# E4C FELLOWSHIP 2019: OVERVIEW



### About Engineering for Change

Engineering for Change (E4C) is a non-profit organization advancing Technology for Development (Tech4Dev) and supporting a global community of more than +1 million individuals. E4C delivers original news, professional development and innovation resources through programs and a digital platform enabling knowledge exchange, community connection and due diligence.  E4C provides training opportunities for engineering students engaged in global development through Internships and Fellowships. Sponsored by mission aligned organizations, E4C's Research Fellows deepen their understanding of development engineering through research, analysis and engagement with the E4C community.

E4C is built by a coalition of partners including the American Society of Mechanical Engineers (ASME), the Institute for Electrical and Electronics Engineers (IEEE), Engineers Without Borders, USA (EWB-USA) and more. E4C represents a dynamic and growing community of engineers, technologists, designers, social entrepreneurs, NGOs and community advocates, working to improve the quality of life in communities around the world by facilitating the development of affordable, locally appropriate and sustainable solutions to the most pressing social challenges.
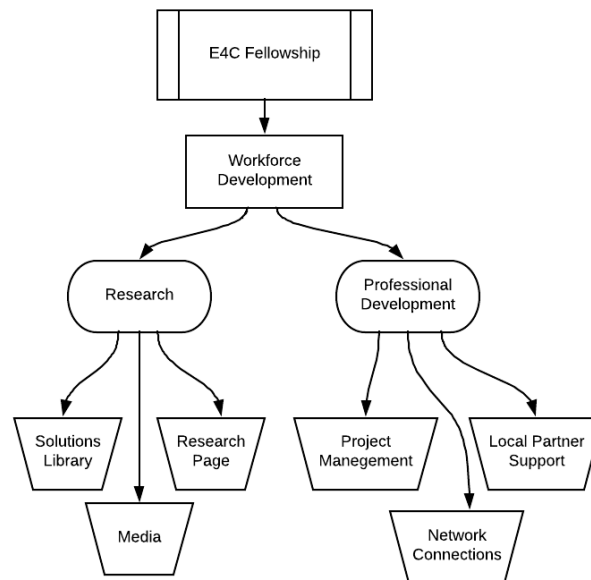
## The Fellowship

### Background:

The E4C Research Fellowship is E4C's workforce development program in social innovation serving to build engineering capacity and prepare local talent to solve local and global challenges and create knowledge as a public good. The Fellowship is designed for engineering students and/or early career engineers specialized in global development.

E4C will award up to thirteen (13) Research Fellowships in 2019. E4C is recruiting Fellows aligned to E4C's target sectors (Energy, Health, Water, Agriculture, Habitat, Sanitation, Transport and ICT) and geographic regions of focus. The Fellows will be selected based on their academic performance, professional and Engineering for Global Development (EGD) experience, sector of specialization and references. It is E4C's aim that the Research Fellowship will open opportunities and prepare future generations of technical professionals to design and deliver solutions that achieve the Sustainable Development Goals (SDGs).

### Overview:

- This Fellowship is a part time commitment. It is anticipated the Fellow will work on research related to the Fellowship, and will have remaining time to conduct independent research activities or dedicate to their graduate research agenda.
- Fellows will support research and content development in the form of technology research reports, field insights/analysis, user experience reports and articles presented on the E4C online platform including the E4C Solutions Library, Research page, News. Specifically:
    - o Solutions Library platform and program: E4C'sliving, codified database of essential technologies and supporting program delivering due diligence related to technology-based solutions. Research activities include desk research, field research, interviews, and data synthesisin one of 8 sectors covered by E4C (Energy, Health, Water, Agriculture, Habitat, Sanitation, Transport and ICT). Fellows benefit froma deeper perspective of the technology for development sector., market needs and evolution.
    - o Research Page: E4C's research work cuts across geographies and sectors to deliver an ecosystem view of technology for good. Targeted research conducted by Fellows on behalf of E4C, our associated collaborators and clients will be featured on this page in formats such as Trend Analysis, Field Insights, Research Collaborations, and more. Please refer here for examples.
    - o News media: E4C News features original reporting by Managing Editor – Robert Goodier – and draws on the expertise of a talented network of contributing editors to lend their insight to our coverage. Our editors are leaders in their fields and include founders, CEOs, professors, entrepreneurs, inventors, Fellows and others. During the Fellowship and beyond Fellows have an opportunity to write articles based on their field experience and to be shared with our community of +1 million followers.
- The Fellowship also provides Professional Development Project Management training, opportunities through local partner support, and expert network connections in the social innovation space.

## Duties and Responsibilities:

Reporting to E4C's Program Manager, the Research Fellows will work closely with the E4C team, members of the ASME Engineering for Global Development (EGD) team and expert affiliates to:

- **Research & analyze** specified technologies via desk research, literature review and interviews with product designers, manufacturers and/or implementers.
- **Develop** performance parameters and validate with E4C's expert advisors.
- **Harvest and integrate** field experience and user feedback of select solutions through the creation of user experience reports, field insights, articles, research collaboration reports, etc.
- **Inform the Solutions Library scaling strategy**, including information architecture, product inclusion parameters, user experience and data administration.
- **Support efforts** to strengthen the E4C coalition and amplify the relationships with local partners.

## Deliverables:

Anticipated outcomes/deliverables include Solutions Library's product research reports, field insights, user experience reports, articles, etc...to be determined together with the E4C Program Manager.

## Required Skills and Experience:

- Senior undergraduate, graduate and post-graduates in engineering/architecture with a focus and/or specialization in global development aligned to one of E4C's target sectors (Energy, Health, Water, Agriculture, Habitat, Transport and ICT). Note: graduating students and recent graduated are eligible to apply.

- Field experience with implementation of technology for development via academic programs, social entrepreneurship, significant volunteer (Ex. Engineers Without Borders) project work, etc.
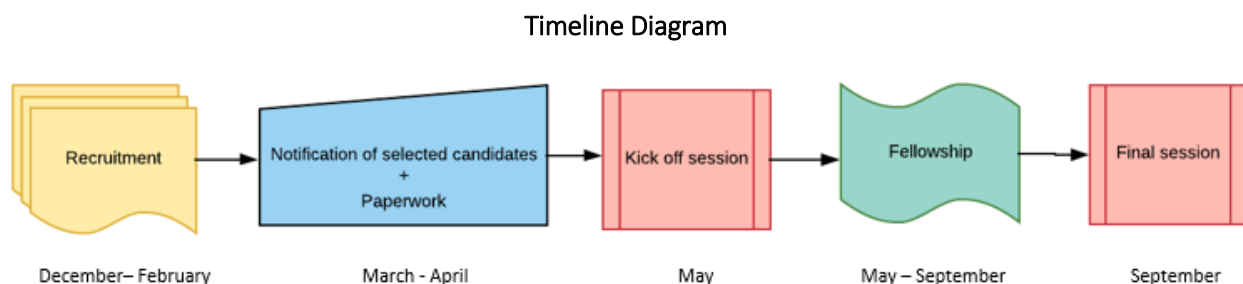
- Excellent project management skills, including the ability to work remotely with minimal supervision, be resourceful, and meet deadlines.

- Proven ability to research and rapidly acquire knowledge, execute good judgment and capacity to communicate effectively.

- Demonstrated ability to work with diverse, international teams including engineers, development practitioners, entrepreneurs, academics, non-profits, for-profits and program implementers with efficiency and diplomacy.

- Excellent English (listening, speaking, reading, and writing skills)

## Duration:
- Summer term, beginning early May 2019 and ending mid-September 2019.
- 15 – 20 hours per week is expected to be devoted to the fellowship.

## Fellowship Timeline:

- Applications will be accepted online Jan 3$^{rd}$ - Feb.25$^{th}$ , 2019
- Notification of Fellowship status will be made available to each applicant no later than April 5$^{th}$, 2019
- Required in-person orientation May 10$^{th}$ – May 17$^{th}$, 2019 (tentative dates)
- Fellowship commences May 13$^{th}$, 2018 and runs for up to Sept 20$^{th}$, 2019.

### Timeline Diagram

| Recruitment | Notification of selected candidates + Paperwork | Kick off session | Fellowship | Final session |
|---|---|---|---|---|
| December– February | March - April | May | May – September | September |

## Location:
- This Fellowship is remote. The Fellows may be based in their location of residence with the only *requirement of having good Internet connectivity throughout the 4 months of the fellowship*. Some travel to solution implementation sites and in-person meetings may be required and will be compensated.

Compensation:

- Fellows will receive a stipend in set of 3 payments per term. Payments are bound to performance and will be processed after completing defined goals/targets at the beginning of each term. Expenses associated with the research process will also be compensated.
- For International Fellows (outside the US & Canada) Internet connection support might be provided (Mobile data, Fixed Internet, etc.) based on need. E4C will cover up to $160 - $200 USD (depending on country rates) for the duration of the Fellowship. Receipts are required; overall conditions for this support will be defined during the selection process of the Fellowship.

## Application Process

Applicants are required to submit referral form through this link: https://goo.gl/forms/HioB3d8NkMwMigjM2
Upon submission further instructions will be sent out.