Broadcom Foundation supports STEM initiatives that incorporate 21st Century skills young people need to pursue careers in science, technology, engineering and mathematics. The 2019 Annual Report is dedicated to our partners around the world who creatively encourage critical thinking, creativity, collaboration and communication through their innovative programs in STEM. These dedicated people are integral to building robust STEM Ecosystems that educate and inform the next generation of scientists, engineers and innovators.

- Henry Samueli - Chairman of the Board, Broadcom Foundation
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  For the Year Ending December 31, 2019
I Broadcom Foundation Mission

To Advance Science, Technology, Engineering and Mathematics (STEM) Education by Funding Research, Recognizing Scholarship and Increasing Opportunity.
II 2019 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 and Secretary/Treasurer

Nicolaos (Nick) G. Alexopoulos  
Vice President for Academic Research & University Relations

FOUNDATION STAFF

Dana Orsini  
Senior Manager, Foundation Communications

Carol McDonald  
Executive Administrative Assistant
March 31, 2020

Friends,

Broadcom Foundation has always strived to achieve maximum collective impact in STEM education through partnerships with dedicated stakeholders in the business, nonprofit and academic communities who share our commitment to creating a STEM-literate society. Now, with the specter of worldwide spread of COVID-19 coronavirus crisis before us, it has never been more apparent that the next generation of scientists, engineers and innovators must not only be masters of their crafts who are equipped to address a grand challenge like this pandemic, but thought leaders who advocate evidenced-based approaches to problem-solving.

During 2019, the Foundation focused on expanding partnerships with nonprofits and NGOs that focus on project-based STEM learning through science fair, coding and out-of-school education programs that promote critical thinking, creativity, collaboration and communication. Because of our belief that young men and women need to feel personally supported in their pursuit of science or engineering, the Foundation strives to build social infrastructures into its signature programs that enable students to connect with like-minded peers as well as adults.

Much of this year was also devoted to preparing to host the Regeneron 2020 International Science & Engineering Fair in Orange County. Although the coronavirus crisis has resulted in cancellation of 2020 ISEF, we salute the Society for Science & the Public, the OC, Riverside and San Diego STEM Ecosystems, Cheryl Braun and the 2020 ISEF Local Arrangements Committee, which is made up of the hundreds of people throughout Southern California. Over 2019, they made a heroic effort to bring ISEF to Orange County for the very first time and we are deeply grateful for their incredible teamwork; and we share their deep disappointment that thousands of kids will not get to participate in this inspiring event.

The Foundation has taken deep satisfaction in working with members of our parent corporation Broadcom Inc. to help shape its Corporate Social Responsibility (CSR) activities in the United States and abroad. Broadcom executives and engineers have assisted in developing programs and facilitating in-kind donations that benefit children throughout the world. They are instrumental in our mission to inspire young people to follow their passions and open innovative STEM pathways that lead them to success and fulfillment in their future careers.

Sincerely,

Henry Samueli
Chairman of the Board

Paula Golden
President
IV Broadcom Foundation Goals

• Increase the number of engineers who enter the workforce by sponsoring academic research and programs that inspire youth to pursue careers in engineering;

• Close the STEM education gap for women and underrepresented youth by creating equitable access to STEM education;

• Ensure that young people are STEM literate by advocating problem-based learning and 21st Century skills necessary for success in STEM careers;

• Improve community awareness about STEM where Broadcom Inc. employees live and work;

• Strengthen social responsibility and global citizenship through strategic collaborations with STEM stakeholders, educators and volunteers.
V  Commitment to Developing 21st Century Skills through STEM

The fields of science, technology, engineering and mathematics (STEM) are the foundational pillars of an advanced society and an important indicator of a society’s sustainability. Because of this, the primary mission of Broadcom Foundation is to promote STEM literacy and advocate equitable access to STEM education for all young people.

Broadcom Foundation programs inspire, educate and deploy the next generation of scientists, engineers and innovators who will take on the Grand Challenges of the 21st Century. The Foundation focuses its advocacy on project-based learning and team building that provide the philosophical underpinning for its signature programs: Broadcom MASTERS®, Broadcom MASTERS® International, Broadcom Presents: Design_CODE_Build, and Broadcom Foundation University Workshops.

By creating equitable access to STEM education and leveraging STEM learning opportunities for all young men and women, Broadcom Foundation strives to empower the next generation to succeed in a technology-driven global economy.
VI  Thought Leadership

Broadcom Foundation is recognized as a STEM thought leader throughout the United States and around the globe. Its commitment as a change agent in STEM education is realized through strategic funding and signature program development.

National STEM Funders Network Changes Leadership

Through its association with the National STEM Funders Network, Broadcom Foundation works with other private and corporate philanthropists in support of STEM education. Its partner, Teaching Institute for Excellence in STEM (TIES), is changing leadership this year. After 17 years of cultivating and leading an extraordinarily impactful organization that has brought together partners from a wide range of disciplines and industries in order to reimagine STEM education, TIES founder Jan Morrison is shifting her role to focus on Global STEM Design. Marc Siciliano, a STEM consultant for TIES since 2008, will assume day-to-day oversight of over 30 consultants who design STEM curriculum, STEM schools and community-based STEM learning opportunities.
VI Thought Leadership (Continued)

STEM Learning Ecosystems

STEM Learning Ecosystems provide the architecture for cross-sector learning, offering all young people access to STEM-rich learning environments so they can develop 21st Century skills through engagement in science, technology, engineering and math. The STEM Learning Ecosystem Initiative, of which Broadcom Foundation is an integral part, is making steady inroads into ensuring STEM literacy for all: there are now 89 STEM Learning Ecosystems throughout the US, Mexico and Israel, impacting over 33 million PreK-12 children through over 1,200 informal and out-of-school time partners, 1,870 school districts in urban, rural and suburban areas, and over 2,184 philanthropic, business & industry partners.

Foundation SSP Advocate for Science Fair at New Orleans CoP

Broadcom Foundation and the Society for Science & the Public teamed up at the New Orleans Community of Practice to advocate for science fairs as an integral part of strong STEM Learning Ecosystems. In an effort to help connect the ecosystems to the Society’s affiliated fair network, Society CEO Maya Ajmera and Broadcom Foundation President Paula Golden made a presentation highlighting the importance of the science fair as a project-based learning experience and showcased the advantages of affiliated fairs working together with their counterparts in the
VI  Thought Leadership (Continued)

STEM Learning Ecosystem. By linking up with the larger STEM community, affiliated science fairs can increase their outreach and build relationships with local schools and after-school programs in the STEM ecosystem.

Children Now Works to Integrate Oversight of Bay Area STEM Ecosystem Network

In its second year of oversight, Children Now has expanded the Bay Area STEM Ecosystem to a cross-sector network of organizations throughout the San Francisco Bay Area that are working more closely together to ensure that youth have the STEM background they need to enter today’s workforce. Initially focused on providing STEM experiences to youth, educators and families in South San Francisco, the Bay Area STEM Ecosystem now includes the East Bay STEM Network in Alameda and Contra Costa Counties, and Region 5 STEAM, the ecosystem serving much of Silicon Valley.

The Bay Area STEM Ecosystem is deepening its relationship with colleges and universities in the region, including San Francisco State University, Cal State East Bay, San Jose State University, Skyline College and Foothill College. The Bay Area STEM Ecosystem met at Skyline College in June and held its fall meeting at the Krause Center for Innovation on the Foothill College campus.
VI  Thought Leadership (Continued)

The Bay Area STEM ecosystem has been selected as one of four regional STEM ecosystems (along with Pittsburgh, Chicago and New York) to participate in STEM PUSH Network, a National Science Foundation-funded project that is working with equity-focused higher education institutions, educational organizations and corporations to broaden the participation of underrepresented groups in STEM fields.

OC STEM Strengthens the Education Pipeline

The OC STEM Initiative continued to strengthen its formidable educational pipeline through a robust collaborative network of public and private partners. Housed at the UCI Henry Samueli School of Engineering, under the leadership of Leyla Riley, OC STEM utilizes the university’s STEM subject matter experts, campus facilities, and research and development activities.

A program of note is the Girls Maker Academy, developed to increase the number of middle-school girls participating in engineering and computer science summer programs by combining an introduction of high-tech tools such as 3D printers, computer-aided design and CO2 lasers with a mentoring component between female engineering and computer science college students and the girls.
VI Thought Leadership (Continued)

A retrofitted Airstream trailer now serves as a mobile fabrication space to provide students and educators with training, resources and support needed for hands-on STEM learning and making. It also provides a versatile, collaborative space for experimentation with tools and technology that expose students to a wide variety of STEM-related careers and disciplines.

UCI is also developing a leadership development program that recruits, hires and trains undergraduate STEM majors to serve as role models and mentors for K-12 outreach programs. By pairing STEM undergraduates with K-12 students in both formal and informal educational settings, the program reinforces college students' enthusiasm for their chosen majors and inspires youth to follow in their footsteps.

Cal State East Bay’s Summer of Code

Broadcom Foundation supported the launch of the Virtual Reality Engineering Summer Camp (VRES Camp) at Cal State East Bay’s Institute for STEM Education in Hayward, California. VRES is a model summer program that introduces underrepresented high school students to programming, coding and virtual reality simulation. The goal of the camp is to promote interest and excitement in STEM, foster a desire to pursue a college degree, and open the door to STEM professions for underrepresented youth.
VI Thought Leadership (Continued)

The 15 participants of the VRES Camp combined demonstrations, in-class discussions, projects, site visits, “play” time and presentations by industry professionals. In addition to a visit by Broadcom Foundation President Paula Golden, the program hosted lectures by professionals from Turner Construction, RAD Urban, Spire Consulting Group, SANVEO, Microdesk, and Fisk Electric.

CalSTEM Initiative in Fresno

With support from the Broadcom Foundation, the Central Valley STEM Network has been under the leadership of the Fresno County Superintendent of Schools. With guidance from Children Now and the California STEM Network, the Central Valley STEM Network solidified a core group of dedicated professionals from educational and non-profit agencies committed to working collaboratively to advance STEM education in the region.

The Central Valley STEM Network identified five network goals to work on in the coming year: leverage the unique strengths of the collective organizations to address the needs of underserved groups with particular emphasis among girls and kids of color; strengthen opportunities between agencies to continue support for educators and students; increase family and parent engagement to demystify the term STEM; collectively seek
VI Thought Leadership (Continued)

funding to promote STEM in the area; and act as an incubator with temporary task forces/committees to support the needs of the STEM network attending agencies.

Israel STEM Ecosystem Update

The Israeli STEM Ecosystem continues to thrive and grow with support from the Samueli, Rashi, Broadcom and Carasso Foundations, among others. TIES president Jan Morrison is spearheading the initiative that focuses on creating a STEM pipeline for workforce in Israel. The model of US STEM Ecosystems is being emulated in Israel’s southern city of Be’er Sheva, a community with many challenges, but it is rich in diversity, potential resources and human capital. Broadcom Foundation is encouraging TIES and has facilitated relationships between the new administration at Tel Aviv University to assist in ecosystem development.

A highly successful Communities of Practice took place this spring with incredible participation by stakeholders throughout Israel that resulted in neighborhood enthusiasm for cooperative collaborations. Broadcom MASTERS International delegate Jessica Soham addressed the CoP and shared her experience as a Broadcom MASTER in Phoenix this spring.
Under the direction of Dr. Nicolaos Alexopoulos, former Dean of the UCI Henry Samueli School of Engineering, Broadcom Foundation supports multidisciplinary workshops among diverse graduate students from participating universities. The workshops provide them with a unique opportunity to break away from traditional research modalities and apply 21st Century skills to complex futuristic problems requiring collaboration among different disciplines for resolution. The host university rotates annually, providing students from different countries with the opportunity to expand their global awareness and forge professional contacts throughout the world.

University Fellowships

UCI Fellowships

The Broadcom Foundation’s support of UCI Fellowships at CalIT2 enables graduate students at the University of California at Irvine with opportunities to carry on research with highly acclaimed faculty associated with the Henry Samueli School of Engineering. Fellows have presented at the 2020 IEEE International Symposia & USNC/URSI National Radio Science Meetings. They have contributed to papers

UCLA First Year Fellowships

The Broadcom Foundation’s First Year Fellowship enables graduate students at the UCLA Samueli School of Engineering and Applied Science to focus on their research in integrated circuits and embedded systems without the financial burden of graduate school. Over the course of the 2019 academic year, twelve students were awarded the First Year Fellowship. Recipients of the fellowship have published papers highlighting their groundbreaking research and its diverse applications, including research on a new type of sensors that may enable the label-free imaging of living cells; wireless power transfer between distributed modules for biomedical implants; an always-on ultra-low power (ULP) wake-up receiver and a two-stage hybrid power management unit with a highly efficient novel ON-OFF low dropout regulator; and implications of digital spur cancellation on wireline and wireless applications.
VII STEM University  (Continued)

Special Thanks to the Founders of KKT Workshop

With deep sadness and profound gratitude, the Broadcom Foundation discontinued its partnership with the KKT Workshop this year. The KKT Workshop was the brainchild of three world-renowned academicians in the field of networking and mixed signal technology – Professor Tadahiro Kuroda of Keio University in Japan, Professor Zhihua Wang of Tsinghua University in China, and Professor Hoi-Jun Yoo of Korea Advanced Institute of Science and Technology (KAIST) in Korea. KKT leadership inspired the model for Broadcom Foundation’s other successful university workshops. Thank you, Kuroda-san, Zhihua, and Jun, for your vision and commitment to STEM!

2019 Asia Pacific University Student Workshop in Taiwan

Hosted by the National Chiao Tung University, the 2019 Asia Pacific University Student Research Workshop took place in Hinschu, Taiwan, during April. The workshop is an international, interdisciplinary partnership between the National Chiao Tung University, University of Hong Kong, and University of California, Irvine, with guest faculty and students from Alabama A&M University and University of Pennsylvania.
Twenty-two graduate students with diverse backgrounds and varied academic disciplines engaged in intense, team-driven innovation activities and discussions to tackle how society might expand the means and methods to develop SMART cities and enhance the quality and performance of urban services in energy, transportation, health and public utilities. The Asia Pacific University Student Research Workshop was designed to rapidly fill knowledge gaps and unite industry and academia with collaborative research and development to advance SMART city solutions. Social and cultural events integrated into the program included a visit to 101 Taipei, the National Palace Museum, and a raft-building competition at Sun Moon Lake to build teamwork skills, lasting friendships and enhance the students’ professional and personal growth.

2019 EMEA University Student Workshop in India

In its third year, the EMEA University Student Research Workshop on Brain-Inspired Computing and Technologies was hosted in New Delhi by the Indian Institute of Science, Bangalore during October and featured seven PhD students from each of the following prestigious institutions: Indian Institute of Science, Bangalore; Imperial College London; Tel Aviv University; University College Dublin; and our new partner, University of Groningen in the Netherlands.
The workshop also featured a range of talks from leading scientists and academicians, including a morning keynote by Professor Ashutosh Sharma, Secretary of India’s Department of Science and Technology; Professor C V Seshadri, Chair Professor at the Department of Chemical Engineering at the Indian Institute of Technology, Kanpur; Greg Washington, Dean of the Henry Samueili School of Engineering at UC Irvine; and Nicole Washington, MS, Director of Innovation and Growth, OCTANE, in Orange County. Social events and activities included visits to cultural and scientific venues in Delhi and an excursion to Agra to visit the Taj Mahal, all integrated into the program to establish long-term friendships and collaborations between the students and enhance their professional and personal growth.

**STEM Pathways to University**

The Foundation supports OC STEM through its leadership at the UCI Henry Samueili School of Engineering to provide STEM programs for over 1,000 students from low-income communities through FABcamp, the MESA Schools Program and The Girls Maker Academy. Additionally, 23 out of 27 Orange County school districts have participated in OC STEM’s teacher professional development programs such as the OC STEM Ecosystem Institute. The school successfully expanded the reach of its Mobile FABLab to meet the demand for programs and expand outreach efforts.
UCI INSPIRE/ASPIRE

INSPIRE (Access Summer Program to Inspire Recruit and Enrich) and INSPIRE (Innovative Network for Student Participants to Improve Retention in Engineering and Computer Science) are two-week summer programs designed to ignite the interest and expand skills of students from low-resource communities to successfully pursue a university education in STEM fields. This summer 66 students from 43 community colleges and high schools throughout California came to UC Irvine to learn microcomputing via the Raspberry Pi, coding, computer-aided design, and how to use 3D printers and laser cutters to fabricate their own designs. The students worked in teams of two to create their own inventions using the Raspberry Pi, which they presented at the program’s closing symposium. The students also had the opportunity to experience UC Irvine and hear from faculty, students and staff in the Henry Samueli School of Engineering and the Donald Bren School of Information and Computer Sciences about planning for college and making decisions on majors best suited for them.

FABCamp at UCI

For the seventh consecutive summer, FABcamp offered 165 middle-school students between sixth and ninth grades the opportunity to learn about engineering disciplines through coding, fabrication and prototyping technologies in 6 week-long
sessions. The Broadcom Foundation provided resources for 30 scholarships to underserved students from Santa Ana, Anaheim and Westminster.

In 1.0 beginner’s level camp, students engaged in hands-on projects that incorporate a design-build-test element. By the 3.0 advanced level camp, students took a deeper dive into the Raspberry Pi by learning how to program and operate a digital camera, DC motors and a variety of sensors. Working in teams of two to three, they designed, fabricated and coded their own projects and showcased them at the end of the week. FABcamp can now rely on its enthusiastic alumni (camp participants from previous years) returning as interns to provide a unique perspective, mentorship and assist counselors in a variety of roles.

**MIT Summer Makeathon**

*Science and Us* is a student-led organization helping teens discover science communication, media, policy, and related fields. They held their first three events in 2019 and in August, with support from Broadcom Foundation, they had attendees from as far as Singapore to as close as Boston!

The Makeathon panelists worked with students to learn more about science communication. As an inspired and inspiring team, *Science and Us* helped participating students to learn about fields they were unfamiliar about and put new knowledge into practice.
Broadcom Foundation Salutes the ISEF 2020 Local Arrangements Committee

Although ISEF 2020 was cancelled due to the COVID-19 coronavirus crisis, Broadcom Foundation partnered with the Irvine Public Schools Foundation (IPSF) to help facilitate the Local Arrangements Committee (LAC) for the Regeneron International Science & Engineering Fair (ISEF 2020). Under the leadership of Cheryl Braun from IPSF, over fifty LAC members representing industry, academia and non-profits hail from Orange, Los Angeles, San Diego, Riverside, San Bernardino and Ventura Counties participated in this herculean planning process. We salute them all!

Dana Orsini, Broadcom Foundation’s Senior Communications Manager, created the LAC communications team and a communications plan leading up to ISEF 2020. This committee has provided promotional materials and presentations at multiple events, including OCTANe, Girl Scouts of Orange County, Irvine Public Schools Foundation STEAM Fest and Board of Trustee meeting, local PTA Council leaders, Discovery Cube Apollo 11 and Raspberry Pi events, Big Brothers and Big Sisters of Orange County, Riverside County Office of Education Expo 2019, STEPCon, City of Anaheim, and IEEE.

Dana has also partnered with Cheryl, Mike Fuhr from Discovery Cube, and Goran Matijasevic from UCI to build corporate support...
VIII  Broadcom Foundation Signature Programs (Continued)

for ISEF through the newly created Corp/Comm LAC committee. This committee supports the judging committee and is tasked with recruiting the top ten Orange County influencers to engage the CSR teams of 40 OC STEM corporations, with the goal of securing 500 judges from 20 corporate partners.

Inspiring Middle Schoolers to Pursue STEM

In addition to creating a public platform for excellence in STEM, Broadcom Foundation’s signature programs provide equitable access to STEM learning for underrepresented middle schoolers by encouraging women and first-generation students to find their passion in STEM. The Broadcom MASTERS®, Broadcom MASTERS® International, Broadcom Presents: Design_CODE_Build and Raspberry Pi “Coolest Projects” create opportunities for young people to learn and excel in STEM and provide a vehicle for teachers, parents and volunteers to become mentors, science fair judges and STEM contributors in classrooms, afterschool programs.

2019 Broadcom MASTERS® in Washington DC

Broadcom MASTERS® (Math, Applied Science, Technology and Engineering as Rising Stars), a program of Society for Science & the Public, is the premier middle school science and engineering fair competition. Broadcom MASTERS® participants reap the
benefits of project-based learning, collaboration with teachers, mentors, scientists and engineers.

Out of over 2,500 national competitors nominated at Society-affiliated state or regional science fairs, 30 finalists were then selected to compete at the 2019 Broadcom MASTERS® in Washington, DC. Finalists in teams programmed Raspberry Pis under the guidance of Foundation partners from the Computer History Museum, gathered live samples of estuary marine life from the Chesapeake Bay, and learned how to build submersibles under the guidance of scientists at the Smithsonian Environmental Research Institute.

Broadcom MASTERS® awards cash prizes and gifts to all MASTERS nominees and their teachers at every level of competition. This year the $25,000 Samueli Foundation Prize went to Alaina Gassler, 14, of West Grove, Pennsylvania, for her project reducing blind spots in cars and for her exemplary performance in the Broadcom MASTERS’s hands-on challenges. (Volvo flew Alaina to Sweden to explore manufacturing her innovation!)

Other awards included the $10,000 Marconi/Samueli Award for Innovation, the $10,000 Robert Wood Johnson Foundation Award for Health Advancement, the $10,000 STEM Talent Award sponsored by DoD STEM, and the $7,500 Lemelson Award for...
Invention, STEM and team awards. Top awards in math were sponsored by Robert John Floe, President, Floe Financial Partners.

Broadcom MASTERS® Alumni at 2019 Regeneron Science Talent Search

The Regeneron Science Talent Search (STS), a program of Society for Science & the Public since 1942, is the nation’s oldest and most prestigious science and math competition for high school seniors. Each year more than 1,800 student entrants submit original research in their fields. In March 2019, Broadcom MASTERS® alums stood out as 10 Finalists and 47 STS Scholars at the STS Finals. The Alums gathered for a great reunion, mingling with the Class of 2019 and enjoying the opportunity to share memories. Paula had dinner with four India alums while in Bangalore, all of whom said the Broadcom MASTERS set them on their path to college and career. Alums from all over the world are off to college now, showing advancing STEM education does indeed grow next generation of scientists.

2019 Broadcom MASTERS® International Delegates Convene in Phoenix

The 7th Annual Broadcom MASTERS® International brought 26 young scientists and engineers from around the world to Phoenix,
Arizona, where they transcended cultural and language barriers to share their passion for science and engineering and forge friendships that will last a lifetime. More importantly, they have been forever transformed into global thinkers who envision their future collaborations together as tomorrow’s scientists, engineers and innovators.

Traveling from as far away as Australia, Egypt, Israel, Brazil, Malaysia, Singapore and South Africa, Broadcom MASTERS® International delegates quickly bonded around shared interests expressed in their national science fair projects. Two Native American middle schoolers were selected by the Phoenix Fair as host delegates. Throughout the intense, action-packed week, the delegates found STEM principles in art and music at the Heard and Musical Instrument Museums, studied space travel and human bio-electrical engineering at ASU, and participated as official observers to the 2019 ISEF.

Middle Schoolers Pursue STEM Passions at Regional Science Fairs

Developing a science or engineering project worthy of competition is no small feat for any middle schooler, and preparing underserved kids to be “science fair ready” takes a meaningful effort by many. Broadcom Foundation supports regional fairs, many of which are in proximity to Broadcom Inc.’s offices like those in Silicon Valley,
Orange County, Alameda, Fort Collins, San Diego, Austin and Phoenix, enabling Broadcom engineers and non-STEM employees to volunteer their time to judge competitions, mentor young people and participate in STEM education programs. Kudos go out to our Broadcom friends and colleagues throughout the United States!

Orange County Science & Engineering Fair

Spearheaded by Prasanthi Sathyaprakash, President of the Orange Country Science & Engineering Fair (OCSEF), one of the great success stories in regional science fairs has been the Mentor Match Program in partnership with the UC Irvine Cal Teach Program, which pairs science education student teachers with middle school and high school science teachers to mentor students in development of their science fair projects. Four schools participated in the initial program with a total of 39 students. The program continues in 2019-2020 with six schools and as many as 170 students.

This year 452 projects were submitted to the OCSEF from 89 schools. 50 students were selected to enter the Broadcom MASTERS® competition, with 9 projects selected among the “Top 300 MASTERS.” 80 projects were submitted to the California Science and Engineering Fair and 4 students competed at the 2019 ISEF in Phoenix.

OCSEF inaugurated the STEAM Showcase this year to recognize 4th through 12th grade students for projects focusing on engineering and software design. Scientists and engineers met with students to provide encouragement, feedback and suggestions for continued work on projects. OCSEF also partnered with the Girl Scouts of Orange County for a GSOC Ask a Scientist Night and two other Science Night programs at local schools.

San Mateo County Office of Education STEAM Fair and Arts Expo

Support of the San Mateo STEAM fair permits the county to take a deeper dive into both student and teacher development in STEAM in order to bring in students and teachers who are not in competition but are engaged in STEAM-related projects to share with the community. The Foundation’s funding supports a plethora of activities, including a teacher leader cohort and facilitator stipends, network convenings, guided implementation for teacher leaders, The STEAM Fair Tabling Event, and STEAM Fair School Awards.

San Mateo requested that the Foundation’s support assist the county in reaching beyond just those teachers and students who compete with science projects. Their fair drew in many more parents and students to view the projects and learn about STEM than only those committed to the competition.
Irvine Unified School District Science Fair

As the very first grantee of our nascent foundation, Irvine Public Schools Foundation has partnered with Broadcom Foundation for 10 years in support of STEM Education, including sponsorship of the Irvine Unified School District Science Fair and IPSF STEAM Fest. These events showcase STEM learning at all levels of K-12 education, and we are very proud of our collaborative support for the next generation of scientists, engineers and inventors. In 2019, 473 students in grades 6-12 participated in the fair at their local school sites. 278 school site winners went on to the Irvine Unified School District Science Fair that was held in February 2019. Special thanks to Nick Alexopoulos and his wife Sue for representing the Foundation!

Austin Energy Regional Science Fair

575 students in grades 6 to 8 presented 450 to 500 projects at the Austin Energy Regional Science Festival. As a major outreach initiative in STEM, fair volunteers mentor students at several schools with predominantly low-income and diverse populations. Although some of the projects are relatively simple, the students’ self-confidence rises precipitously when they have the opportunity to showcase their project at the fair. They demonstrate genuine excitement and inspiration as they discuss new ideas that they
receive from speaking with judges and looking at the projects of their peers. This initiative has become a showcase to other fairs, and the Foundation wants to give Austin a special shout-out for this!

For the more advanced science fair projects, Broadcom MASTERS® offers one of the few opportunities for middle school students in the region to further present their research work; while the fair has yet to have a finalist in the Broadcom MASTERS®, the Austin team continues to encourage their students to participate.

Arizona Science and Engineering Fair

The Arizona Science & Engineering Fair (AzSEF) is hosted at the Arizona Science Center, bringing together winners from school, homeschool, district, county and regional science fairs across Arizona to compete for prizes and scholarships. Every year more than 2,000 participants including students, teachers, parents, volunteers, and STEM-industry professionals take part in this statewide event. AzSEF provides valuable opportunities for students to pursue their interests in STEM, showcase their work, engage with mentors, and tap into their fullest potential. AzSEF had 1,015 registered participants with 726 projects – a 10 percent increase over last year. This year AzSEF did double duty as hosts for 2019 ISEF. Bravo!
Salute to CHM Leadership of Broadcom Presents: Design_CODE_Build

Since its inception in 2014, Broadcom Presents: Design_CODE_Build at the Computer History Museum (CHM) has thrived under the visionary leadership of Lauren Silver and Kate McGregor. Their departure from CHM this year is a great loss to the Foundation and the broad community of STEM stakeholders in Silicon Valley. We will miss you.

Since its creation in 2014, Broadcom Presents: Design_CODE_Build has engaged more than 8,750 youth to experience principles of computer science through hands-on programming, to discover career trends that require coding skills and to inspire them to continue their studies in STEM disciplines. Low-income/underserved students have benefited from the program with 70 percent from community-based organizations and/or schools of which 67 percent are low-income. In post-program surveys, over 80 percent of students agreed with the statements: I am interested in learning about computing and technology. Computer programming lets me think about ideas in new and innovative ways. “I want to be part of computing and technology activities out of school.”
The DCB participants this year included: 4-H San Mateo/San Francisco County, 4-H Santa Cruz/San Benito, 49ers SLI, ACE Inspire, Big Brothers Big Sisters of the Bay Area, Big Brothers Big Sisters Santa Cruz, Black Girls CODE, Boys & Girls Club - Silicon Valley, Boys & Girls Clubs of Fresno County, Breakthrough, SF, CIMI, Coder Dojo, Coder Dojo, Hartnell College, Foundation for a College Education, Graham Middle School, LISTAS, Luther Burbank School District, Stem Scouts, Troop 92, UCSC MESA Program, YMCA-SV Reach & Rise.

More than 3,000 Broadcom employees and their guests have participated in the annual Broadcom Weekends at CHM over the past four years.
IX Community Partnerships and Global Citizenship

Orange County STEM Partners with Raspberry Pi Foundation

Since 2009 Broadcom Foundation has funded coding collaborations with UCI and the Raspberry Pi Foundation. Broadcom Foundation has partnered with Discovery Cube of Orange County to put the “T” and “M” in the museum’s robust afterschool STEM partnerships throughout Orange County. The ongoing collaborations between our partners amplifies the importance of coding as a critical 21st Century language skill and creates a model for community engagement in coding that can be leveraged throughout other STEM ecosystems over time.

Coolest Projects North America Returns to OC

Broadcom Foundation sponsored Raspberry Pi Foundation’s inaugural Coolest Projects North America in partnership with the Discovery Cube of Orange County on March 23, 2019. Coolest Projects is a world-leading public showcase that inspires young digital creators and innovators who present the projects that they created at their local CoderDojo, Code Club and Raspberry Jam.

Coolest Projects USA is open to all young people 18 and under who display their work as an individual or as part of a team of up to five. Coolest Projects events are open to all levels of ability; the focus is on creativity, participation and, most of all, fun! Raspberry Pi
Foundation US offered travel to help offset the costs associated with travel to the event. The Foundation hosted an informational booth on the Broadcom MASTERS® and ISEF as well as free coding lessons on Raspberry Pi open to the public. With several UCI volunteers, hundreds of young people were taught basic programming together with a hardware lesson on the Raspberry Pi. Coolest Projects also takes place in the United Kingdom and Ireland, with plans to expand to Malaysia and SE Asia.

Discovering Engineering with the Bay Area Discovery Museum Try It Truck!

Broadcom Foundation partnered with the Bay Area Discovery Museum to launch the ‘Try It Truck’, an engineering lab-on-wheels that travels directly to schools, libraries and community organizations throughout the Bay Area to provide hands-on early engineering experiences to young learners. For many schools, especially Title I schools and those in rural areas, the ‘Try It Truck’ represents the bulk of – or only – science instruction that students receive, making it a critical resource for those without access to STEM resources or materials. 97 percent of children surveyed at eight schools and two libraries agreed that “Try It Truck activities are a good way to learn about engineering,” and 92 percent agreed that “Visiting the Try It Truck made me want to learn more about engineering.” Students said they learned 1) the challenge and
difficulties of engineering, 2) the value of persistence and trying hard, 3) the value of teamwork, and 4) using tools to create and build. Students were also asked to list three words that described their favorite activity; the word “fun” was mentioned the most, followed by the words “hard”, “cool”, and “interesting.”

Girl Scouts of Orange County Lead the Way in STEM

As the founding member of Girl Scouts of Orange County’s STEM Consortium, Broadcom Foundation’s support over the past five years has helped create thousands of opportunities for girls throughout Orange County to experience STEM firsthand and learn the important role it plays in their everyday lives. In 2019, 7,945 Orange County K-12 girls earned badges in STEM, and 1,085 participated in council-run STEM events, such as the STEM Expo, a beach cleanup, robotics events, and more. Additionally, more than 4,000 girls participated in INSPIRE to explore 21st century STEM careers and learned how to act on issues they care about.

Highlights from the past year include Titan Lab Adventures, an event designed in partnership with GSOC’s volunteer STEM Patrol and California State University, Fullerton’s ACM-W Club and led by Cal State students and faculty to give Girl Scouts in grades 8-12 a sneak peek at college life and what a major in a STEM field such as computer science, biochemistry or nursing would be like.
Broadcom Foundation’s support also greatly contributes to the success of the growing FIRST LEGO League Robotics program. This past fall, three out of four Girl Scout teams placed in their qualifying tournaments and advanced to the regional competition at LEGOLAND in Carlsbad, CA.

**Girls Inc.**

Girls Inc.’s hands-on, after school and summer STEM programs inspire girls while teaching them valuable skills. Their STEM activities create an environment in which girls are encouraged to explore their STEM interests through fun, accessible and interactive activities. Over the course of 2019, 398 girls were served by Girls Inc., of which 68 percent are Latina.

The four-week, daily summer program provided girls with 50 percent STEM hours and 50 percent other-life-skills education. Girls were able to put their STEM knowledge into practice during field trips to Knott’s Berry Farm and Disney’s California Adventure, utilizing what they learned about the physics of roller coaster design and operation. One of Girls Inc. of Orange County’s most unique partnerships is with the Orange County Juvenile Hall (OCJH), because Girls Inc. have the opportunity to serve girls who are incarcerated or pending Juvenile Court hearings utilizing the Girls Inc. STEM curriculum by combining art and coding.
IX Community Partnerships and Global Citizenship (Continued)

Elevate [Math]

Elevate [Math] is a summer intervention program in the Silicon Valley Region for 3rd-10th graders, designed to increase the number of students meeting Common Core math standards. Elevate [Math]'s 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. By providing programs focused on building math skills and student confidence, SVEF helps prepare more students for success in college and careers.

In the summer of 2019, Elevate [Math] partnered with 33 school districts to host 186 Elevate [Math] classes. The program was able to provide critical intervention for over 4,000 students and professional development for over 200 teachers throughout the Bay Area. 250 corporate volunteers provided workshops for our students to help give insight into STEM careers. 60 college-level students assisted teachers and acted as mentors for aspiring youth.

Broadcom In-Kind Gifts Support Computer Literacy

As an important CSR initiative, engineers at Broadcom Inc. are working closely with the Foundation to place decommissioned laptop computers with NGOs that provide STEM education to underserved students.
Orange County, THINK Together Benefits from Gifts of Decommissioned Computers

In Orange County, Broadcom Inc. dispersed 345 Dell laptops and miscellaneous computer equipment to THINK Together After Schools servicing Los Angeles, Orange and Riverside Counties and to OC Discovery Cube Computer Lab. The Foundation is working with the company to facilitate in-kind gifts of equipment rather than e-waste, and to place Raspberry Pis in schools and after-school programs.

Students in the Bronx Receive Refreshed Laptops and Pis

Code the Bronx at Renaissance EMS is taking full advantage of hundreds of laptops donated by Broadcom, Inc and Raspberry Pis from the Broadcom Foundation, making great progress in the area of STEM learning and coding for hundreds of K-12 students. The Robotics/Circuitry program at Renaissance is doing “really cool stuff” with vex robots and copper circuitry, laptops and a 3D printer.

The Code the Bronx program had 18 participants complete a 7-week cycle that was 4.5 hours each Saturday, an intense timeline for 8th-11th grade inner-city students. In the coming cycle, Renaissance hopes to recruit enough participants to run both a beginner and an intermediate class on Saturdays. The coding class was taught
on Broadcom, Inc’s donated laptops, and each participant received a FREE laptop for completing the course. Additional donated laptops were also delivered to all after-school program sites and given away to teens during its Youth Connect borough tour.

Broadcom CSR Programs Reach Children at Home & Abroad

Colorado Hands-On Program Inspires Girls to Pursue STEM

Engineers at Broadcom, Inc in Fort Collins, Colorado, hosted 70 sixth-grade girls from Northern Colorado and 60 volunteers, including local companies HP, HPe, AMD, Intel and MicroFocus, to inspire STEM learning and career awareness.

The girls spent the day on the HP campus in hands-on sessions, tours, and interacting with inspiring women in tech. In the chemistry session, they made ice cream with liquid nitrogen and used the pH-sensitive properties of goldenrod paper to write messages with electricity. They learned about some simple programming in the embedded systems session, programming mBot robots to move on command. The girls got to be a little de-constructive in the Electronic Guts session, where they tore apart desktop computers to see what was inside. Most sixth graders have never soldered, and they learned how, building an LED lightbox that they took home.
IX Community Partnerships and Global Citizenship (Continued)

For the Women in STEM panel, Broadcom, Inc and its volunteer partners gathered four women from different industries and career paths to inspire the girls by telling them about their experiences in their field. For further inspiration, each participating student received a copy of Girls in STEM donated by Broadcom Foundation.

Strategic STEM Collaborations in India are the New Goal for CSR

Broadcom Foundation advises Broadcom India as to how best to fulfill the corporation’s required CSR contributions in India, consulting on viable philanthropic gifts that meet the guidelines of the India Trust. Here are some highlights:

- **IRIS National Fair** - In partnership with the government of India, Broadcom India became the national sponsor of the most prestigious national science and engineering fair in the nation. The IRIS National Fair promotes and nurtures science and scientific research among young Indian innovators. It recognizes and rewards outstanding projects. It provides a platform for winning students to represent India at the Regeneron International Science and Engineering Fair (ISEF), the world’s largest international pre-college science competition, which will be held in Orange County in May of 2020.
IX Community Partnerships and Global Citizenship (Continued)

- **Agastya International Foundation** - Paula met with the founder and staff of Agastya in San Francisco and Bangalore this year in order to strengthen its ties with Broadcom India. Agastya’s mission is to spark curiosity (Aah!), nurture creativity (Aha!) and build confidence (Ha-Ha!) among economically disadvantaged children and teachers in India. It runs hands-on science and art education programs in rural, semi-urban and urban regions across 19 Indian states. This year Paula visited the “Campus Creativity Lab” located on a 172-acre campus in Kuppam, Andhra Pradesh, which houses science and art centers including an astronomy center and planetarium, center for creative teaching, an innovation hub and a science model-making center. Broadcom and the Broadcom Foundation support Agastya’s mobile labs, its new partnership with the IRIS National Fair and development of a Raspberry Pi Lab on the campus.

- **Foundation for Excellence Kuppam** marked its 25-year anniversary with events in Silicon Valley and at The Leela Palace, Bangalore. The events brought together FFE’s corporate and individual donors, its facilitators, alumni, board members and FFE’s team to celebrate 25 years of the organization’s accomplishments while reaffirming its commitment to its mission to Transform. FFE Alumnus Raghu M J is a R&D Software Engineer at Broadcom Communication Technologies.
IX Community Partnerships and Global Citizenship (Continued)

Private Limited, Bengaluru. He writes, “Having secured a good score in entrance exams, my wish to earn a bachelor’s degree in Engineering was facilitated ... through FFE scholarships from 2004 to 2008, ... achieving my goals including graduating with a bachelor’s degree, a master’s degree in 2014 from Manipal University later and a satisfying profession.” Foundation for Excellence India Trust transforms the lives of academically brilliant but financially needy students in India by awarding merit cum means scholarship.

- **Numi Foundation** – Broadcom India/Broadcom Foundation were honored this year for their partnership with Numi Foundation through Purva Bharati Educational Trust (PBET) that works to ensure clean, safe drinking water in Northern Assam, India, through implementation and design of water, sanitation and hygiene community organizing and behavior change.

- **Vidya Integrated Development for Youth & Adults (VIDYA)** – VIDYA works for the education and empowerment of underprivileged children, youth, and women in Spoken English, Computers and Life Skills.
IX Community Partnerships and Global Citizenship (Continued)

• **Rise Against Hunger** - During her visit to Bangalore, Paula visited with the director of Rise Against Hunger, which provides continued support for the development of relief programs in Bangalore and other major cities and creates opportunities for Broadcom employees to participate as in the past. The program has grown exponentially.

• **India Institute of Science, Bangalore (IISc)** - Broadcom India provided a grant to the India Institute of Science, Bangalore in order to host 27 graduate students from IISc and its partner universities in the UK, Ireland and Israel at the 2019 EMEA University Student Research Workshop in Delhi (see University Workshops for future details).

**Connecting with the Community, Partners & Kids**

Branding our philanthropic initiatives and informing the public, especially students, educators, and parents, is essential to the Foundation mission and goals. This year the Foundation launched a new website design with more videos, cleaner content and simpler navigation. To increase touch points within the STEM community, Broadcom Foundation’s social media program added Facebook and LinkedIn, which furthered its recognition as a STEM thought leader. Science fair communications was a pointed focus this year.
IX Community Partnerships and Global Citizenship (Continued)

as the Foundation helped major local and regional science fairs to better promote the Broadcom MASTERS® competition and the entrants that are awarded with a new, highly visible packet to be used in photos and videos. A short presentation was developed for fairs to use during awards ceremonies to highlight the Broadcom MASTERS®.

The Broadcom Foundation team went “on tour” to local events to promote Broadcom MASTERS® and upcoming ISEF in 2020. Booths were manned at OCSEF, CSEF, Inland Empire STEM Events, and IPSF STEAM Fest, reaching thousands of STEM novices and enthusiasts to educate on the Broadcom MASTERS® program and encourage volunteerism at ISEF in Orange County. Presentations were given to local Orange County leaders, OCTANe members and OCDE PTO leadership to unite the community around ISEF 2020 and promote Orange County as an innovation hub.

Finally, the 2019 Broadcom MASTERS® top 5 winners were a historic, all-female class that proved young women can do anything! The news media and blogger community jumped on this “win for women” and the news coverage proves it with features from Mashable, Popular Mechanics, Forbes, CNN, NY Times, ABC News and Inside Edition. In total, 800 media hits were secured on the Broadcom MASTERS® including 45 national, 280 local, 85 broadcast
and 375 international stories. “Social echo” — or how many times a story was shared on social media — was 11,415 on US Twitter and 340,149 on US Facebook. Advertising Value Equivalent was $5,060,418 in the US.

Awards and Accolades

University of Michigan Honors Nicolaos G. (Nick) Alexopoulos

For five decades, Nick Alexopoulos has been a leader in engineering administration and electrical engineering research. For his work championing engineering disciplines from the classroom to the boardroom, Nick received Michigan Engineering’s 2019 Alumni Award, its highest honor.

A proud Greek American who tells riveting stories of coming to the United States by steamer with nothing but his dreams and a small suitcase, Nick rose to be elected to the National Academy of Engineering in 2007 “for contributions to microwave circuits, antennas, and structures for low observable technologies, and for contributions in engineering education.”

Since 2008 Alexopoulos has served as a vice president at Broadcom Corporation, and more recently, Vice President of the Broadcom Foundation. Under his 11 years of leadership as Dean of Engineering at the University of California, Irvine, the school more than doubled
enrollment and faculty, and nearly tripled research expenditures. He helped establish the National Fuel Cell Research Center, Integrated Nanosystems Research Facility, Center for Engineering Science in Design, and Biomedical Engineering department. Recently, the school and donors created the Nicolaos G. and Sue Curtis Alexopoulos Presidential Endowed Chair.

Special Acknowledgments

Space IL

In 2011 Broadcom Foundation made one of its first gifts to SpaceIL, an Israeli organization competing in the Google Lunar X Prize (GLXP) to land a spacecraft on the Moon, a prize it planned to use in support of middle school STEM education. On April 11, 2019, during the landing procedure at the northern region of Mare Serenitatis, mission control received a “selfie” photograph from the probe with the lunar surface visible in the background, but on approach to the landing site, the craft’s main engine stopped operating and the lander crashed on the Moon’s surface. As a reminder that failure is a necessary step in the advancement of science and engineering, SpaceIL will make another attempt to conquer space, with an as yet unannounced plan. Broadcom Foundation salutes the team at SpaceIL and wishes them good luck in their next project.
IX Community Partnerships and Global Citizenship (Continued)

Picademy

Broadcom Foundation President and a non-engineer, Paula decided that she was ready to “walk the walk” instead of “talk the talk.” Emboldened by Dean Gregory Washington who led the way as an alumnus, she signed up for Picademy at UCI. Picademy is a two-day training session organized by the Raspberry Pi Foundation that rotates to different venues each summer and trains educators on how to use the Raspberry Pi microcomputer. During July 29 - Aug 2, 80 educators learned digital making and physical computing using Scratch and Python. OC STEM will be an official Raspberry Pi Regional Training Partner in 2020 and continue to provide innovative professional development to educators in formal and informal learning environments.

Was it scary for this nonlinear thinker? Yes! Was it a fabulous, fear-free, user-friendly way to get to know the amazing Raspberry Pi? Yes! Along with 40 teachers from all over the country, Paula learned to code. Special thanks to the Raspberry Pi team, Leyla Riley and Marvin Maldonado, and to Greg and Nicole’s son Kaleb Washington who was Paula’s guide and mentor throughout. It was an eye-opener!
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 in excess of $4.1 million in 2019. Going forward, the Foundation anticipates continuing to make annual gifts in support of initiatives that help fulfill its mission.

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, 2019 and December 31, 2018; and

- A Statement of Broadcom Foundation’s Support, Revenues and Expenses – Modified Cash Basis, for the years ended December 31, 2019 and December 31, 2018.

Additional information can be found in the IRS Form 990, which upon filing, will be made available on Broadcom Foundation’s website at 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
FINANCIAL STATEMENTS

For the Year Ended December 31, 2019
(With Independent Auditors' Report Thereon)
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For the Year Ended December 31, 2019

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To the Board of Directors
Broadcom Foundation

INDEPENDENT AUDITOR’S REPORT

Report on the Financial Statements

We have audited the accompanying financial statements of Broadcom Foundation (a nonprofit Organization), which comprise the statement of financial position – modified cash basis as of December 31, 2019, the related statement of support, revenues and expenses – modified cash basis for the year then ended, and the related notes to the financial statements.

Management’s Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the modified cash basis of accounting described in Note 2; this includes determining that the modified 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.

Auditor’s Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor’s judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the organization’s preparation and fair presentation of the financial statements 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 the organization’s internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the assets and net assets of Broadcom Foundation as of December 31, 2019 and the changes in its net assets for the year then ended in accordance with the modified cash basis of accounting described in Note 2.

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.

Report on Summarized Comparative Information

We have previously audited Broadcom Foundation’s 2018 financial statements, and we expressed an unmodified opinion on those financial statements in our report dated April 10, 2019. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2018 is consistent, in all material respects, with the audited financial statements from which it has been derived.

Irvine, California
March 31, 2020
### Statement of Financial Position - Modified Cash Basis

**December 31, 2019**

(With comparative information for the prior year)

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents (note 3)</td>
<td>$ 6,116,955</td>
<td>$ 4,100,121</td>
</tr>
<tr>
<td>Investments (note 3)</td>
<td>108,828,037</td>
<td>96,451,414</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td><strong>$ 114,944,992</strong></td>
<td><strong>$ 100,551,535</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NET ASSETS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Without donor restrictions</td>
<td>$ 114,944,992</td>
<td>$ 100,551,535</td>
</tr>
<tr>
<td>With donor restrictions</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Net Assets</strong></td>
<td><strong>$ 114,944,992</strong></td>
<td><strong>$ 100,551,535</strong></td>
</tr>
</tbody>
</table>

See accompanying notes to financial statements - modified cash basis
Statement of Support, Revenues and Expenses - Modified Cash Basis
For the Year Ended December 31, 2019
(With comparative information for the prior year)

<table>
<thead>
<tr>
<th>Support and revenues:</th>
<th>2019</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment income (loss), net (note 4)</td>
<td>$19,781,996</td>
<td>$(3,732,823)</td>
</tr>
<tr>
<td>Total support and revenues</td>
<td>19,781,996</td>
<td>(3,732,823)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program services:</td>
</tr>
<tr>
<td>STEM</td>
</tr>
<tr>
<td>Supporting services:</td>
</tr>
<tr>
<td>Management and general</td>
</tr>
<tr>
<td>Total expenses</td>
</tr>
</tbody>
</table>

Increase (decrease) in net assets without donor restriction | 14,395,823 | (8,996,605) |

| Net assets at beginning of year | 100,549,169 | 109,548,140 |
| Net assets at end of year | $114,944,992 | $100,551,535 |

See accompanying notes to financial statements - modified cash basis
Statement of Functional Expenses - Modified Cash Basis
For the Year Ended December 31, 2019
(With comparative information for the prior year)

<table>
<thead>
<tr>
<th>Program Services</th>
<th>Supporting Services</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STEM</td>
<td>Management and General</td>
</tr>
<tr>
<td>Grants</td>
<td>$4,194,959</td>
<td>-</td>
</tr>
<tr>
<td>Salaries and benefits</td>
<td>423,214</td>
<td>360,471</td>
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<tr>
<td>Professional services</td>
<td>13,140</td>
<td>16,330</td>
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<tr>
<td>Administrative services</td>
<td>16,150</td>
<td>78,889</td>
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<tr>
<td>Office, equipment, and supplies</td>
<td>8,800</td>
<td>61,181</td>
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<tr>
<td>Communications</td>
<td>67,121</td>
<td>-</td>
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<tr>
<td>Miscellaneous</td>
<td>77,017</td>
<td>4,775</td>
</tr>
<tr>
<td>Excise tax</td>
<td>-</td>
<td>64,126</td>
</tr>
<tr>
<td>Total expenses</td>
<td>4,800,401</td>
<td>585,772</td>
</tr>
</tbody>
</table>

See accompanying notes to financial statements - modified cash basis
Notes to Financial Statements – Modified Cash Basis
Year ended December 31, 2019

(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 occasionally exceed those limits.

(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.

(f) Investment Policy
On April 13, 2016, 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, and Commercial Paper.

(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:

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:
Notes to Financial Statements – Modified Cash Basis *(Continued)*

Year ended December 31, 2019

**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.

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, 2019.

**(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 programs and supporting activities occupying the space.

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.
(3) Cash, Cash Equivalents and Investments

Cash and investments held by the Foundation are reported in the accompanying financial statements as follows at December 31, 2019:

<table>
<thead>
<tr>
<th>Description</th>
<th>Fair Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents</td>
<td>$6,116,955</td>
</tr>
<tr>
<td>Investments</td>
<td>108,828,037</td>
</tr>
<tr>
<td>Total cash and investments</td>
<td>$114,944,992</td>
</tr>
</tbody>
</table>

At December 31, 2019, Broadcom Foundation had funds in excess of federally-insured limits in the amount of $5,467,673.

Fair values of investments at December 31, 2019 are categorized as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Markets for Identical Assets (Level 1)</th>
<th>Observable Inputs (Level 2)</th>
<th>Unobservable Inputs (Level 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity Securities</td>
<td>55,537,868</td>
<td>2,351,465</td>
<td>-</td>
</tr>
<tr>
<td>Preferred Securities</td>
<td>2,351,465</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mutual Funds</td>
<td>25,907,643</td>
<td>4,513,800</td>
<td>-</td>
</tr>
<tr>
<td>Short-Term Corporate Bonds</td>
<td>2,669,403</td>
<td>2,669,403</td>
<td>-</td>
</tr>
<tr>
<td>U.S. Treasury Securities</td>
<td>8,811,444</td>
<td>1,037,360</td>
<td>-</td>
</tr>
<tr>
<td>Corporate Bonds - Consumer Discount</td>
<td>1,587,450</td>
<td>1,587,450</td>
<td>-</td>
</tr>
<tr>
<td>Corporate Bonds - Energy</td>
<td>1,037,360</td>
<td>1,037,360</td>
<td>-</td>
</tr>
<tr>
<td>Corporate Bonds - Financial</td>
<td>7,784,041</td>
<td>7,784,041</td>
<td>-</td>
</tr>
<tr>
<td>Corporate Bonds - Healthcare</td>
<td>1,022,970</td>
<td>1,022,970</td>
<td>-</td>
</tr>
<tr>
<td>Corporate Bonds - Media</td>
<td>2,118,393</td>
<td>2,118,393</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$108,828,037</strong></td>
<td><strong>23,084,882</strong></td>
<td><strong>-</strong></td>
</tr>
</tbody>
</table>

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.
Investment Income (Loss)

Investment income (loss) for the year ended December 31, 2019 consisted of the following:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest</td>
<td>$793,428</td>
</tr>
<tr>
<td>Dividends</td>
<td>1,844,197</td>
</tr>
<tr>
<td>Realized gain (loss)</td>
<td>2,181,684</td>
</tr>
<tr>
<td>Unrealized gain (loss)</td>
<td>15,390,603</td>
</tr>
<tr>
<td>Less: investment fees</td>
<td>(427,916)</td>
</tr>
<tr>
<td><strong>Total Investment income (loss), net</strong></td>
<td><strong>$19,781,996</strong></td>
</tr>
</tbody>
</table>

Retirement Plan

Broadcom Foundation offers a 401(k)-retirement plan for all eligible employees. Employee 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, 2019, the Foundation’s deferred compensation expense was $33,601.

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, 2019 are as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and cash equivalents</td>
<td>$6,116,955</td>
</tr>
<tr>
<td>Investments</td>
<td>108,828,037</td>
</tr>
<tr>
<td><strong>Total financial assets</strong></td>
<td><strong>114,944,992</strong></td>
</tr>
<tr>
<td>Less financial assets not available within one year:</td>
<td></td>
</tr>
<tr>
<td>Long-term investments not intended to be spent</td>
<td>(27,081,886)</td>
</tr>
<tr>
<td>Amount available for general expenditures within one year</td>
<td><strong>$87,863,106</strong></td>
</tr>
</tbody>
</table>

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.
(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

Broadcom Foundation evaluated its December 31, 2019 financial statements for subsequent events through March 31, 2020, the date the financial statements were issued. As a result of the spread of the COVID-19 coronavirus, economic uncertainties have arisen which negatively impacted the value of the Foundation’s investment portfolio. Other financial impact could occur, though such potential impact is unknown at this time. Broadcom Foundation’s liquidity includes 18 months of cash on hand and an additional large position in US Treasury Securities.