IEEE SPS & IEEE HAC Projects Call for Proposals on
Signal Processing Technologies for Local Community Challenges

https://hac.ieee.org/ieee-sps-and-hac-projects/

IEEE Signal Processing Society (SPS) and IEEE Humanitarian Activities Committee (HAC) are partnering to conduct a special Call for Proposals to support projects in SPS chapters that utilize Signal Processing technologies to address local community challenges.

Awards from US$1,000 to US$2,000 will be made to selected projects that present a convincing plan to a) understand the real needs of a local community or local stakeholder organization and b) complete in no more than six months' time a pilot project utilizing Signal Processing technologies to address those local community challenges.

Any local community challenge that can map back to the UN Sustainable Development Goals (SDGs) can be considered.

Signal processing is the enabling technology for the generation, transformation, extraction, and interpretation of information. It comprises the theory, algorithms with associated architectures and implementations, and applications related to processing information contained in many different formats broadly designated as signals. Signal processing uses mathematical, statistical, computational, heuristic, and/or linguistic representations, formalisms, modeling techniques and algorithms for generating, transforming, transmitting, and learning from signals.

Projects must have a good connection to the local SPS chapter and engage a significant[1] number of SPS members.

Attributes of projects considered:

- Applicants must demonstrate understanding of the real needs of a local community or local stakeholder organization,
- Proposals must involve deployment of technology, customization of technology, and/or development of technology that is relevant to SPS's fields of interest.
- Projects should have active "local" IEEE SPS volunteer involvement. That means that key IEEE SPS members responsible for implementing the project are currently living in the country/countries where the project is to take place.
- Projects must have active local community involvement including relevant stakeholder groups. For example, those affected in the local community should be involved and have a voice in determining what is needed/desired and how a project will be designed and executed.

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[1] *"Significant" will depend on the scope of the project. Project teams should make a concerted effort to involve as many SPS members as appropriate for the project.*

- Proposals must clearly articulate the impact of the project and how it will be measured, using the Project Assessment Matrix to the best of the applicant's ability. We encourage applicants to take the free online HAC/SIGHT course on IEEE ILN, "Project Assessment, Monitoring and Evaluation" for clear instructions on how to complete the matrix and how to implement monitoring and evaluation best practices at all stages of a project.

Projects NOT considered:

- Projects that do not directly relate to a pressing need of a specific community.
- Projects that do not involve deployment of technology, customization of technology, and/or development of Signal Processing technologies.
- Projects that do not clearly articulate active community involvement.
- Projects that are primarily research or commercial in nature.
- Projects with no clearly articulated plan for impact measurement.

Any proposal which (i) is incomplete, (ii) does not meet the attributes of projects considered, (iii) requests less than US$1,000 or more than US$2,000, (iv) has a primary applicant with an ongoing or incomplete HAC/SIGHT funded project, (v) is not in English, (vi) has a primary applicant who is not an SPS member in good standing, or (vii) for which a completed IEEE SPS & HAC Projects Budget Template is not submitted will not be reviewed. All proposals must disclose if an identical or similar proposal is currently under evaluation for funding elsewhere.

Legal, Compliance, and Risk:

Humanitarian technology and sustainable development projects, due to their real-world nature, may involve a certain amount of risk. It is imperative that potential risks are acknowledged and mitigated wherever possible. IEEE has taken steps to mitigate several of these risks. While not a comprehensive list of risks or mitigation strategies, please review the following carefully:

- Projects MUST comply with all national/federal, state, and local laws, guidelines, safety codes, and restrictions.
- All IEEE Volunteer travel and associated meetings must adhere to all appropriate guidance from cognizant local public health authorities. Local policies around meetings and travel vary across the globe and continue to evolve. Volunteers engaged in IEEE related travel and in-person activities acknowledge the continuing risk of exposure to COVID-19. Volunteers should understand that IEEE will not indemnify them for any health risk or economic or other loss resulting from exposure to COVID-19 during IEEE activities. IEEE will not reimburse costs associated with mandatory or self-quarantine or isolation associated with IEEE Volunteer travel. If there is a risk of quarantine on entering or departing an area, IEEE Volunteers should instead plan to participate virtually when possible.
- IEEE is subject to the full range of U.S. economic sanctions and export control laws and as such IEEE may not be able to provide certain services to certain designated countries or entities or individuals from those countries or entities. A more detailed description of OFAC, economic

sanctions and embargoes applicable to IEEE can be found at
https://legal.ieee.org/compliance/ofac.

- All projects that involve children must follow IEEE Guidelines for Working with Children. Any project funding will be contingent on policy compliance.
- In the event the project collects, uses, processes, or otherwise involves the personal data of any individual, the grantee agrees that they shall, to the maximum extent possible, respect the privacy of those individuals. Grantee will comply with all applicable data privacy laws or regulations.
- Projects developing a medical technology device must collaborate with medical professionals and/or organizations. SPS & HAC funds may not be used for a) tests of medical equipment on people/animals or b) mass production and/or deployment of devices that require but have not yet undergone the appropriate regulation, such as government approvals. Medical device manufacturing and deployment are highly regulated fields and may require partnership with and approval by relevant national/federal, state, and/or local authorities.
- All projects considered for funding will be shared with the IEEE Office of Risk and Insurance Management Services (ORIMS) and, in some cases, the IEEE Legal & Compliance Department, for their review prior to final decision.
- Projects must avoid any actual, potential, or perceived conflicts of interest. Project teams must abide by the IEEE Principles of Business Conduct. For more information on what should be disclosed and how to avoid conflicts of interest, see the HAC website.
- Projects selected must agree to the HAC/SIGHT Intellectual Property Policy as a condition of funding.
- Legal agreements between IEEE and external entities must be vetted by IEEE Legal prior to signing.
- Funds will not be disbursed to individuals or external organizations. All funds must flow through a local IEEE OU - generally the local Chapter or Section. Any funds that are not used according to the approved budget will be returned to SPS & HAC.
- Please note that, depending on the nature of a project, additional review may be required at any stage of the project.

Submission Timeline:

- 6 May 2022 - 14 July 2022 at 11:59pm EDT.

Eligibility to apply:

- The primary applicant must be an IEEE & SPS Professional member grade or higher in good standing. SPS Student members or SIGHT members may be secondary applicants. Staff checks all member numbers during the intake process. If membership status of the primary applicant is in arrears, the submission cannot move forward.
- Each team may submit only one proposal.

- Project teams that received HAC, SIGHT, or SPS funding for a project in the past may only apply if the project has been successfully completed and all reporting requirements fulfilled.
- An IEEE OU - preferably the local Chapter or Section - must act as the fiscal agent. Applicants must discuss this with the Chapter/Section Treasurer prior to proposal submission. HAC generally cannot transfer funds to a Student Branch. IEEE financial requirements for funding disbursements will apply. Please see IEEE FOM 2.E - IEEE Unit Reporting (Including, but not limited to, Societies, Technical Councils, Geographic Units, and Conferences).
- Because U.S. economic sanctions and export controls are subject to frequent change, please review the U.S. Department of the Treasury's Office of Foreign Assets Control's Sanctions list to determine if your country can receive funding or contact hac-projects@ieee.org with any questions before applying.

Eligible Project Costs

IEEE SPS & HAC Projects prioritizes support of direct project costs, including necessary equipment, materials, supplies, and travel. Travel expenses must comply with IEEE Travel and Expense Reimbursement Guidelines. Given that projects are local in nature, travel costs should be minimal. Depending on local health and safety conditions, any non-essential travel and in-person components may need to be avoided.

No reimbursement of volunteer salaries or honorariums will be provided. Reimbursing the salary of anyone contributing to the project must be carefully justified. Associated salary costs should be clearly explained and not constitute any more than a minor part of the overall budget proposed.

No indirect costs will be considered for funding, including but not limited to overhead expenses, honorariums, competition or contest prizes, Facilities & Administrative (F&A) costs, tuition, etc.

Please discuss in advance with the IEEE OU that will be your fiscal intermediary (generally the local Chapter or Section) if there are any mandatory bank or administration fees that are incurred with a transfer of funds from HAC/SPS to the OU. These fees may be included in the project budget; however, the OU must confirm to HAC/SPS that these are mandatory.

Questions

Do you have any questions you wish to ask about the potential suitability of your proposal? If in doubt, please contact SPS at sps-mdi@listserv.ieee.org before developing and submitting your proposal.

Application Form

Section I. Project Overview and Background

1. Which of the following areas does your project address:
    1. Healthcare
    2. Education
    3. Information and Communications Technology (ICT)

4. Pollution Monitoring and Control
5. Transportation
6. Other area of Signal Processing technology that addresses a pressing community need

2. Is this a new submission or a request for additional funds for replication/scaling of a completed SPS or HAC/SIGHT project? If this is a replication/scaling of a past funded project, please provide the project name.

3. Executive summary of project, including location, needs, and intended solution.* (Maximum character length – 2,000).

4. Please check no more than three relevant UN Sustainable Development Goals (SDGs) that the project addresses.

Section II. Local Community Need and Stakeholder Engagement

1. Explain the local community need.* Please include context about why the need is a challenge and why it is important to the project location community. Character Limit: 1500

2. Who are the stakeholders and how will they be engaged in the project?* Stakeholder: An individual, group of people or organization that affects or is affected by an intervention. The stakeholders should include the project team, the project location community, and any others that will experience relevant and significant outcomes (intended or unintended, positive or negative). Examples include local governments, non-governmental organizations, service providers, institutions such as schools or hospitals, and so on. Character Limit: 1500

Section III. Project Assessment

1. Please explain the signal processing technology that will be used in the project. (Maximum character length – 1,500)

2. Please upload the completed Project Assessment Matrix, which measures outputs and outcomes.

3. Will your project use open source and result in open source resources for others to use? Please explain. If there is a STEM education component to the project, please state whether IEEE TryEngineering resources will be utilized and provide an explanation if they will not be used and what will be used instead (Maximum character length – 1,500)

4. Please describe any similar projects being implemented in the region where you will be working.* Are there any similar projects being implemented by other IEEE volunteers, external institutions, organizations, or the government in the region where you will be working? If so, what are they? (Character Limit: 1500)

Section IV. Project Implementation Plan

1. Project work plan and milestones (Maximum character length – 2,000) (Do not duplicate what is in the executive summary or project assessment.)

2. Are there any restrictions in place that would impact the execution of your project? For example, mobility restrictions due to COVID-19, shelter in place, etc. Please share details of the mitigation plan. (Maximum character length – 1,500)

3. Implementing team. If readily accessible, provide short profiles for each member of the proposed implementation team (IEEE and non-IEEE) that justifies how their participation will support achieving the objectives of the proposal. The profiles should explain the relevance of their expertise and previous field work experience (particularly in the beneficiary country). Please describe any previous relevant team collaborations. (Maximum character length –1,500)

4. Is the Implementing Team an IEEE SIGHT Group? If so, please list the name and number of your Group.*

5. Describe the potential risks and unintended consequences associated with this project, including, but not limited to, risk to people, property, and IEEE/SPS reputation. How will these be mitigated? Make sure to explain what measures will be taken to prevent safety hazards. Please be as detailed as possible. Please also highlight any political or economic risk associated with the country in which the project is located. The IEEE Office of Risk and Insurance Management Services (ORIMS) may review proposals to assess risk and provide guidance. (Maximum character length – 1,500)

6. Are any approvals needed to undertake this project, such as approval from the government, community entity, Institutional Review Board, and so on? If so, please include as attachments. If these approvals have not yet been secured, please explain your plan to do so. (Maximum character length – 1,500)

Section V. External Collaboration

Please note: legal agreements between IEEE and external entities, if applicable, need to be vetted by IEEE Legal prior to signing.

1. What external organizations, such as NGOs, government organizations, companies, etc., are you collaborating with? For each, please provide:
   ● Name of collaborating organization
   ● Scope of organization
   ● URL

2. What are the roles and responsibilities of the external organizations and IEEE/SPS? Please attach any documentation. Applicants are strongly encouraged to provide a letter of support from any organization with which they are working. If there is the need for a legal agreement, please note that here. (Maximum character length – 1,500)

Section VI. Requested Funding

1. Completed IEEE SPS and IEEE HAC Projects Budget Template. Note that all amounts should be stated in US Dollars.

2. Budget Justification - Do not simply list expenses. Please use this question to provide the reason as to why each budget line item has been included. This is meant to be a narrative. Also, if your project is to be co-funded by one or more other entities, please explain whether this funding is confirmed or what your plan is to confirm it. Reviewers will take into account the level of certainty in receiving any funding or resources requested from third parties. (Character Limit: 1000)

3. What, if any, mandatory bank fees would be incurred with a transfer of funds from SPS to the OU?

4. Have you submitted, or do you plan to submit this proposal to another funding source?* All proposals must disclose if an identical or similar proposal is currently under evaluation for funding elsewhere. Please state any entity(ies), including both IEEE and external funding sources. (Character Limit: 500)

Section VII. Additional Information

1. Disclose any potential conflicts of interest regarding this proposal. [Please note: project teams must abide by the IEEE Principles of Business Conduct. Project leads and any other members of project teams with decision-making authority must complete the Principles of Business Conduct/Conflict of Interest disclosure prior to receiving funding.]

2. SPS & HAC encourage the submission of videos and/or photos that introduce the project team, demonstrate the need identified, or explain the technological solution to be implemented.

3. Any supplementary materials that further demonstrate worthiness of the project, as well as evidence of any co-funding commitments.

How to Submit

● Please submit via the IEEE HAC/SIGHT Online Funding Opportunities Portal
● Please download this template files which will be required to be uploaded into your online application
   ○ **Project Assessment Matrix**
   ○ **IEEE SPS and IEEE HAC Projects Budget Template**

Evaluation Criteria

Applications will be reviewed based on the following criteria:
● Relevance to Signal Processing technologies
● Benefit to the affected local community
● Project scope well defined
● Strength of team and capacity to attain goal

- Involvement of relevant stakeholder network
- Relevance to IEEE's mission of advancing technology for the benefit of humanity
- Overall potential for success

Acceptable Time Frame to Utilize Funds & Reporting Schedule

- Funds must be expended within a maximum of 6 months from the approved project start date.
- Brief progress reports must be submitted at regular intervals after the project's approved start date.
- A final report must be submitted with evaluation metrics within 60 days of the conclusion of the project grant period.
- Updates on the project are to be provided upon request throughout its duration.
- Reports on longer-term outcomes and impact of the project may be requested for up to 3 years after the conclusion of the project's grant period.

Final Comments: Please note that this funding program is highly competitive. Not all worthy projects may be funded due to budget limitations or may be offered lower funding than requested.