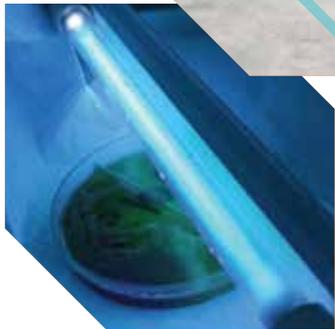




Humanitarian Activities  
Committee

# 2021 IEEE HAC Annual Report





# IEEE HAC - Increasing Grassroots Humanitarian Technology Impact Globally

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## SUSTAINABLY SPEAKING:

# A Letter from the IEEE HAC Chair

Dear Friends,

We are delighted to share the first IEEE Humanitarian Activities Committee (HAC) Annual Report to showcase the breadth and width of programs that we have delivered to our members this year. This has been a record-breaking year and a terrific journey for IEEE HAC, especially considering the ever-evolving challenges of the ongoing COVID-19 pandemic. Despite the challenging circumstances, HAC delivered impactful humanitarian technology and sustainable development programs and a portfolio of global opportunities that truly empowered and inspired our members at the grassroots level.

The primary mission of HAC in 2021 was to deliver value-driven programs that would enrich the IEEE membership experience. To achieve this and contribute to the HAC strategic areas of focus, the committee set key goals that included increasing engagement with IEEE entities, hosting two calls for proposals to select humanitarian technology and sustainable development projects to fund, growing recognition of a coordinated IEEE HAC/SIGHT brand, leading collaboration efforts with international agencies, and delivering strategic global programs.

I'm extremely proud to share that HAC met and surpassed its goals this year. Details on how this was accomplished are in the report, but one prime example is how HAC engaged with over thirty IEEE organizational units and programs. HAC rolled out a joint partnership program that led to three shared calls for project proposals with IEEE Region 10 and two IEEE Societies, the IEEE Electron Devices Society (EDS) and the IEEE Antennas and Propagation Society (AP-S). As an added

layer of collaboration, the IEEE Society and HAC joint calls for proposals were funded in part by contributions to the SIGHT Fund of the IEEE Foundation. These calls provided more opportunities for IEEE Members to get involved in humanitarian technology and sustainable development activities. They also led to HAC receiving the largest number of project proposals in its history: 385 project proposals from 45 countries and seven of ten IEEE Regions. This year, HAC also scaled external collaborations to newer heights through participation in important events on a global stage.

For IEEE to become a leader in the global sustainable development space, collaboration is necessary, but building a community of individuals passionate about the application of humanitarian technology is also vital. This year, HAC achieved membership of over 22,000 through the IEEE SIGHT (Special Interest Group on Humanitarian Technology) program. HAC also launched the inaugural HAC Global Summit that brought together world leaders and project implementers to discuss how technology can be advanced to address the greatest challenges. This perfectly matches with the larger mission of IEEE.

What a journey this has been! As the HAC Chair, it was exciting to set bold strategic goals, transform them into actionable programs, and deliver record-breaking growth in 2021. I am humbled and honored to be re-appointed as the 2022 HAC Chair to continue building a better future for our Members and their communities through even more collaborations and opportunities next year. You are also a part of HAC's future! Please be sure to write to us at [hac-office@ieee.org](mailto:hac-office@ieee.org) with your questions, interest, and ideas.

I would like to conclude this letter with a heartfelt note of thanks to the IEEE Board of Directors and all our partners for the support and encouragement that allowed HAC to have such an impactful year. I also thank all of the HAC/SIGHT Volunteers and SIGHT Members who are the heart of our programs. The success of 2021 was only possible because of the tremendous investment of time, talent, and treasure you made. Finally, I express my gratitude to the HAC/SIGHT staff team for their tremendous dedication and efforts.

**Thank you!**

Sincerely,

*Sampathkumar Veeraraghavan*

**Sampathkumar Veeraraghavan**

2021 — 2022 IEEE Humanitarian Activities Committee Chair

# About the IEEE Humanitarian Activities Committee

## Offering a Portfolio of Programs in the Humanitarian Technology Space

**Mission:** The IEEE Humanitarian Activities Committee provides leadership as well as a suite of resources that inspire and enable IEEE volunteers around the world to carry out and support impactful humanitarian technology and sustainable development activities at the local level.

### HAC'S STRATEGIC AREAS OF FOCUS



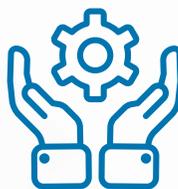
#### RAISING AWARENESS

HAC increases understanding of the role of engineering and technology in sustainable development. A major contribution to this focus area in 2021 was the **inaugural IEEE HAC Global Summit**.



#### PROVIDING TRAINING

HAC provides educational resources and opportunities so that humanitarian technology participants can have a greater positive impact. In the last two years, **more than 540 individuals** have participated in free, online HAC/SIGHT courses on the IEEE Learning Network.



#### SUPPORTING HUMANITARIAN TECHNOLOGY AND SUSTAINABLE DEVELOPMENT ACTIVITIES

HAC awards funding for grassroots IEEE member projects that utilize technology to address local challenges. In 2021, HAC received **385 project proposals** from **45 countries**, and selected **92 projects** to support.



#### BUILDING A SUSTAINABLE DEVELOPMENT COMMUNITY WITHIN AND BEYOND IEEE

HAC offers programs that engage over **22,000 members in 125 countries** and all ten IEEE Regions.

**HAC** invites you to read this report to learn more about how it has made significant advancements related to these four main areas of focus in 2021.



# IEEE HAC Collaborates Across and Beyond IEEE to Increase Humanitarian Technology and Sustainable Development Innovation

In 2021, HAC placed a major focus on collaborations across and beyond IEEE. IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. Its more than 400,000 members contribute to publications, conferences, technology standards, and professional and educational activities on a global scale. With such a diverse membership and varied activities, the breadth and reach of the Institute is significant. Collaborations within IEEE itself are important so that the world-class expertise and experiences of different member groups may be leveraged for greater impact.

## More Opportunities for IEEE Members

With regards to IEEE Member & Geographic Activities (MGA) entities, HAC reached out to all ten IEEE Regions (geographically based) and additional bodies to strategically nurture grassroots humanitarian technology and sustainable development volunteer efforts in their respective areas. This led to a pilot of the very first joint funding program between HAC and an IEEE Region: IEEE Region 10 (Asia & Pacific). The joint call for proposals "Addressing Local Needs During COVID Time" focused on supporting technology-related prototypes that addressed

“Collaboration and teamwork have great potential in maximizing resource utilization. The IEEE Region 10 and IEEE HAC Special Call for Proposals was a great, successful model.

– DEEPAK MATHUR, IEEE Region 10 Director 2021 — 2022

## Raising Collaboration Efforts to New Heights

HAC was proactive in engaging many IEEE entities this year, discussing opportunities with over 30 IEEE organizational units and programs. HAC expressed interest and willingness in partnering and offered potential ways to get started, such as raising awareness about topics of shared interest, providing volunteer training, and jointly funding humanitarian technology and sustainable development projects. This resulted in some exciting new opportunities for IEEE Members to contribute to the humanitarian technology and sustainable development space.

local community or local stakeholder organization needs related to the pandemic. This allowed volunteers to engage in sustainable development activities in a virtual manner, in order to stay safe during the COVID-19 Delta Variant surge. Six countries in the Asia & Pacific region submitted 56 complete proposals, and 27 projects were awarded funding. This trailblazing program established a customizable model for HAC collaboration with any IEEE Region.



As a Chair of the IEEE AP-S SIGHT Committee, I had the pleasure to interact with the IEEE HAC team on several occasions. Our Committee has recently forged a partnership with HAC for a joint call for project proposals. The HAC team is well informed and their efficiency is of an extraordinarily high order. Their guidance is absolutely essential in terms of project evaluation and informed decision-making.

– JAWAD Y. SIDDIQUI, IEEE AP-S SIGHT Committee Chair, 2021

HAC also focused on fostering stronger collaboration with IEEE Technical Activities through IEEE Societies, IEEE member- and volunteer-driven communities that cultivate cutting-edge research and knowledge on various technical areas of interest. Through building complementary avenues to engage with IEEE Society Members, HAC can leverage best-in-class technology to address sustainable development challenges. HAC, in turn, can help Societies to provide new tracks for member engagement, recruitment, and retention.

These efforts led to two joint funding programs for projects that used the Society's relevant technology in order to address local community challenges. The first shared call for proposals was with the IEEE Electron Devices Society (EDS) and the second was with the IEEE Antennas and Propagation Society (AP-S). Six countries from three IEEE Regions submitted 11 proposals, and seven projects were awarded funding. Even more projects will be awarded funding in 2022, as the deadline for submission for the IEEE AP-S and HAC call for proposals extends to 15 January 2022. Both of these joint funding programs were funded in part by the Societies' contributions to the IEEE SIGHT Fund of the IEEE Foundation in 2020 and 2021.

HAC considers the successful joint funding programs with IEEE entities a major success of 2021 and looks forward to continuing this model in 2022.

Collaborations were not limited to jointly funding projects. Regular conversations with many IEEE entities

produced new opportunities, meaningful connections, mentoring, and educational content. One example is how HAC engaged with IEEE Standards (SA) regarding partnering opportunities in sustainable development. Regular conversations about activities and ideas led to a collaboration with the newly formed SA Agriculture. When HAC heard that SA Agriculture had identified a potential local partnership with a grassroots sustainable farming organization in Ithaca, NY but didn't know of volunteers in the area who would like to get involved, HAC was able to close the gap. As it turned out, since the beginning of the year, HAC had been helping the Ithaca Section (USA, IEEE Region 1) explore opportunities for local humanitarian technology and sustainable development activities. HAC connected SA Agriculture with interested volunteers in the Ithaca Section, and now they are investigating possibilities for 2022.

Another example is HAC involvement in IEEE Sections Congress. IEEE Sections Congress is a triennial flagship event that brings together volunteer leaders from every member country to exchange ideas and learn about the products and programs IEEE offers. In 2021, this was held virtually. Together with the IEEE Foundation, HAC co-hosted a panel on "Ways to Engage Your Section in IEEE Humanitarian & Philanthropic Programs," attended by 298 participants.

A final example is the continuous engagement HAC has with IEEE Eta Kappa Nu (IEEE-HKN). IEEE-HKN is the honor society of IEEE, promoting excellence in the profession and in education with ideals of scholarship, character and attitude. Throughout the year, HAC

participated in an IEEE-HKN panel for the Day of Diversity in Science, Technology, Engineering, and Mathematics (STEM); an edition of The HKN Connection podcast; and the IEEE-HKN Student Leadership Conference (SLC).

### Collaborations Beyond the Institute

HAC recognizes the need and value of sharing what IEEE HAC is doing with an international audience of sustainable development changemakers to forge new connections, develop collaborations, and make IEEE a world leader at the intersection of technology and sustainable development.

In 2021, HAC hosted its first-ever side event at the annual Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals (STI Forum) organized by the United Nations. HAC also hosted a panel at The Global Sustainable Technology & Innovation Community (G-STIC) Conference. Both the workshop and the session focused on one of the unique HAC value propositions — a global, technically trained volunteer network — and demonstrated how technology plays a vital role in achieving the United Nations Sustainable Development Goals (UN SDGs). HAC contributed

content to a number of other high-level events, including the IEEE TechEthics and United Nations Department of Economic and Social Affairs (UN-DESA) Policy Debate Roundtable; the Science Summit at UNGA76, a major contribution to advancing Science for the UN SDGs; and the launch of the World Summit on the Information Society (WSIS) Stocktaking Repository of Women in Technology.

By developing relationships and exploring new ways to collaborate, HAC increased its capacity to fulfill its mandate from the IEEE Board of Directors to inspire and enable IEEE volunteers around the world to carry out and support impactful humanitarian technology and sustainable development activities at the local level.



Thanks to this partnership [with HAC], EDS was able to enhance the allocated funds and benefit from the vast expertise of HAC in managing projects and leveraging their local volunteer pool. It was a real win-win proposition that I can strongly recommend to other Societies.

– FERNANDO GUARIN, IEEE Electron Devices Society (EDS) Past President, IEEE Fellow



# IEEE HAC Fosters Opportunities for Hands-On, Career-Relevant Experience through Humanitarian Technology Projects



There are many benefits for the IEEE Members who participate in IEEE HAC/SIGHT funded projects. HAC has developed training and educational materials for project teams, and participants can enrich their knowledge in topics such as project management, sustainable community engagement, assessment, monitoring, evaluation, and more to complement their technical skills. Students and professionals alike have an opportunity to learn and develop their capabilities outside the classroom or office in a real-world setting. Joining projects provides a connection to a global network of like-minded IEEE Members, as well as people and organizations close by. Finally, participants frequently find satisfaction in working toward a greater purpose that aligns with their personal ethos and are encouraged by the chance to make a lasting, tangible difference.

**The impact we made as IEEE Volunteers will last forever.**

**- HAC/SIGHT Volunteer**

Since 2013, IEEE HAC and one of its subcommittees, the IEEE Special Interest Group on Humanitarian Technology or "SIGHT," have provided funding to IEEE Members who prepare and implement humanitarian technology and sustainable development projects in their local communities. The projects are required to address one or more of the United Nations Sustainable Development Goals. Project teams must build a relationship with the partner community to identify a specific need and develop a plan to address it through the development, customization, or deployment of technology. They take into account the relevant environmental, cultural, socio-economic, and infrastructural issues that could affect the project and its impact. Many times teams partner with local government, NGOs, schools and universities, or companies in order to effectively deploy the solution.



## IEEE HAC Empowers IEEE Volunteers in Their COVID-19 Response

In early 2020, the unprecedented effects of the COVID-19 pandemic began to be felt around the world. HAC leadership recognized both the need for technologists to apply their expertise to the quickly arising challenges and the desire of many IEEE Members to help their local communities in whatever way they could. Starting in 2020 and continuing in 2021, IEEE HAC/SIGHT held three calls for proposals for grassroots IEEE member projects that utilized technology to primarily address local challenges of the COVID-19 situation. A second call was held in 2021 to expand the focus to include any pressing need affecting the targeted communities.

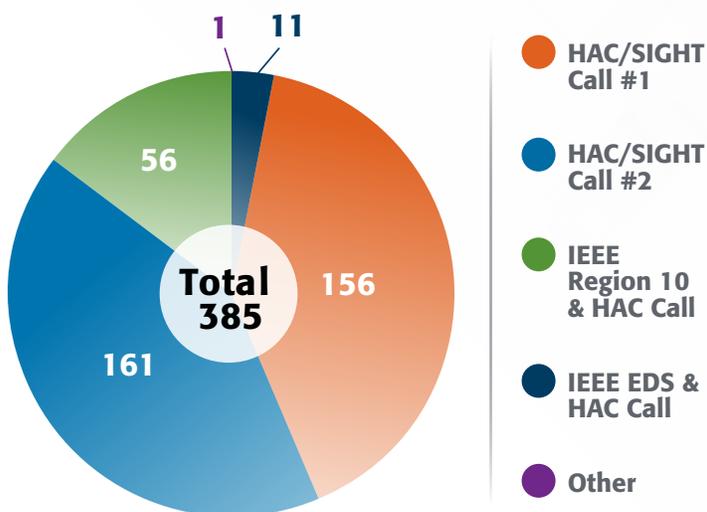
An outpouring of submissions from IEEE Members around the world came in response. In 2020, HAC received 229 proposals, setting a new record since HAC and SIGHT were established. In 2021, HAC surpassed the record from the previous year with 317 proposals received for the HAC/SIGHT calls for proposals. An additional 68 proposals were submitted to HAC joint calls for proposals with other IEEE entities, as detailed earlier in this report, meaning that HAC Projects received a total of 385 proposals from 45 countries over the course of the year.



*Implementing a “COVID-related project brought safety to personal and professional lives...private health care centres [and] small village communities can’t afford expensive medical services [or] COVID precautionary measures and hence, such... projects potentially safeguard them from this scary pandemic and strengthen them to survive in this.*

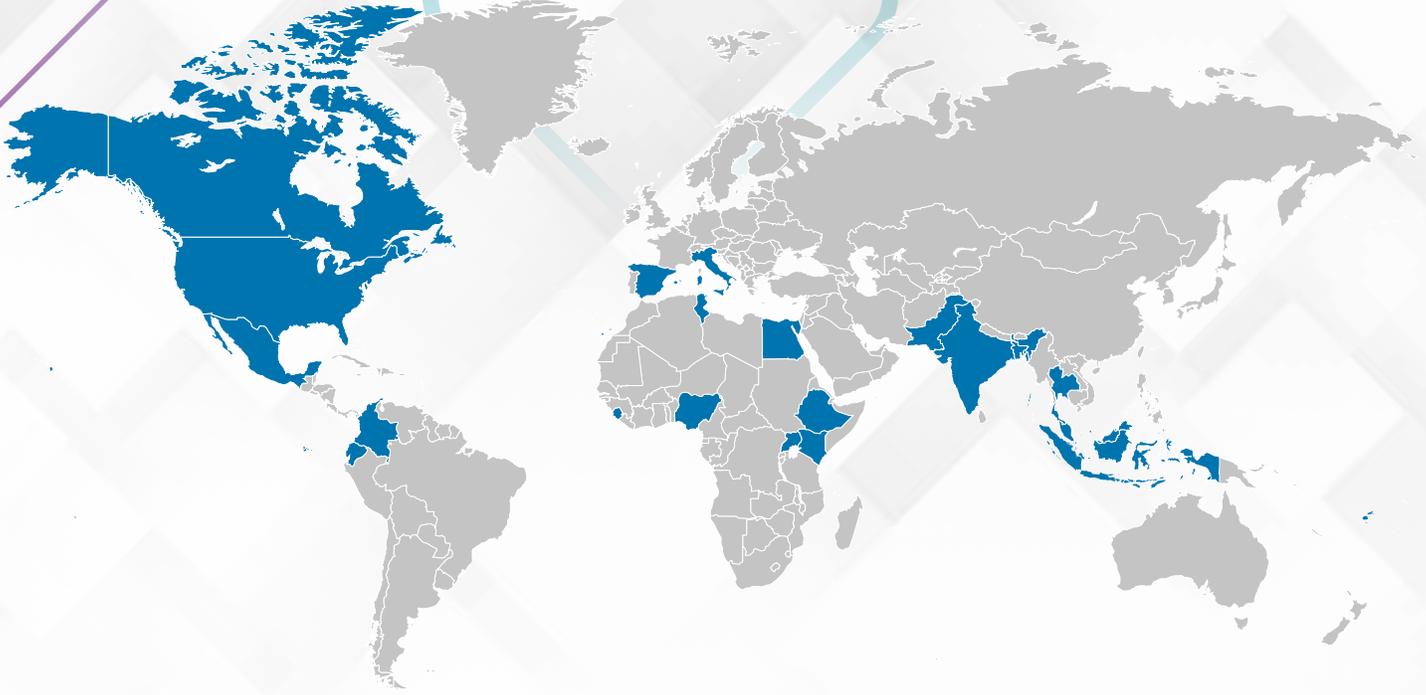
– HAC/SIGHT Project Leader

### Total 2021 HAC project proposals received



### HAC & SIGHT Project Proposals Received 2017–2021





These numbers demonstrate that there are more IEEE Members interested in engaging with HAC Projects than ever before. In 2021, HAC received proposals from IEEE Members for the first time from six new countries: Ethiopia, Thailand, Italy, Hungary, Panama, and China. The overall consistent increase in the number of proposals received over the past several years shows a growing interest among IEEE Members to use their technological skills to give back and contribute to local sustainable development efforts. HAC believes that this growth trend will continue into 2022 and the foreseeable future as there are over 95,000 IEEE Members who have indicated a general interest in humanitarian and philanthropic opportunities in their Membership interest profile and more than 22,000 individuals who have taken a further step of joining the IEEE SIGHT community. HAC considers SIGHT Membership to be an important initial step of learning more about specific humanitarian technology activities within IEEE, and an indicator of individuals who would consider getting involved. This report will provide more information about IEEE SIGHT in the following section.

After careful consideration of all proposals received, IEEE HAC/SIGHT awarded over US\$285,000 in funding to 92 projects that will take place in 22

countries. HAC awarded funding for the first time to projects that will take place in Fiji, Italy, Ethiopia, Sierra Leone, Thailand, and Spain.

Every proposal submitted received specific recommendations from the HAC/SIGHT Projects team to help applicants develop stronger proposals in the future. The feedback and encouragement provided this year have prepared the foundation for even stronger proposals in 2022.

### **2020 Project Preliminary Assessment Information**

In 2020, IEEE HAC/SIGHT awarded funding to 102 projects to be implemented in response to COVID-19 in 29 countries. To date, approximately 70% of the projects from 2020 are fully complete. Some project teams have applied for an additional round of IEEE HAC/SIGHT funding in order to replicate or scale-up their solutions.

All project teams selected by HAC/SIGHT for funding agree to certain reporting requirements to share the results of their work. Through their final reports, HAC has collected the following aggregated data to celebrate a part of the significant impact that HAC/SIGHT volunteers around the world have made by implementing their funded projects.



### Overall, through HAC Project grants in 2020:

- > Over 35,000 individuals received personal protective equipment (PPE) to protect themselves against COVID-19.
  - > Over 1,000 individuals in Africa were trained to make locally sourced sanitizer and other PPE.
  - > Eight prototypes were successfully built to increase safety measures and efficiency within hospitals.
  - > Four regional tracking apps were built, providing crucial, accurate COVID-19 case information in real time.
  - > Four digital literacy curriculums were created that will continue to be used to increase knowledge and skills.
  - > Over 100 local partnerships were developed, and success stories were shared by over half the projects through local news channels, newspapers, and various social media platforms.
  - > 80% of IEEE Member project leads reported that their project met local needs as confirmed by locals, was realistic and addressed the full complexities of the population served, and considered possible risks comprehensively and planned accordingly.
  - > Two-thirds (67%) of projects met all of their specific, measurable, and time-sensitive outcomes, as evidenced by a mixture of qualitative and quantitative data.
- > Two-thirds (67%) of projects demonstrated their positive impact on the daily experience of the target population/community, as evidenced by data, and that the initiative has affected people who otherwise would not have access to project benefits.
  - > Almost all projects (94%) considered other initiatives happening in the area and connected where possible, instead of working in isolation.
  - > 100% of IEEE Member project leads reported that the members of their project teams listened to each other with patience and respect, relied on each individual's strengths to build the most successful project, and shared progress through consistent, open communication and shared documents.
- > To learn more about specific projects that took place in 2020, please see the [IEEE HAC/SIGHT Success Story Portfolio](#)**

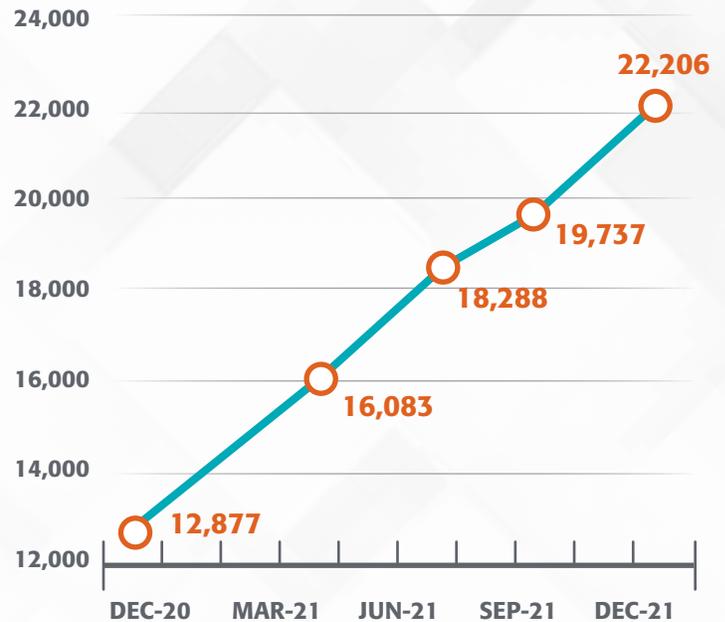
# Through Its Global Network, HAC Creates Humanitarian Technology Impact in Underserved Communities Around the World

The IEEE Special Interest Group on Humanitarian Technology, is a program and subcommittee of HAC. The SIGHT global network of IEEE volunteers partners with underserved communities and local organizations to leverage technology for sustainable development. It serves as a catalyst for change and a platform to share ideas, gain experiences, and grow as a student or professional. Both IEEE Members and non-Members may join SIGHT, which HAC considers to be one of the first steps to getting involved with humanitarian technology activities within IEEE. SIGHT members receive consistent communications from both HAC and SIGHT about funding and educational opportunities, in addition to training materials that specifically focus on humanitarian technology and sustainable development.

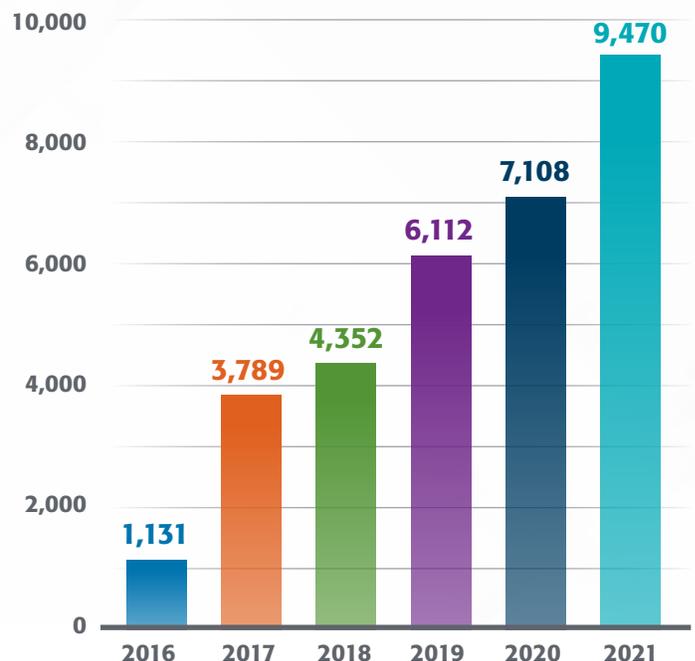
SIGHT members can be found all over the world, and approximately 66% of them are students and young professionals. Many times, those who participate in SIGHT activities find it to be a rewarding experience that allows for gaining hands-on knowledge, improving technical skills, networking, and making positive change in the local community.

Total SIGHT membership has nearly doubled over the last twelve months; as of 12 December, there were 22,206 members in all ten IEEE Regions and 125 countries — a new record for the program. SIGHT has also steadily added more new members each year since the individual membership was established in 2016, indicating a growing interest among IEEE Members to learn more about how technological skills can meet humanitarian needs and have a meaningful impact on sustainable development challenges.

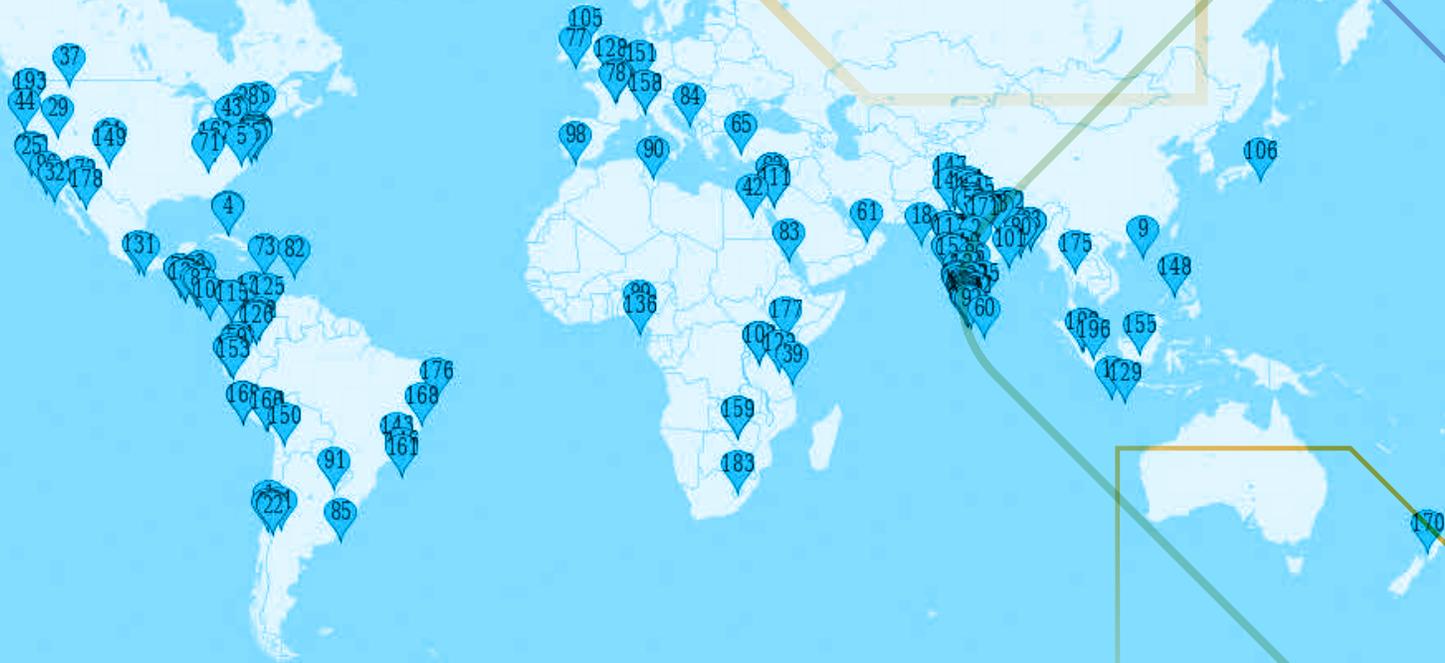
**SIGHT Membership Growth Year over Year (2020 – 2021)**



**New SIGHT Membership by Year**



## LOCATION OF SIGHT GROUPS AROUND THE WORLD



SIGHT encourages its individual members to form Groups consisting of at least six IEEE Members who come together to learn about sustainable development, build relationships within their local communities, and implement humanitarian technology and sustainable development projects that utilize technology and local partnerships to tackle key problems within the community. Since SIGHT's inception in 2011, 203 SIGHT Groups have been established in 53 countries. In 2021, 23 new SIGHT groups were established in six different countries, including the first SIGHT Groups to be formed in South Africa, Ethiopia, and Ghana. Upon formation, new Groups receive a small amount of seed funding from IEEE SIGHT to kickstart operations, undertake community surveys, or recruit volunteers. Funding for four of the new Groups in 2021 was covered by generous donor contributions to the SIGHT Fund of the IEEE Foundation.

In 2021, the SIGHT Steering Committee finalized the first SIGHT Group Operations Handbook to promote consistency in Group structure, provide guidelines to help Groups form and stay active, and ensure correct information about Groups is easily accessible.

“Being involved with HAC/SIGHT has opened my vision of the world and empowered my passion and vocation for [the] humanitarian application of technology.

- HAC/SIGHT Project  
Proposal Reviewer



IEEE SIGHT embodies many important IEEE values, including member engagement on a local level, focus on humanitarian impact, community visibility, and collaboration across IEEE organizations. That is why I provide continuing financial support for IEEE SIGHT through the IEEE Foundation.

- JAMES A. JEFFERIES,  
2018 IEEE President

### The IEEE SIGHT Fund of the IEEE Foundation

The IEEE Foundation is the philanthropic partner of IEEE, with the mission of inspiring an engaged community and leveraging the generosity of donors to enable IEEE programs that improve access to technology, enhance technological literacy, and support education and the IEEE professional community. The SIGHT Fund of the IEEE Foundation was established in 2019 to support the humanitarian and sustainable development projects that SIGHT volunteers undertake in their local communities.

Donations to the SIGHT Fund help form the IEEE sustainable development leaders of the future and incubate projects that support IEEE's mission of advancing technology for the benefit of humanity in communities around the globe. The fund also provides a mechanism to facilitate HAC and IEEE entity joint funding programs, such as the call for proposals with the IEEE Electron Devices Society (EDS) and the IEEE Antennas and Propagation Society (AP-S). HAC and SIGHT would like to express sincere gratitude to each and every one of the 2021 SIGHT Fund donors. Your generous support makes a meaningful difference as HAC and SIGHT volunteers strive to make an impact in their local communities.

Those interested in supporting the impactful work of HAC/SIGHT financially are invited to make a donation of any amount to the [IEEE SIGHT Fund of the IEEE Foundation](#)

### Nurturing a Network of Volunteers

IEEE SIGHT Day was established in 2020 to foster a spirit of community for the global SIGHT network, increase awareness of IEEE SIGHT within IEEE, promote the opportunity to support SIGHT financially, and celebrate the impact that HAC/SIGHT volunteers and SIGHT Groups are making. The second annual SIGHT Day, "Celebrating 10 years of IEEE SIGHT," was held on 28 April. At least 36 events and activities were held by a number of SIGHT Groups and the SIGHT Steering Committee with over 1,500 participants from seventeen countries. Included in the activities were the first-ever SIGHT Group Socials, virtual networking and educational sessions for IEEE SIGHT Group representatives. One attendant shared that they most liked, "the possibility to network with other SIGHT representatives around the globe and feel we are truly a community trying to achieve the same goals."



## Assessing HAC and SIGHT Impact

As seen throughout this report, the unique value proposition and benefits of HAC deliver real value to IEEE, its organizational units, individual Members, and of course, the communities impacted by HAC/SIGHT volunteers. HAC/SIGHT feet-on-the-ground humanitarian technology and sustainable development activities are a proven member engagement and even recruitment strategy. This is supported by findings from a fall 2021 survey conducted with funded project leaders, project proposal reviewers, and SIGHT Group chairs and officers.

SIGHT has been the most impactful and challenging group within IEEE in which I have participated so far. It's the perfect group to make a difference in your community and apply your engineering skills to tackle problems that matter. It's been a pleasure contributing in all possible ways, from volunteering to giving some financial support so that others can unlock the potential of technology for good.

- DIANA GIL, CHAIR,  
IEEE Montreal Section SIGHT

## The findings revealed that:

- > **Nearly all respondents (95%) are likely to renew their IEEE Membership. (70%) Say their participation in HAC/SIGHT activities has a strong influence on their likelihood to renew their Membership.**
- > **Nearly all (91%) are likely to participate in an HAC project or SIGHT Group next year.**
- > **Nearly nine in ten (87%) are satisfied with their HAC/SIGHT Participation.**
- > **Nearly nine in ten agreed that they have developed new area(s) of expertise and improved skills such as leadership, communication with others, collaboration with others, project management, and identifying the right metrics to assess a project.**
- > **Nearly nine in ten (89%) agreed that this position has helped them develop an expanded perspective of the world.**
- > **Nearly nine in ten (87%) agreed that this position has introduced them to new social or professional connections.**
- > **Nearly nine in ten (87%) say that members of their HAC/SIGHT Team have become members of IEEE as a result of their experience participating.**

Both HAC and SIGHT look forward to continue building the humanitarian technology and sustainable development community within IEEE in 2022.





# IEEE HAC Increases Understanding of the Role of Engineering and Technology in Sustainable Development

Technology is a foundational component of solving humanitarian issues in the sustainable development space. The needs that arise can only be addressed through an interdisciplinary approach, and engineers have a vital role to play. IEEE can offer contributions that other organizations cannot, and HAC is uniquely positioned at the intersection of technology and sustainable development. Its large global network of over 22,200 technologists can design and deliver solutions that touch the lives of people in underserved communities around the world. With this being the case, HAC recognizes the related needs to enhance public visibility on the role of engineering in addressing complex real-world challenges, and raise awareness on how technologists, especially IEEE members, can contribute to grassroots sustainable development efforts.

## HAC Launches a New Global Strategic Program

To take action on this opportunity, HAC launched a new global strategic program when it hosted the inaugural IEEE HAC Global Summit on 10 November. This was a major milestone in 2021. The Summit was a first-of-its-kind IEEE event that brought together IEEE Members, leaders from a variety of IEEE entities, and global leaders in the sustainable development space to highlight the unique HAC value proposition, exhibit HAC engagement efforts, showcase HAC/SIGHT projects, and contribute to the discussion on the application of humanitarian technology to address local challenges. It was a transformative opportunity that showcased HAC's potential, through its volunteers, supporters, and partners, to create a better world by 2030.



The event was a tremendous success. HAC was proud to welcome 26 speakers from 14 countries and 345 registrants from 48 countries. Speakers included IEEE President Susan K. Land, volunteer leaders from IEEE organizational units, and world leaders in the sustainable development space such as:

- **Mr. Houlin Zhao**, International Telecommunication Union (ITU) Secretary-General
- **Dr. Paola Vega Castillo**, Minister of Science, Technology and Telecommunications, Costa Rica
- **Dr. Vint Cerf**, Vice President and Chief Internet Evangelist, Google
- **Ms. Iana Aranda**, President, Engineering for Change
- **Dr. Sthitje Bom**, Senior Director, Global Wafer System, Seagate Technology





Three panel sessions highlighted some of the HAC efforts and achievements in 2021. The panel, “Rapid Innovation at the Local Level: How IEEE HAC/SIGHT Addressed COVID-19 Circumstances Around the World,” featured HAC/SIGHT project leaders who shared how they identified local challenges and collaborated with others to develop and execute solutions during the COVID-19 pandemic. Panelists shared why their solutions were relevant, cultural and contextual background, how they overcame unforeseen challenges, and advice for others interested in conducting a similar project. Another panel, “Engaging Students, Young Professionals, and Women in IEEE Sustainable Development Activities,” showcased how IEEE sustainable development activities are inspiring and enabling students, young professionals, and women around the world to develop skills and pursue/stick with engineering, all while contributing to their local communities. The final panel, “Leveraging the Breadth of IEEE to Achieve Sustainable Development Impact,” featured IEEE leaders who detailed how their programs and organizational units have partnered with HAC to increase awareness, train members, operationalize projects, and contribute to the greater sustainable development community.

From memorable speeches to enlightening panels to a lively fireside chat with important calls to action, the Summit was able to convene, inform, and motivate a global audience to apply technology to address

local sustainable development challenges. Attendees learned about the important work IEEE volunteers are already doing, examples of how IEEE programs and organizational units have partnered with HAC to increase awareness, projects that have been awarded funding from HAC/SIGHT, and specific ways they could use their technological expertise for social good.

HAC expresses its gratitude to all the participants, speakers, HAC Members, and the IEEE HAC/SIGHT staff team for their efforts to organize and host the Summit. Recordings of the sessions are available on the HAC/SIGHT channel on IEEE.tv for those who were not able to attend the event. HAC is already planning to hold the second edition of the Summit in 2022, which will certainly prove to have even greater reach.

Part of the Summit’s success was due to the foundation laid when HAC participated in certain high-visibility external events, as was mentioned earlier in this report. This includes the HAC side event at the annual Multi-stakeholder Forum on Science, Technology and Innovation for the Sustainable Development Goals (STI Forum), the HAC panel at The Global Sustainable Technology & Innovation Community (G-STIC) Conference, and HAC participation in several United Nations (UN) related events in the global sustainable development space.



# IEEE HAC Looks to the Future

In 2022, HAC will continue to invest in programs that increase value to IEEE through sustainable development and humanitarian technology activities. Internally, we will continue to strengthen partnerships throughout the organization to offer compelling member engagement and professional development opportunities at the grassroots level. Externally, HAC will explore additional opportunities to partner with industry and the sustainable development space to strengthen IEEE's position as a leader in this area. We aim to grow the HAC Global Summit to reach further and wider within and beyond IEEE and contribute meaningfully to the greater sustainable development community.

## OPPORTUNITIES TO GET INVOLVED WITH HAC/SIGHT

- Identify potential opportunities for collaboration and joint programs
- Publicize HAC/SIGHT opportunities, such as the calls for proposals
- Serve on an HAC/SIGHT Committee in 2022
- Add free SIGHT membership to your IEEE membership
- Form a SIGHT Group to assess needs in your local community, apply for financial resources, and implement a sustainable technological solution
- Take part in the free, online courses on the IEEE Learning Network (ILN) that equip participants with a basic understanding of humanitarian technology and sustainable development topics
- Read and share this report and the 2021 HAC Quarterly Reports

### CONTACT INFORMATION

Write to us at  
**[hac-office@ieee.org](mailto:hac-office@ieee.org) with your  
ideas for collaboration!**  
**[hac.ieee.org](http://hac.ieee.org)**

# The 2021 IEEE Humanitarian Activities Committee, Liaisons, and Staff Support

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Humanitarian Activities  
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## Humanitarian Activities Committee

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