, and programs in Orange County for underserved kids and their families, that help spark, nurture, and sustain STEAM study and career paths.

The OctaneOC network and its Octane Foundation for Innovation has built "STEAM Ahead," a media toolkit that consolidates information about public, private, and non-profit organizations dedicated to encouraging and supporting pre-K, elementary, middle, and high school, technical school, community college, college, university, and young professional STEAM study and career exploration. The initiative brings equity to resource access, making it easier for underserved and underrepresented communities to find these resources, and

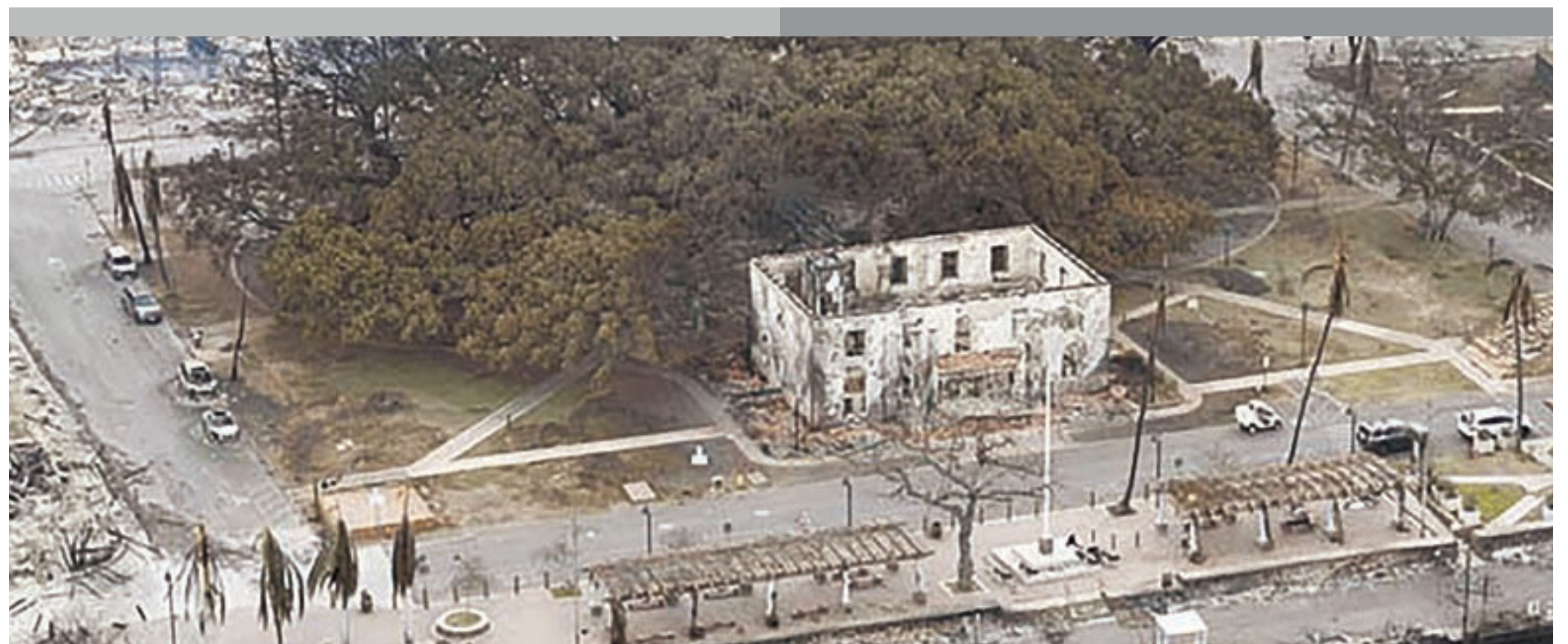
easier to connect these communities, children, and young adults with the free or affordable experiences that will encourage and sustain STEAM exploration and engagement during the formative, decision-making years.

## Foundation Outreach Worldwide: Relief to Turkey & Syria, Tennessee, Maui, and Morocco

Each year Broadcom Foundation sets aside a reserve to assist communities devastated by a natural disaster. Through following charitable organizations, Broadcom Foundation provided relief funding to earthquake-torn regions in Europe, the Middle East, and Africa (EMEA) through the International Medical Corps and weather-driven tragedies in Tennessee and Hawaii through the Salvation Army and Maui Strong.



Young coder demonstrates his creation



Maui, Lahaina. Banyon Tree is model of strength for the community



## X Special Contributions



### Broadcom Foundation-Sponsored Science Fair Featured Disney+ Series

A Broadcom Foundation-sponsored Science Fair was featured in a popular television series produced by National Geographic. On December 10, 2023, Hulu and Disney+ launched a new four-part documentary called the new Science Fair series, which featured African Science Buskers Festival director Knowledge Chikundi and a star student, Memory Bvungo. Nearly 2,000 teenagers from over 80 countries work to solve complex and pressing issues using science; they compete for the chance to participate in the Regeneron International Science & Engineering Fair while handling the joys and heartache of being a teen. African Science Buskers Festival hosted the director and camera crew at their Broadcom Foundation-sponsored fair, where the team followed Knowledge and Memory on the initial stages of her journey and again at ISEF in Texas.

### Broadcom Foundation Remains in Top 100

Broadcom Foundation remains a Top 100 supporter for Irvine Public Schools Foundation, which was its first funding partner in 2009. The Top 100 list represents some of the most influential organizations in the county, all dedicated to ensuring the future of the community through investments in education. Orange County, California, is one of the fastest growing and most diverse business sectors in the United States, creating a high demand for skilled and dynamic talent to support its growth. Irvine Public Schools Foundation (IPSF) continues to build bridges between academic and business communities to create opportunities for students to gain the skills, confidence, and passion required to be successful in today's competitive STEAM (Science, Technology, Engineering, Arts, Mathematics) workforce.

Disney Stars Knowledge Chikundi and Memory Bvungo



## X Special Contributions cont.



Broadcom Inc.'s Michael Melillo accepts award from Bervin Harris at the RYC gala

### Paula Golden Named Co-Chair of National STEM Challenge Advisory Council

Paula Golden was tapped to co-chair the National STEM Challenge Advisory Council, precursor to the upcoming National STEM Festival presented by EXPLR in partnership with the U.S. Department of Education. The nationwide challenge is designed to cultivate creativity, critical thinking, and a love for STEM among middle and high school students. One hundred and 50 students will be selected from the states. The 2024 National STEM Festival: YOU Belong in STEM will be a key Biden-Harris Administration effort to promote STEM education and careers in order to advance equity and excellence for all students. The national challenge and festival offer students the platform to showcase their scientific projects, innovations, inventions, and research. Select STEM Champions from fifty states, the District of Columbia, and U.S. territories will have the opportunity to exhibit their projects in Washington, DC, where they can also engage with scientists, engineers, science communicators, and experts from various fields.

### Paula Golden and Michael Melillo Honored at Renaissance Youth Center Gala

Renaissance Youth Center (RYC) honored Broadcom Inc. and the Broadcom Foundation at its 2023 Gala for their support for the premier afterschool resource in the South Bronx, where over 4,000 young people are enriched by STEAM education, music, tutoring, and civic engagement programming each week. Broadcom Foundation president Paula Golden and Michael Melillo, Senior Director of Broadcom Network Management Software, helped bring coding into the RYC afterschool space and connected coding with the community through *Broadcom Coding with Commitment*<sup>®</sup>. The RYC staff and students embraced digital learning and its value as a 21st Century+ skill that can be used to solve the 17 Sustainable Development Goals at the community level. The RYC Music With A Message (MWAM) Band was on hand to entertain several hundred guests in attendance, reprising their original piece "Let's Work Together" that was inspired by the 17 Sustainable Development Goals and encouraging young people to make a difference to their own environments and lives.

### Broadcom Foundation Staff Welcomes Melissa DeGandi

Broadcom Foundation was thrilled to add Melissa DeGandi to the team. In her role as Program Coordinator, Melissa's expertise in audit, analytics, systems, and reporting has helped elevate several aspects of the Foundation's operational functions. In particular, the addition of Melissa has enabled the Foundation to bring social media and communications exclusively in-house and significantly grow the online reach.



Paula Golden and Bervin Harris celebrate at the Renaissance Youth Center annual gala



## VII Broadcom Foundation Communications

Branding is important to Broadcom Foundation's philanthropic initiatives and informing the public – especially students, educators, and parents. In 2022, communications were bolstered to include Broadcom Inc. employees through a cadence of emails that informed them of Foundation news and ways to get involved as volunteers.

### **Broadcom Foundation Website Gets Fresh Look to Elevate New Message**

In December, Broadcom Foundation's Communications Team executed a soft launch of a long overdue new website. The new website features better visuals, flexible navigation, and fresh messaging to reach new audiences. The site features quick links to free coding resources and access to the Foundation's strategic partners. The website is now fully focused on the Foundation's Core Value Proposition that basic coding is a 21st Century+ skill that girls, under-resourced, and underrepresented youth need to become digitally literate and compete for highly skilled jobs in emerging industries built on technologies of the future.

### **New Tools Employed to Expand Foundation's Reach in Social Platforms**

In addition to developing a Universal Calendar and Uniform Photo Archiving System to enhance strategic planning and coordination, the Communications Team put into place myriad social networking tools to expand market penetration and elevate the message of the Foundation. It implemented Internal Social Media Systems for media management through Hootsuite and graphics through Canva. The team designed an online survey to collect employee volunteer and student award winner data and created a Marketing Toolkit with new logos, forms, promotions, and graphics. The immediate result was dramatic increases in Foundation exposure for the foundation brand: 448% increase in Facebook reach; 75% increase in Instagram; and 41% increase in LinkedIn users from January to November.



## XII 2023 Broadcom Foundation Funding Report

*Message from Broadcom Foundation Chief Financial Officer Maria Wronski*

Broadcom Foundation is a nonprofit public benefit corporation organized under the California Nonprofit Public Benefit Corporation Law, funded solely by Broadcom Corporation. Broadcom Foundation funds qualified organizations engaged in educational, scientific, and philanthropic activities. Broadcom Foundation made gifts of more than \$3.5 million in 2023.

Pursuant to California Corporations Code, Section 6321, included as Section XII in this Annual Report are the following audited financial statements:

- A Statement of Broadcom Foundation's Assets and Net Assets - Modified Cash Basis, as of December 31, 2023; and
- A Statement of Broadcom Foundation's Support, Revenues and Expenses - Modified Cash Basis, for the year ending December 31, 2023.

Additional information can be found on the IRS Form 990, which upon filing, will be made available on Broadcom Foundation's website at [www.broadcomfoundation.org](http://www.broadcomfoundation.org). We have no transactions or information to report pursuant to California Corporations Code, Section 6322, regarding self-dealing, indemnifications, or advances between Broadcom Foundation and any director, officer, or holder of more than ten percent (10%) of the Foundation's voting power.

Respectfully submitted,



Maria Wronski  
Chief Financial Officer  
Broadcom Foundation

Broadcom Foundation Chief Financial Officer Maria Wronski









# Broadcom Foundation Financial Statements - Modified Cash Basis

*For the Year Ended December 31, 2023*

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Board of Directors  
Broadcom Foundation  
Irvine, California

## INDEPENDENT AUDITOR'S REPORT

### Report on the Audit of the Financial Statements

#### Opinion

We have audited the financial statements of Broadcom Foundation, which comprise the statement of financial position – modified cash basis as of December 31, 2023, and the related statement of support, revenues, and expenses – modified cash basis, and the statement of functional expenses – modified cash basis for the year then ended, and the related notes to the financial statements.

In our opinion, the accompanying financial statements present fairly, in all material respects, the assets and net assets of Broadcom Foundation as of December 31, 2023, and its revenue and expenses for the year then ended in accordance with the modified cash basis of accounting described in Note 2.

#### Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of Broadcom Foundation and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Emphasis of Matter – Basis of Accounting

We draw attention to Note 2 of the financial statements, which describes the basis of accounting. The financial statements are prepared on the modified cash basis of accounting, which is a basis of accounting other than accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

#### Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the modified cash basis of accounting described in Note 2, and for determining that the cash basis of accounting is an acceptable basis for the preparation of the financial statements in the circumstances. Management is also responsible for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about Broadcom Foundation's ability to continue as a going concern for one year after the date that the financial statements are issued. Management has no substantial doubt about Broadcom Foundation's ability to continue as a going concern.

#### Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Broadcom Foundation's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about Broadcom Foundation's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

#### Other Information Included in the Annual Report

Management is responsible for the other information included in the annual report. The other information comprises Broadcom Foundation's activities during the year 2023 and includes the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

#### Report on Summarized Comparative Information

We have previously audited the Broadcom Foundation's December 31, 2022, financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated April 18, 2023. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2022, is consistent, in all material respects, with the audited financial statements from which it has been derived.



Irvine, California  
April 23, 2024



# Broadcom Foundation

## Statement of Financial Position - Modified Cash Basis

December 31, 2023

(With comparative information for the prior year)

	<u>2023</u>	<u>2022</u>
<b>ASSETS</b>		
Cash and cash equivalents (note 3)	\$ 11,091,049	9,741,423
Investments (note 3)	<u>98,992,181</u>	<u>96,369,341</u>
Total Assets	<u>\$ 110,083,230</u>	<u>106,110,764</u>
<b>NET ASSETS</b>		
Net assets:		
Without donor restrictions	\$ 110,083,230	106,110,764
With donor restrictions	<u>—</u>	<u>—</u>
Total Net Assets	<u>\$ 110,083,230</u>	<u>106,110,764</u>

See accompanying notes to financial statements - modified cash basis



# Broadcom Foundation

## Statement of Support, Revenues and Expenses - Modified Cash Basis

For the Year Ended December 31, 2023  
(With comparative information for the prior year)

	<u>2023</u>	<u>2022</u>
<b>Support and revenues:</b>		
Investment income (loss), net (note 4)	\$ 9,083,123	(16,237,648)
Total support and revenues	<u>9,083,123</u>	<u>(16,237,648)</u>
<b>Expenses:</b>		
Program services:		
STEM	4,636,258	5,694,555
Supporting services:		
Management and general	<u>474,399</u>	<u>481,558</u>
Total expenses	<u>5,110,657</u>	<u>6,176,113</u>
Increase (decrease) in net assets without donor restriction	3,972,466	(22,413,761)
<b>Net assets at beginning of year</b>	<u>106,110,764</u>	<u>128,524,525</u>
<b>Net assets at end of year</b>	<u>\$ 110,083,230</u>	<u>106,110,764</u>

See accompanying notes to financial statements - modified cash basis



# Broadcom Foundation

## Statement of Functional Expenses - Modified Cash Basis

For the Year Ended December 31, 2023  
(With comparative information for the prior year)

	Program Services	Supporting Services	Totals	
	STEM	Management and General	2023	2022
Grants	\$ 3,596,536	-	3,596,536	4,801,850
Salaries and benefits	578,077	263,917	841,994	787,972
Professional services	23,412	24,277	47,689	41,151
Administrative services	24,203	72,611	96,814	95,400
Office, supplies, and insurance	102,872	49,433	152,305	70,516
Travel and expense	44,502	6,191	50,693	51,386
Program outreach	186,388	-	186,388	114,599
Communications	80,268	-	80,268	147,507
Excise tax	-	57,970	57,970	65,732
Total expenses	\$ 4,636,258	474,399	5,110,657	6,176,113

See accompanying notes to financial statements - modified cash basis



# XIV Notes to Financial Statements – Modified Cash Basis

Year Ended December 31, 2023

## (1) Nature of Organization

The Broadcom Foundation (the “Foundation”) was incorporated on April 28, 2009. The Foundation is a 501(c)(3) California nonprofit public benefit corporation organized and operated exclusively for charitable, scientific, and educational purposes.

## (2) Summary of Significant Accounting Policies

### (a) Basis of Accounting

The Foundation prepares its financial statements on the modified cash basis. Under this basis, revenue is recognized when collected, rather than when earned (except for unrealized gains or losses in investments, which are recognized when changes in investment fair values occur). Expenses are recognized when paid, rather than when incurred. Consequently, interest and dividends receivable, accounts payable, and accrued liabilities are not included in the accompanying financial statements.

### (b) Use of Estimates

The preparation of financial statements in accordance with the modified cash basis of accounting requires management to make estimates and assumptions that affect the reported amounts of assets and net assets and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

## (c) Comparative Data

The information included in the accompanying financial statements for the prior year has been presented for comparison purposes only and does not represent a complete presentation in accordance with generally accepted accounting principles.

## (d) Cash and Cash Equivalents

Cash equivalents are short term, interest bearing, highly liquid investments with original maturities of three months or less, unless the investments are held for meeting restrictions of a capital or endowment nature. The Foundation maintains cash balances at several financial institutions. Deposit accounts at each bank are insured by the Federal Deposit Insurance Corporation (FDIC) up to \$250,000 per account. The balances regularly exceed those limits.



# Notes to Financial Statements – Modified Cash Basis

Year Ended December 31, 2023

## (2) Summary of Significant Accounting Policies (Continued)

### (e) Investments

The Foundation invests cash in accordance with its investment policy. Certain investments are reported at fair value. Net appreciation (depreciation) in the fair value of investments, which consists of the realized and unrealized gains or losses on those investments, is shown in the Statement of Support, Revenues and Expenses. Investment income is reported net of investment expenses. Investment accounts at each bank are insured by the Securities Investor Protection Corporation (SIPC) up to \$500,000 per account. The balances regularly exceed those limits.

### (f) Investment Policy

On April 13, 2022, the Board of Directors approved the Foundation's updated investment policy, which governs the objectives and policies, standards of prudence, and performance expectations for the Foundation's invested assets. The primary objective of the Foundation's investment fund is to attain an average return of at least six percent (6%) per year over rolling periods of ten years. The six percent return is net of management fees.

The percentage of equity investments should not exceed 75% of total invested assets at market value and the performance objective of the total equity fund investments is to achieve a return of at least eight percent (8%) over time.

The percentage of fixed income investments should not be less than 25% of total invested assets at market value and the benchmark for fixed income investments is the Barclays Intermediate Government/Credit

Index. The objective will be to outperform this benchmark over rolling periods of three-to-five years.

Investments shall have a maximum maturity of ten (10) years from date of purchase or be purchased on a yield to call or yield to put basis when the call or put date is within 10 years. Weighted Average Duration shall be between 80% and 120% of stated benchmark.

The eligible investments are U.S. Treasury Securities, United States Agency Securities from acceptable issuers, Exchange-Traded Funds/Money Market Funds/Mutual Funds, and any of the following meeting specific rating or other criteria: Municipal or Build-America Bonds, Foreign Government Bonds, Corporate Notes and Bonds, Commercial Paper, Mortgage Backed Securities and Asset Backed Securities.

### (g) Fair value

Certain assets and liabilities are reported at fair value based on a fair value hierarchy that distinguishes between assumptions based on market data (observable inputs) and the Foundation's assumptions (unobservable inputs). Determining where an asset or liability falls within that hierarchy depends on the lowest level input that is significant to the fair value measurement as a whole.

An adjustment to the pricing method used within either Level 1 or Level 2 inputs could generate a fair value measurement that effectively falls in a lower level in the hierarchy. The hierarchy consists of three broad levels as follows:



# Notes to Financial Statements – Modified Cash Basis

Year Ended December 31, 2023

## (2) Summary of Significant Accounting Policies (Continued)

Level 1 – Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets.

Level 2 – Pricing inputs are other than quoted prices in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies.

Level 3 – Pricing inputs are unobservable for the instrument and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

In some instances, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such instances, an instrument's level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument, as well as the effects of market, interest, and credit risk.

Instruments with readily available active quoted prices or for which fair value can be measured from actively quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that changes in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in the Foundation's financial statements.

## (h) Net Assets

The financial statements report net assets and changes in net assets in two classes that are based upon the existence or absence of restrictions on use that are placed by its donors, as follows:

### *Net Assets without Donor Restrictions*

Net assets without donor restrictions are resources available to support operations. The only limits on the use of these net assets are the broad limits resulting for the nature of the Foundation, the environment in which it operates, the purposes specified in its corporate documents and its application for tax-exempt status, and any limits resulting from contractual agreements with creditors and others that are entered into in the course of its operations.

### *Net Assets with Donor Restrictions*

Net assets with donor restrictions are resources that are restricted by a donor for use for a particular purpose or in a particular future period.



# Notes to Financial Statements – Modified Cash Basis

Year Ended December 31, 2023

## (2) Summary of Significant Accounting Policies (Continued)

Some donor-imposed restrictions are temporary in nature, and the restriction will expire when the resources are used in accordance with the donor's instructions or when the stipulated time has passed. Other donor-imposed restrictions are perpetual in nature; the Foundation must continue to use the resources in accordance with the donor's instructions.

The Foundation's unspent contributions are included in this class if the donor limited their use. When a donor's restriction is satisfied, either by using the resources in the manner specified by the donor or by the passage of time, the expiration of the restriction is reported in the financial statements by reclassifying the net assets from net assets with donor restrictions to net assets without donor restrictions. There were no donor restricted contributions for the year ending December 31, 2023.

### (i) Expense Recognition and Allocation

The cost of providing the Foundation's programs is summarized on a functional basis in the Statement of Functional Expenses. Expenses that can be identified with a specific program or support service are charged directly to that program or support service. Costs common to multiple functions have been allocated among the various functions benefited using a reasonable allocation method that is consistently applied, as follows:

- Salaries and wages, benefits, payroll taxes, and cell phone expenses are allocated based on a detailed analysis of job function and activity.
- Office, equipment, and supplies are allocated based on employee efforts supporting programs.

Management and general expenses include those costs that are not directly identifiable with any specific program, but which provide for the overall support and direction of the organization.

### (j) Tax Status

The Foundation qualifies as a tax-exempt organization under Section 501(c)(3) as described in Sections 509(a)(1) and 170(b)(1)(A)(iv) of the Internal Revenue Code (the "Code") and Section 23701(d) of the California Revenue and Taxation Code.

Accordingly, there is no provision for federal income or California franchise taxes. Income determined to be unrelated business taxable income (UBTI) would be taxable. The Foundation is subject to a 2% federal excise tax on net taxable investment income because it is classified as a Private Foundation under the Internal Revenue Code. The excise tax is reduced to 1% if certain requirements are met. Accordingly, a payment for excise tax has been reported in the accompanying financial statements.

The Foundation evaluates its uncertain tax positions, if any, on a continual basis through review of its policies and procedures, review of its regular tax filings, and discussions with outside experts.



# Notes to Financial Statements – Modified Cash Basis

Year Ended December 31, 2023

## (3) Cash, Cash Equivalents, and Investments

Cash, cash equivalents, and investments held by the Foundation are reported in the accompanying financial statements as follows at December 31, 2023:

Cash and cash equivalents	\$ 11,091,049
Investments	<u>98,992,181</u>
Total cash and investments	<u>\$ 110,083,230</u>

Cash and cash equivalents include demand deposits and sweep accounts, which do not exceed federally insured limits at December 31, 2023. Also included in cash and cash equivalents are Mutual Fund Money Market funds, which are not federally insured.

Fair values of investments at December 31, 2023 are categorized as follows:

Description	Fair Value	Markets for Identical Assets (Level 1)	Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Equity Securities	\$ 36,413,472	36,413,472	-	-
Preferred Securities	1,913,395	418,955	1,494,440	-
Mutual Funds/Exchange Traded Funds	13,122,246	13,122,246	-	-
Short Term Corporate Bonds	1,089,789	-	1,089,789	-
Short Term U.S. Treasury Securities	20,109,639	20,109,639	-	-
U.S. Treasury Securities	8,517,215	8,517,215	-	-
Agency Securities	3,392,119	-	3,392,119	-
Corporate Bonds – Consumer Discount	1,646,140	-	1,646,140	-
Corporate Bonds – Financial	6,638,462	-	6,638,462	-
Corporate Bonds – Auto	384,136	-	384,136	-
Corporate Bonds – Healthcare	2,134,183	-	2,134,183	-
Corporate Bonds – Media	3,255,142	-	3,255,142	-
Corporate Bonds – Energy	376,243	-	376,243	-
Total	<u>\$ 98,992,181</u>	<u>78,581,527</u>	<u>20,410,654</u>	<u>-</u>

For fair value measurements using significant other observable inputs (Level 2), the market approach was used in determining the fair values of each class of assets or liabilities. These are frequently traded between willing buyers and sellers and are, therefore, market priced.



# Notes to Financial Statements – Modified Cash Basis

Year Ended December 31, 2023

## (4) Investment Income (Loss)

Investment income for the year ended December 31, 2023 consisted of the following:

Interest	\$	1,904,184
Dividends		1,103,713
Realized gain		2,290,072
Unrealized gain		4,205,808
Less: investment fees		<u>(420,654)</u>
Total Investment income (loss), net	\$	<u>9,083,123</u>

## (5) Retirement Plan

Broadcom Foundation offers a 401(k)-retirement plan for all eligible employees. Employees can contribute a portion of their salary into the plan, not to exceed Federal limitations. The Foundation offers a 100% match of each dollar contributed by eligible employees, up to the first 6% of employee's salary. For the year ending December 31, 2023, the Foundation's deferred compensation expense was \$32,100.

## (6) Liquidity and Availability

Financial assets available for general expenditure, that is, without donor or other restrictions limiting their use, within one year of December 31, 2023 are as follows:

Cash and cash equivalents	\$	11,091,049
Investments		<u>98,992,181</u>
Total financial assets		110,083,230
Less financial assets not available within one year:		
Long-term investments not intended to be spent		<u>(26,672,751)</u>
Amount available for general expenditures within one year	\$	<u>83,410,479</u>

As part of the liquidity management plan, the Foundation periodically reviews and makes changes to liquidity guidelines and asset allocation for invested assets, considering economic and market conditions. As part of their liquidity management, the Foundation invests cash in excess of monthly requirements in highly liquid cash equivalents and short-term and long-term investments. The minimum interest-bearing cash equivalent total being an estimate of ninety-days of the current fiscal year's cash needed to a year and a half's cash needs.

The guiding variables being the capital market conditions assessment of the Investment Managers and the available interest rates over the fiscal planning time frame.



# Notes to Financial Statements – Modified Cash Basis

Year Ended December 31, 2023

## **(7) Concentrations of Risk**

The Foundation's investments are subject to various risks, such as interest rate, credit, and overall market volatility risks. Further, because of the significance of the investments to the Foundation's financial position and the level of risk inherent in most investments, it is reasonably possible that changes in the values of these investments could occur in the near term and such changes could materially affect the amounts reported in the financial statements. Management is of the opinion that the diversification of its invested assets among the various asset classes should mitigate the impact of changes in any one class.

## **(8) Subsequent Events**

The Foundation evaluated events occurring subsequent to December 31, 2023 for their potential impact on the financial statements and disclosures through April 23, 2024, which is the date the financial statements were available to be issued.