

Official Rules

NO PURCHASE OR PAYMENT IS NECESSARY TO ENTER OR WIN. A PURCHASE WILL NOT IMPROVE YOUR ODDS OF WINNING.

Contest: IEEE Connecting the Unconnected Challenge (the “Contest”)

Sponsor: The Institute of Electrical and Electronics Engineers, Incorporated, 445 Hoes Lane, Piscataway, New Jersey, USA, 08854 (“Sponsor”)

Eligibility: Contest is open to residents of the United States of America and other countries, where permitted by local law, who are the age of eighteen (18) and older. Employees of Sponsor, its agents, affiliates and their immediate families are not eligible to enter Contest. Entrants may be subject to rules imposed by their institution or employer relative to their participation in contests and should check with their institution or employer for any relevant policies. Void where prohibited by law.

Agreement to Official Rules: By participating in this contest, entrants agree to abide by the terms and conditions thereof as established by Sponsor. Sponsor reserves the right to alter any of these Official Rules at any time and for any reason. All decisions made by Sponsor concerning the Contest including, but not limited to the cancellation of the Contest, shall be final and at its sole discretion.

Entry Period: This Contest commences on **16 May 2022 and closes on 13 July 2022 at 11:59 PM EDT** (“Entry Period”). Sponsor's server is the official clock for the Contest. Entries received before or after the entry period are void.

How To Enter:

The competition has two main tracks (with sub-categories as described below):

Proof-of-Concept Track

This challenge invites submissions from individuals or groups with a basic proof-of-concept implementation or a pilot program of an original concept that can show preliminary results and/or successful field deployment(s). The submission in this category should include a description of the general design and proposed functionality including implementation of specific features. In addition to implementation, it can include a (small-scale) deployment/exercise to verify the idea's potential and/or to illustrate its feasibility.

Concept-Only Track

This challenge invites submissions from individuals or groups who have novel ideas that only exist “on paper” with simulation or analytical results, demonstrating potential towards the Connecting the Unconnected (CTU) vision of affordably connecting unconnected populations.

Subcategories

IEEE Future Networks (FNI) recognizes that affordability can be just as big a barrier as technical infrastructure, and that many people do not use the internet even where connectivity exists, and hence there are many impediments where innovation is needed to overcome them. In order to address these challenges, both tracks of the Connecting the Unconnected Challenge invite applications that address the problem in one of three different categories: innovative **Technology Applications (TA)** to increase broadband access or otherwise enable connectivity; innovative **Business Models (BM)** that result in increased affordability; or innovative solutions for **Community Enablement (CE)** or the likelihood that populations choose to adopt available broadband access when previously they did not. (In these cases, supply and affordability are not problems, but people still don't use the internet.)

Submissions for both tracks are limited to early-stage projects that have not reached full deployment regardless of proposed scale or type and size of the proposing entity.

The competition in both tracks consists of three (3) phases. Phase 1 is open for all. After an initial round of judging, short-listed applications/submissions will be invited to complete a Phase 2 submission. A smaller number of Phase 2 applications will be invited to Phase 3, a live/interactive (virtual) session with judges.

Phase 1 submission, due by 13 July 2022 at 11:59 PM EDT, includes a general description of the solution via a short (500-word maximum) abstract and completion of form questions, to be completed in our EasyChair submission portal. (URL: <https://easychair.org/conferences/?conf=ctuc21> <https://easychair.org/conferences/directory?a=26623154>— a free EasyChair account is required.)

The abstracts in Phase 1 should address the relevance and innovation aspects of the KPIs listed below.

Entrants selected to move to Phase 2, will be asked to include more detail and address all aspects of the KPIs. The selections in this phase will be on the basis of technical completeness according to all aspects of the KPIs.

Phase 2 applicants will also have the option to have their submission reviewed by the IEEE Standards Association, for a review of potential standardization opportunities within their Rural Communication program. This review is voluntary and has no bearing on the competition judging process.

Successful submissions from Phase 2 will be notified to attend a virtual presentation session with judges in October 2022.

Participants may share additional information with the judges regarding their submission and are responsible for determining the information to be submitted and the intellectual property aspects of such a submission. In addition to mandatory submission elements, the selection committee will allow submission of optional items supporting the proposal (such as videos, PowerPoints, etc.) in Phase 2.

Those selected for Phase 3 will deliver a live, virtual presentation to the judges. Submission guidelines for the final presentation will be provided with the finalist notification. It is expected that the applications will provide a 10-minute presentation followed by a 5-minute Q&A. Winners will be notified by mid- to late-October, and will be invited to present their solutions during the IEEE Connecting the Unconnected Summit in November, where they will be recognized for their accomplishments in front of a global audience.

LIMIT ONE (1) ENTRY PER TRACK PER APPLICANT.

Only entries submitted in accordance with these Official Rules will be eligible for consideration. No alternate means of entry permitted. All entries become the exclusive property of Sponsor and will not be acknowledged or returned.

Selection of Winner:

A Selection Committee of judges qualified to evaluate submissions of this nature has been created by FNI. Submissions will be assessed based the technical and societal impact criteria listed below (the KPIs). Judges will use a rubric and scoring system to evaluate each submission.

Innovation

Something new or different. The degree to which the solution is novel and original. Is the solution unique compared to what already exists to increase or improve connectivity?

Relevance

The degree to which the solution solves a relevant problem/issue related to connectivity and the digital divide, particularly with respect to underserved communities in the targeted area. Does the solution rightly address the identified problem and deliver real value to its users? Does the solution fit the problem for the specific use case? Is there demonstrated evidence of end user acceptance/adoption?

In order to ascertain whether this is true, a solution with a pilot should provide relevant information/data about outcomes or impact for end beneficiaries. The impact could be measured on cost, efficiency, or usage statistics.

Sustainability

We define “sustainability” in the following respects:

- The likelihood that a particular solution will achieve financial sustainability without ongoing subsidies in the future. This could be measured by information on market “fit,” or any evidence of buy-in from 3rd party entities willing to invest in it (communities, intermediaries), or other evidence of financial self-sufficiency.
- The likelihood of ongoing technical operations over multiple years. Solutions that require a great deal of ongoing maintenance/support, or rely on expensive or complex equipment that is not available locally, are unlikely to score well in this category.

Potential for scale

- Ease of implementation: Does this solution have potential to easily scale with a certain geographic/demographic? Could it work outside of the targeted geography? Is there a likelihood of market/country adoption, penetration, and reach?
- Could the solution benefit/potentially benefit a broad number of people and/or support areas with demonstrated lack of connectivity or usage?

Readiness

- Is there a strong team in place to replicate/scale?
- Does the team have a vision for growth?
- Does the team have a strategy for intellectual property protection?

Inclusive access

- Is the solution considerate of and beneficial to traditionally underserved groups/people? (Women, low income, accessibility challenged, LGBTQ+, children, etc.)
- Can the solution work in a person's home or does it depend on a location outside of the home, like a Wifi hotspot or community center?
- Higher scores will go to solutions that help enable a home environment.

Risk level

- Is the solution high risk, either in terms of implementation or adoption? Is it an "out there" idea?
- High-risk solutions are acceptable, but the anticipated impact also needs to be higher to balance the risk.

Efficacy

- What is the cost/benefit ratio of the solution?
- This can be calculated as the cost of the solution per person it benefits. The lower the ratio, the higher the score.

Social Impact

- How large are the potential positive impacts on or contributions to society in terms of citizens' quality of lives?
- Are the impacts attributable directly to the solution?
- If the solution is targeted towards an intermediary (like an ISP or Telco operator), what is the evidence that the benefits (such as lower prices, etc.) are being or will be passed on to the end user?

Subcategory specific criteria

If it is a Technology Applications (TA) solution, the solution will be evaluated for its level of technology soundness, or whether it is likely to be workable and effective from a technological perspective. This is an especially important question for the Concept-Only track where the technology has not yet been proven.

If it is a Business Model (BM) solution, the solution will be evaluated on whether it has or can demonstrate an ability to improve affordability. This means that the cost per person connected will be reduced in a significant fashion, or (in the Concept-Only track) have the high potential to do so. In this case, it is not necessary that there be a technological innovation, only a unique way to reduce prices.

If the solution is a Community Enablement (CE) solution, then it is anticipated to be broadly effective in enabling more users to make increased use of the Internet, irrespective of price. CE also impacts on the demand side by doing one or more of the following: improving digital skills and addressing the ability of people to use the internet; improving/increasing the relevancy of the internet for those who do not use it; addressing language constraints; addressing disabilities/accessibility issues.

It is possible that a solution may fit more than one category among TA, BM and CE. We ask competitors to choose the category they think fits the best, but all aspects of each application will be taken into consideration.

Prize: The prize(s) for the Contest are being sponsored by IEEE. A \$60,000 prize pool will be set aside to be distributed to winners in the different tracks. Proof-of-Concept prizes will be higher than Concept-Only prizes, and no single prize shall exceed \$10,000. No substitution of Prize permitted, except that Sponsor reserves the right to substitute a prize or prize component of equal or greater value in its sole discretion for any reason at time of award. Sponsor shall not be responsible for service obligations or warranty (if any) in relation to the prize(s). Prize may not be transferred prior to award. All other expenses associated with use of the prize, including, but not limited to local, state, or federal taxes on the Prize, are the sole responsibility of the winner. Winner(s) understand that delivery of a prize may be void where prohibited by law and agrees that Sponsor shall have no obligation to substitute an alternate prize when so prohibited.

Notification of Potential Prize Winners: The Prize Winners will be notified by e-mail within 14 days of the selection date. If a Prize Winner does not acknowledge acceptance of the Prize within 14 business days after being notified that he or she is a Prize Winner, or if a potential Prize Winner does not return the signed claim forms within the required time, or is otherwise found to be ineligible or not in full compliance with these Official Rules, another Prize Winner will be chosen using the same procedure specified above. Potential Prize Winner may be asked to execute and return to Sponsor a declaration of eligibility and liability/publicity release, where lawful, within fourteen (14) days of attempted notification. Winner may waive the right to receive the prize. The decisions of Sponsor are final and binding in all respects.

Release, Publicity, and Privacy: By receipt of the Prize and/or, if requested, by signing an affidavit of eligibility and liability/publicity release, the Prize Winner consents to the use of his or her name, likeness, business name and address by Sponsor for advertising and promotional

purposes, including but not limited to on Sponsor's social media pages, without any additional compensation, except where prohibited. No entries will be returned. All entries become the property of Sponsor. For the avoidance of doubt, Sponsor shall obtain no intellectual property ownership in the underlying material submitted by Entrants. The Prize Winner agrees to release and hold harmless Sponsor and its officers, directors, employees, affiliated companies, agents, successors and assigns from and against any claim or cause of action arising out of participation in the Contest.

Sponsor assumes no responsibility for computer system, hardware, software or program malfunctions or other errors, failures, delayed computer transactions or network connections that are human or technical in nature, or for damaged, lost, late, illegible or misdirected entries; technical, hardware, software, electronic or telephone failures of any kind; lost or unavailable network connections; fraudulent, incomplete, garbled or delayed computer transmissions whether caused by Sponsor, the users, or by any of the equipment or programming associated with or utilized in this Contest; or by any technical or human error that may occur in the processing of submissions or downloading, that may limit, delay or prevent an entrant's ability to participate in the Contest.

Sponsor reserves the right, in its sole discretion, to cancel or suspend this contest and award a prize from entries received up to the time of termination or suspension should virus, bugs or other causes beyond Sponsor's control, unauthorized human intervention, malfunction, computer problems, phone line or network hardware or software malfunction, which, in the sole opinion of Sponsor, corrupt, compromise or materially affect the administration, fairness, security or proper play of the contest or proper submission of entries. Sponsor is not liable for any loss, injury or damage caused, whether directly or indirectly, in whole or in part, from downloading data or otherwise participating in this Contest.

Entrant acknowledges and agrees that Sponsor may collect, store, share, and otherwise use personally identifiable information provided during the registration and application process and the Contest, including, but not limited to, name, mailing address, phone number, and email address. Sponsor will use this information with accordance with its Privacy Policy (https://www.ieee.org/security_privacy.html), including for administering the Contest and verifying Entrant's identity, postal address, and telephone number in the event an entry qualifies for a prize. Entrant's information may also be transferred to countries outside the country of Entrant's residence, including the United States. Such other countries may not have privacy laws and regulations similar to those of the country of Entrant's residence. If an Entrant does not provide the mandatory data required at registration, Sponsor reserves the right to disqualify the entry.

Representations and Warranties Regarding Entries: By submitting an Entry, you represent and warrant that your Entry does not and shall not comprise, contain, or describe, as determined in Sponsor's sole discretion: (A) false statements or any misrepresentations of your affiliation with a person or entity; (B) personally identifying information about you or any other person; (C) statements or other content that is false, deceptive, misleading, scandalous, indecent, obscene, unlawful, defamatory, libelous, fraudulent, tortious, threatening, harassing, hateful, degrading, intimidating, or racially or ethnically offensive; (D) conduct that could be considered a criminal

offense, could give rise to criminal or civil liability, or could violate any law; (E) any advertising, promotion or other solicitation, or any third party brand name or trademark; or (F) any virus, worm, Trojan horse, or other harmful code or component. By submitting an Entry, you represent and warrant that you own the full rights to the Entry and have obtained any and all necessary consents, permissions, approvals and licenses to submit the Entry and comply with all of these Official Rules, and that the submitted Entry is your sole original work, has not been previously published, released or distributed, and does not infringe any third-party rights or violate any laws or regulations.

Limitations of Liability/Reserved Rights: Neither Sponsor, its parent, subsidiary or affiliated companies, nor its advertising or promotional agencies shall have any obligation, liability or responsibility with regard to (i) entries that contain incorrect or inaccurate information or do not comply with these Official Rules, (ii) entries, prize claims or notifications that are lost, late, incomplete, illegible, unintelligible, damaged or otherwise not received by the intended recipient, in whole or in part, due to computer, technical or other error of any kind, (iii) telephone, electronic, hardware, software, network, Internet or computer malfunctions, failures or difficulties of any kind, (iv) any condition caused by events beyond the control of Sponsor that may cause the Contest to be disrupted or delayed, (v) any printing or typographical errors in these Official Rules or any other materials associated with the Contest, or (vi) any damages or losses of any kind caused by any prize or resulting from participation in the Contest, accessing, uploading or downloading data in connection with the Contest, or acceptance, possession or use of any prize. Sponsor, in its sole discretion, reserves the right to disqualify any entrant tampering with or abusing the entry process or the operation of the Contest or otherwise violating these Official Rules. Sponsor, in its sole discretion, further reserves the right to cancel, terminate, suspend or modify the Contest if the Contest cannot be completed as planned because of infection by computer virus, bugs, tampering, unauthorized intervention or technical failures of any sort and to select a winner from among eligible entries unaffected by such event, if any.

Disputes: EACH ENTRANT AGREES THAT: (1) ANY AND ALL DISPUTES, CLAIMS, AND CAUSES OF ACTION ARISING OUT OF OR IN CONNECTION WITH THIS CONTEST, OR ANY PRIZES AWARDED, SHALL BE RESOLVED INDIVIDUALLY, WITHOUT RESORTING TO ANY FORM OF CLASS ACTION, PURSUANT TO ARBITRATION CONDUCTED UNDER THE COMMERCIAL ARBITRATION RULES OF THE AMERICAN ARBITRATION ASSOCIATION THEN IN EFFECT, (2) ANY AND ALL CLAIMS, JUDGMENTS AND AWARDS SHALL BE LIMITED TO ACTUAL OUT-OF-POCKET COSTS INCURRED, INCLUDING COSTS ASSOCIATED WITH ENTERING THIS CONTEST, BUT IN NO EVENT ATTORNEYS' FEES; AND (3) UNDER NO CIRCUMSTANCES WILL ANY ENTRANT BE PERMITTED TO OBTAIN AWARDS FOR, AND ENTRANT HEREBY WAIVES ALL RIGHTS TO CLAIM, PUNITIVE, INCIDENTAL, AND CONSEQUENTIAL DAMAGES, AND ANY OTHER DAMAGES, OTHER THAN FOR ACTUAL OUT-OF-POCKET EXPENSES, AND ANY AND ALL RIGHTS TO HAVE DAMAGES MULTIPLIED OR OTHERWISE INCREASED. ALL ISSUES AND QUESTIONS CONCERNING THE CONSTRUCTION, VALIDITY, INTERPRETATION AND ENFORCEABILITY OF THESE OFFICIAL RULES, OR THE RIGHTS AND OBLIGATIONS OF ENTRANT AND SPONSOR IN CONNECTION WITH THE CONTEST, SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS

OF THE STATE OF NEW JERSEY, WITHOUT GIVING EFFECT TO ANY CHOICE OF LAW OR CONFLICT OF LAW, RULES OR PROVISIONS (WHETHER OF THE STATE OF NEW JERSEY OR ANY OTHER JURISDICTION) THAT WOULD CAUSE THE APPLICATION OF THE LAWS OF ANY JURISDICTION OTHER THAN THE STATE OF NEW JERSEY. SPONSOR IS NOT RESPONSIBLE FOR ANY TYPOGRAPHICAL OR OTHER ERROR IN THE PRINTING OF THE OFFER OR ADMINISTRATION OF THE CONTEST OR IN THE ANNOUNCEMENT OF THE PRIZES.

Contest Results and Official Rules: To obtain the identity of the Prize Winner and/or a copy of these Official Rules, send a self-addressed stamped envelope to **Brad Kloza**, The Institute of Electrical and Electronics Engineers, Incorporated (“IEEE”), 445 Hoes Lane, Piscataway, New Jersey, USA, 08854.