

Project Application Form for EWB-USA Projects

This form is for NGO's, Communities, and chapters to submit new & existing projects to EWB-USA for review.

New & Existing Projects:

For an NGO or Community (with no chapter) Complete: All sections except section 6

For an EWB-USA chapter Complete: All Sections

Note: EWB-USA does not provide cash donations or grants to communities.

Project Process:

- 1) Applications are reviewed by the Technical Advisory Committee (TAC). The TAC is a group of professional engineers who volunteer to review projects for technical content and the mission statement.
- 2) The TAC will decide whether to make the proposed project an official EWB-USA project. This process will take from 4-8 weeks.
- 3) If the project does not already have a chapter, the project will be placed on the EWB-USA website for adoption by a chapter. Note: This process can take several months, and occasionally, some projects are not adopted by chapters.
- 4) Once a chapter has a project, they will contact the community to begin the exchange of technical and cultural information and plan an assessment trip.
- 5) The chapter will travel to the community for an assessment trip. (Prior to travel, the assessment plan (#806) must be approved by the TAC at least 4 weeks in advance of departure)
- 6) The chapter then designs the project and includes the community in the final design process and choice.
- 7) The chapter may return to the community for a second assessment trip to discuss design alternatives with the community. (Prior to travel, the assessment plan (#806) must be approved by the TAC)
- 8) The chapter will travel to the community to implement the design. (Prior to travel, the design must be approved by the TAC (#807))

What we are looking for in projects:

- 1) The project scope agrees with EWB-USA's mission
- 2) Project will benefit the community and won't discriminate against members of the community
- 3) There is community involvement and participation (helping with the installation, materials, food etc)
- 4) Well defined scope of work (example: This project is to increase the community's water supply.)
- 5) The project cost is reasonable for volunteers to fundraise.
- 6) Safety concerns:
 - a. EWB-USA will not approve projects from countries that have a state department warning and one or all of the following:
 - i. US Peace Corps has pulled out of the country
 - ii. UN Peace Keepers are in the country and there is any violence in the country
 - b. Currently, EWB-USA will not approve projects in the following countries: Afghanistan, Algeria, Bosnia, Burundi, Burma (Myanmar), Central African Republic, Columbia, Cuba, Haiti, Iraq, Iran, Isreal, Gabon, Lebanon, Liberia, Libya, Nepal, Nigeria, North Korea, Pakistan, Somalia, Sri Lanka, Sudan, Syria, Uzbekistan, Zimbabwe and any other country that fits the above safety concerns.

Submission Information:

Check the EWB-USA website for submission deadlines

The Preferred method of submission is to email this form (must be less than 1MB) to: projects@ewb-usa.org

Forms may also be mailed to:

EWB-USA Project Manager
1880 Industrial Circle, Suite B-3
Longmont, CO, 80501 USA

SECTION 1: Project Information

Today's Date: October 17, 2006

1) Please check one of the following boxes:

New Project Submitted by NGO or community (no chapter has adopted the project yet)
 → New Project Submitted by a chapter of EWB (chapter has adopted the project)

2) Country: Ghana

3) Region/State (Encompasses neighboring villages): Central Region

4) Location in Country (e.g. South West Kenya, 30 miles from Tanzania) Winneba and Cape Coast

5) Community: University and neighboring community

6) Project Title: Affordable and efficient Internet access in Africa

7) Has a chapter of EWB-USA agreed to accept this project? Yes No

If Yes:

Name of Chapter(s): Central Connecticut State University – EWB Chapter (CCSU-EWB)

(<http://clubs.ccsu.edu/EWB/>)

Contact person: Dr. Farid Farahmand

E-mail or Phone: farahmandfar@ccsu.edu

Note: If a chapter has already agreed to accept this project, please CC the chapter's /faculty advisor via e-mail when submitting this application or submit a letter of approval from the advisor

8 **Project Summary:** provide a ***short*** overview summary of the scope of work of the proposed project.

- One paragraph. Approximately: 75 words

1. Assist developing communities, in Africa, to have affordable access to the Internet and other telecommunication services for education and other socio-economic development

2. Engage in a comprehensive study to research different potential technologies to access Internet at affordable price.

3. Promote effective dissemination of information in developing countries

4. Promote best practices in using internet and related technologies in education and other areas of economic development

5. Bring students in developing and developed communities to work together, using technology, to provide solutions to real life problems.

9) **Detailed Project Description:** Provide a more detailed description of your project. What is the goal of the project? Why is this project necessary? Are there any proposed solutions for the project? What alternative designs or solutions have been considered? Why were they rejected? See sample questions below:

- One-Three paragraphs: Approximately 500 words
 - *For Water Supply:*
 - *What are the possible sources of water? (e.g. type, location, distance from community); What is the elevation change?; How clean is the water?; Are there water rights issues that need to be considered?*
 - *Water Purification*
 - *What are the water quality associated diseases have been found in the community?; What quantitative and qualitative community health assessments have been done?; Has there been any testing of the water? What were the results?*
 - *Energy project*
 - *What will the electricity power?; How much power is required?; What possible methods are available? (E.g. wind, solar, biomass surveys, etc).*
 - *Construction:*
 - *What materials are available locally?; What are the typical local construction methods used in the area?*

The goal of this project is to assist developing communities to have reliable, efficient and cost effective access to the Internet and other Information and Communication Technology (ICT) services. These services are essential to the educational and socio-economic development of the community. The project will take place at the University of Education-Winneba and the University of Cape Coast. In the first phase of this project we will be focusing on the University of Education-Winneba,, which is smaller in size and the number of faculties. This project is motivated by the fact that currently the extreme high cost of bandwidth in Africa as compared to rest of the world not only limits access to the technologies necessary for educational and other socio-economic development but takes away the basic capital needed for development in general. For example published reports indicate that for less bandwidth, African institutions pay about \$8.00 for what an American institution pays only \$0.25. This project seeks to engage in a comprehensive study to research different potential technologies to access the Internet at affordable price, and explore affordable high speed and broadband for developing and low income rural communities.

Current efforts seem to be directed toward providing any scattered access, without a comprehensive assessment and implementation program that leads to measurable changes. This project seeks to change that by working with the local community to put together a comprehensive plan based on local conditions and effective best practices. The project will seek and use the most cost effective methods to improve current installation and needed expansion, network management, educational instruction and management, as well as other socio-economic applications and services to the larger community. The project will also train local personnel in the various aspects of the project and run university wide ICT training programs for students and staff. The University of Education and the University of Cape Coast are responsible for training teachers for Ghana's primary and secondary institutions. A good number of educators are assigned by the government to rural areas as part of their "National Service" and regular assignments. In poor rural communities in Ghana, teachers often serve as mentors and community resource people and thus these ICT trained teachers will be the seeds and resources in rural communities where they can spread their knowledge of ICT as applied to improving education and the local economy.

In the initial phase the team from CCSU will visit the two sites in Ghana to obtain a detailed assessment of the situation and work with the local team to come with specific overall goals of the community and put together a workable strategic plan. The team will initiate a program at CCSU on viable cost effective technological solutions for Internet access to rural areas. In the implementation stages, the team will work together to locate local and foreign sources of funds to implement the plan. An essential part of the project will be training. The CCSU team will provide leadership in terms of technological know-how, provide the necessary training of the local technicians to help implement and manage the project. The CCSU part will include annual visits by CCSU-EWB to work with local technicians on various parts of the project and offer further training as needed.

10) How many people will be affected by this project in a certain geographic region?

- a) Directly Affected: 6,000
 b) Indirectly Affected: 40,000+
 c) Geographic Area (5km radius, town, region etc): 5 mile radius

11) Background: What is the cause and history of the problem? If any efforts were made, please describe the outcome. *(This is to be posted on the EWB-USA website)*

- One to Three Paragraphs: Approximately 200 Words

The so called “digital divide” has been known to be a reflection of existing economic disparities between nations. As such developing nations are far behind in the implementation of ICT methodology to enhance educational and other socio-economic development, further contributing to the widening economic gap between rich and poor countries. Governments in developing countries thus tried to close the gap by encouraging foreign companies with the expertise and capital to help deploy and develop ICT in their nations. The goal of foreign investors is to make profits, and with the comparatively small markets, are charging exorbitant prices to make up for the lack of market size. The problem is further compounded by lack of local know-how to select and use cost effective technology, as well as manage the available resources to reduce cost. Efforts to form cooperatives have done little to provide the critical mass to negotiate reasonable prices. Also the solution offered to close the “digital divide” so far focused on simply access, without the necessary emphasis on the application of ICT to bring about specific educational and socio-economic development goals necessary for sustained economic growth that will in turn maintain further access, development and application of new technological innovations. The solution thus lie in collaborative efforts between non-profits, like EWB and foreign universities on one hand and local communities and universities on the other hand, working together to equip local technicians to manage their systems to reduce cost, and to provide cost effective training programs to the local people to assist in the development and application of emerging technologies.

12) Check the specific services or needs addressed for this project. Check all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Water Supply | <input type="checkbox"/> Agriculture |
| <input type="checkbox"/> Water Treatment | <input type="checkbox"/> Alternative Fuels |
| <input type="checkbox"/> Sanitation | <input checked="" type="checkbox"/> Information Systems |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Socio-Cultural |
| <input type="checkbox"/> Construction | <input type="checkbox"/> Environmental |
| <input type="checkbox"/> Micro-Enterprise | <input type="checkbox"/> Ecosystem |
| <input type="checkbox"/> Health and Safety | <input checked="" type="checkbox"/> Education |

Other: Describe: _____

SECTION 2: Project Impacts

1) What potential impacts, both negative and positive, are anticipated or could possibly occur as a consequence of this project? Please consider health, economic, environmental, social, cultural, and ecosystem impacts. For any possible negative aspects, how can these negative impacts be diminished? Could any segment of society be marginalized excluded or lose their current societal function because of this project? Please explain

POSITIVE:

- One-Two paragraphs: Approximately 100 words

Through this project, local personnel and students will be able to maintain and manage their ICT (Internet and Communication Technology) resources. Education will be improved as access to educational material on the Internet is provided. Furthermore, ICT trained students and teachers will become local ICT resources in rural communities where they work and spread the use of ICT for socio-economic developments. Research on this project will provide a blue print for inexpensive access to technology. Moreover, this project can assist to improve economic environment of the community through improving ICT infrastructure. American students and faculty working together with their counterparts in developing countries will gain valuable social skills as well experience in practical application of their knowledge.

NEGATIVE:

- One-Two paragraphs: Approximately 100 words

As in any other community, easy and unfettered access to information on the Internet may lead to unwholesome information available on the Internet.

2) In what ways do you envision EWB's involvement in this project? What specific skills can EWB-USA offer that are not available locally? How will this project lead to the long term sustainability of the community?

- One-Two paragraphs: Approximately 100 words

EWB will provide the technical know-how to assist in the design, installation and or enhancement of existing network, training of local technical personnel, and be resource persons for local technicians. ICT in Ghana is still in its infancy, and as a result experienced technicians are very hard to come by, thus slowing down ICT intake. The experience of CCSU-EWB in ICT applications will be invaluable as they work with locals in building a strong technology knowledge base.

3) Who is expected to own this proposed project? Will a committee need to be established? Who will manage and maintain the project? Who will cover the cost of maintenance?

- One paragraph: Approximately 150 words

The two local universities will own the project and will expand the project further into the larger community. A working group will be maintained to continually assess the project and plan expansions and innovations. The CCSU-EWB group will continue to collaborate with regards to emerging new practices and also share research results, as well as plan and implement annual technology student exchange. It is envisaged that such collaboration will continue way into the future since there will always be the need for continued shared research. CCSU-EWB will be involving in advancing and implementing alternative technologies. Through this project, we can promote student exchange program, which is strongly supported by Central Connecticut University.

4) What education will be needed for this project to be successful? Who will educate and who will need to be educated? Will verbal or written translation be needed for this education? Who will do the translating?

- One-Two paragraphs: Approximately 75 words

The medium of instruction in Ghana is English and so no need for translation. Faculty, staff and students from the US, with assistance from selected local faculty and staff, will serve as the initial instructors, with stepped down reliance on the foreign instructors as a core group of local instructors are trained. The initial effort will be directed at the local technical staff to expand their knowledge so they can effectively manage and expand their network. There will also be workshops open to students and faculty.

5) Will the proposed project be freely accessible to all persons in the local area, or will it be restricted for use by certain groups? Will a fee structure be involved? Who will decide on the amount of the fees and who will collect the fees?

- One-Two paragraphs: Approximately 100 words

The initial project will be focused on technical staff, students and faculty of the two universities, with expansion of access to the larger community as the project progresses. As part of the project will be a commitment to expand into the surrounding community.

SECTION 3: Beneficiary Group(s) Information

1) Name of the Beneficiary Group: _University of Education-Winneba and the University of Cape Coast_____

2) Describe the beneficiary group(s) in terms of ethnicity, tribal and religious affiliations, spatial organization, primary occupations and current income of all the sub-groups (if more than one). Are social relationships harmonious in the area where the beneficiary groups reside?

- One paragraphs: Approximately 75 words

The beneficial group comprise of all ethnic groups, and people from all socio-economic backgrounds. Ghana is very stable politically.

3) How are decisions made within the beneficiary group(s) – i.e., village elders, tribal councils, democratically-elected village representatives, etc? How do women participate in decision-making?

- One-Two paragraphs: Approximately 75 words

The Technology committee will comprise of faculty, staff, student representatives as well as community leaders, which will include both men and women.

4) Describe the relationship between the local project facilitator/Non-Governmental Organization (NGO) and the beneficiary group(s).

- One- Two paragraphs: Approximately 50 words

The neighboring local communities and the University officials share the same goal in advancing Internet access to the community. Both groups consider ICT project as an important and essential step toward socio-economic development and improving education system. We expect a strong community involvement toward this project.

5) Are people from the USA and aid from the USA welcome in the proposed project area? X Yes _ No

6) Have people from the USA worked in the area before? If so who and in what capacity?

- One- Two paragraphs: Approximately 50 words

Ghana has had very good relations with the United States will large number of tourists in the country and in the areas where the project will be located and business men and women especially in the hospitality fields such as hotels car rental etc. Furthermore, CCSU has been involved in African projects for many years. For example, in 2002, through cultural exchange program 100 computers were sent to Ghana.

Section 4: Roles of Partners & Funding

*EWB-USA's goal is to **partner** with developing communities to improve their quality of life by providing technical assistance for the design and development of projects. We expect community contribution to EWB-USA projects because it has been found that this leads to greater project success. EWB-USA is **not** a funding agency.*

1) What support both financial and/or non-monetary will be offered by the local community (housing, materials, continued education, etc...)? Will local labor and workmanship be offered free as part of the contribution from the beneficiary group(s)? Has a specific agreement been reached as to what EWB-USA and the community will each provide?

- One-Two paragraphs: Approximately 100 words

The local community will provide the funds for boarding and lodging of faculty, staff and students from the US when they are in Ghana. They will also be responsible for operating funds for maintenance of networks that is set-up. The local community will collaborate with the US group in seeking grants for parts of the project that may be outside the funding capability of the local community. The local universities will provide technical labor such as electronic and electrical technicians to assist in the work. Currently the project is in its infancy and such specific agreements have not been signed, but in Ghana, such assistance is usually the norm.

2) What support and funding will be offered by other local agencies and organizations, including governmental and non-governmental organization (NGO) (if any) facilitating the project? (*Note: In some cases, EWB-USA can only provide limited financial assistance for project construction*)

- One-Two paragraphs: Approximately 75 words

In order to create an atmosphere of community ownership of the project local businesses will be brought in to provide monetary support; local ICT companies, if any, will especially be courted to be partners in the project.

3) Part of EWB-USA's mission is to provide, if possible, opportunities for students to interact with local University students. Are any local universities interested in collaborating in this project?

- One paragraph: Approximately 50 words

CCSU has summer programs for students in Ghana where our students spend the summer in Ghana. It is the goal of this project to expand that exchange program to include technology students. CCSU has an exchange agreement with the University of Cape Coast and in the final stages of signing an agreement with UE-Winneba.

4) Project Budget: If an estimated project budget has been developed, please include the figures below (*Note: Costs may be listed in greater detail if desired*)

- Estimated Labor Costs: \$ _____ Below
- Estimated Materials Cost: \$ _____
- Estimated Equipment Cost: \$ _____
- Estimated Total Project Cost: \$ _____

Phase	Activities	Cost
Initial Study	Students and faculty members will visit Ghana to better understand the needs and limitations.	\$4000
Research	Literature review and conducting a technology research and searching for the suitable solution and companies which are willing to offer help. It may involve occasional traveling. We will also develop a number of related courses in this phase to get more students involved in the project.	\$2000
Implementation	Includes second visit, equipment, construction.	\$30,000

Section 5: Travel Logistics

1) When is the best time for a visit to the area considering weather, transportation access, holidays, as well as availability of the beneficiary group(s) and NGOs facilitating this project?

- One paragraph: Approximately 50 words

Both Winneba and Cape Coast are accessible year round. The best time to visit is Summer when the campuses are less busy and faculty and staff can devote more time to the project

2) What local accommodations are available for the EWB-USA team? What are estimated per day living costs for the visiting team? Will the team stay with the local community members?

- One paragraph: Approximately 50 words

The University of Cape Coast has a number of guest quarters for visitors on the University campus. The estimated cost for boarding per day is about \$10.00. The University usually provides free accommodation for its visitors.

3) What hazards may exist to persons from EWB-USA traveling to this project location (health issues, transportation difficulties, weather, insects, diseases, snakes, etc.)

- One-Two paragraphs: Approximately 100 words

Persons traveling to these areas are advised to take a regimen of anti malaria medicine before and during their stay

4) Where is the nearest hospital or clinic approved by the **US State Department or Peace Corps**? What kind of health care providers regularly staff this facility? How far from the project site? Provide an address and phone number(s).

- One-Two paragraphs: Approximately 100 words

At Winneba, the main government hospital is about a mile from the University campus. The University of has its own hospital with two additional government hospitals within a five to ten mile radius of the university.

- 8) How prepared is your chapter and your chapter members to implement this project? (i.e. training, future plans, teams, roles, learning needs, fundraising, etc)
- One-Two paragraphs: Approximately 100words

This is the first project initiated by CCSU-EWB. Although the student chapter is relatively new, all faculty members and students are extremely energetic and devoted to the project and its objectives. Faculty members are very involved they have had extensive experience in both cultural and technical aspects of projects involving telecommunication infrastructure. The scope of the project is well defined and all student members are eager to participate in the project and visit Ghana. Most students have solid background in networking and wireless technology and this will be an excellent opportunity for them to use their knowledge in a practical project.

- 9) How prepared is your chapter for the cultural differences between the USA and this culture? What is the local language, and does anyone on your team know the local language? Are there sufficient translators available to meet the varied needs of all aspects of the project? Are you familiar with the culture and customs? What are you doing to familiarize yourselves with the culture and customs?
- One-Two paragraphs: Approximately 100words

CCSU has had summer programs for students in Ghana where our students spend the summer in Ghana. It is the goal of this project to expand that exchange program to include technology students. CCSU has an exchange agreement with the University of Cape Coast and in the final stages of signing an agreement with UE-Winneba. All student members are very anxious to travel to Ghana and learn about the cultural differences.

- 10) Who will be your health point person (see document #406)? How do you plan to conduct your community health assessment on your assessment trip and on later trips? Do you have health professionals or students in the health professions (public health, nursing, medicine) on your travel team?
- One-Two paragraphs: Approximately 100words

CCSU has been involved in arranging various summer programs for students to visit Ghana for a number of years. The university has been very active to provide essential health information to all students willing to visit Ghana. Through the University health services, all documents for travelers to Ghana will be examined and reviewed. There will be a dedicated university official overseeing all traveling needs.

SECTION 7: Contact Information

Requesting Organization, Contact Information & Mission

Name of Requesting Organization: CCSU - EWB

Mission of the Requesting Organization: *CCSU-EWB is desiccated to promote innovative and scholarly projects, which improve our communities. Through such projects, students will gain hands-on experience, learn about theory, explore creative concepts, and develop their own unique design approach.*

Goal of the Requesting Organization: *Enhance and expand campus network infrastructure and telecommunication at University of Education – Winneba, and the University of Cape Coast, Ghana*

Website of Organization (If applicable): http://clubs.ccsu.edu/ewb/

Name of Individual Requesting Assistance: Farid Farahmand

Contact Email: farahmandfar@ccsu.edu - <http://www.ccsu.edu/technology/farahmand/>

Contact Phone: 214-403-3862

Contact Address:

*Central Connecticut State University
Department of Computer Electronics & Graphics Technology
2120910 Copernicus Hall, New Britain, CT 06050,*

Name of EWB-USA Chapter (if applicable): _____

Additional Contact Name (if applicable): _____

Contact Email: _____

Contact Phone: _____

Contact Address: _____

Name of on-site primary project facilitator (if different from requesting individual): _____

Contact Email: _____

Contact Phone: _____

Contact Address: _____

Project Summary:

- 1. Enhance and expand campus network infrastructure and telecommunication at University of Education – Winneba, and the University of Cape Coast, Ghana*
- 2. Review the current status of the network at the University and identifying its needs (e.g., hardware, software, services, etc.)*
- 2. Investigate the University's network requirements and services and making recommendations regarding improving the network's capabilities, architecture, access and services*
- 3. Develop a strategic design for the University's end-to-end network incorporating appropriate reliability, security, and facilities*