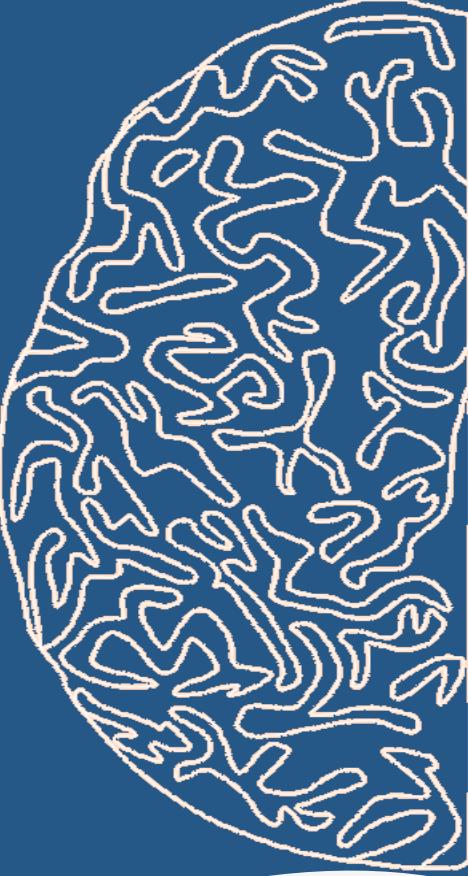
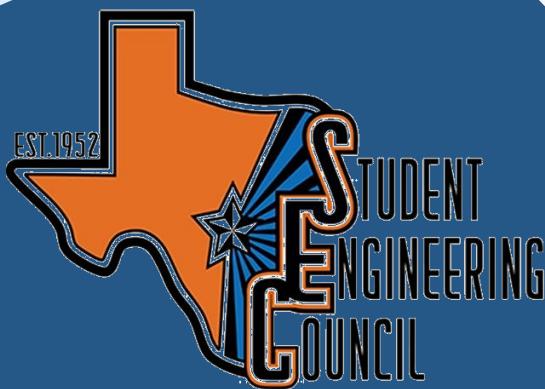


2014 BMES Case Competition



**BIOMEDICAL
ENGINEERING
SOCIETY
UNIVERSITY
OF TEXAS
STUDENT
CHAPTER**



*"We strive to promote awareness
of the growing field of BME, and to
open doors of opportunity."*

Texas BMES



Judging Criteria

- Novelty of solution
- Solution's projected impact
- Ethical responsibilities
- Economic feasibility
- Technical feasibility of solution
- Quality of presentation
- Adherence to local government regulations

Social Entrepreneurship

The process of pursuing innovative solutions to social problems. More specifically, social entrepreneurs adopt a mission to create and sustain social value. They pursue opportunities to serve this mission, while continuously adapting and learning. They draw upon appropriate thinking in both the business and nonprofit worlds and operate in all kinds of organizations: large and small; new and old; religious and secular; non-profit, for-profit, and hybrid.

Background

"We're hopeful that other children and adults in other regions of Africa, as well as other continents around the globe, will utilize the power of this new technology for similar beginnings."

The developing world faces many medical challenges which may seem trivial to those living in a more developed country. Recently, there has been a big push for prosthetic limbs and how to make them affordable for the millions of amputees around the world. Having a hand can be the difference between life and death to an individual whose livelihood revolves around physical labor. The Independent recently published an article which discusses 'Project Daniel,' which began with a single boy who lost both his arms in the Sudanese civil war. Mick Ebeling, an entrepreneur, travelled to Sudan after reading such a moving story and began to 3-D print new arms for Daniel. Simple projects like this one can have a tremendous impact on thousands of lives like Daniel's. Each country experiences similar and dissimilar medical issues.

Your Task

Prompt

Your team is to follow a social entrepreneurship model that will resolve a medical challenge or challenges faced by the developing world. Research, consider and apply a solution to an engineering problem that will both feasibly and economically improve healthcare within your target country or countries. Propose your solution while keeping ethical dilemmas in mind. Consider why and how your solution is better than the status quo, and its potential impact. Give retorts to potential arguments against your solution. Your startup should be financially sustainable. Solutions can either be specific to a country and have a great impact on removing the issue, or be more general and apply to an array of problems faced by the developing world.

Consider the following

- ◊ Is your solution a general one that can be applied to many countries or one that is specific?
- ◊ Where do you see your solution in the coming years?
- ◊ Where and how will you obtain funding?
- ◊ Can your solution last? How long?
- ◊ What impact could your solution have on the region? How will you measure that impact?

Technologies

Today's research goes beyond what we can create. Everyday, scientist and researchers strive to create something new and never before seen. These types of innovations define the cutting edge of science and guide us to a brighter tomorrow. The more innovative, the better.

Ethics

While working with different cultures and applying an engineering solution, it is important to keep in mind the natural order of the people's cultures. Our solutions should have little to no negative effect on a people's way of life while dramatically improving it.

Economics

Consider the types of countries and their available resources when implementing your solution. Not all countries contain the same resources; make those that are available and abundant work in your favor. Not only should this cut on costs but also make the region richer as their resources are being used. Remember that self sustainability is the main goal.



Guidelines

Successful presentations will include an innovative technological solution to the problem at hand, thorough research of the solution, a business plan to implement the solution (including a thorough understanding of risks/rewards, potential pitfalls, opportunities for further development, etc.), relevant financial information (business development, marketing, and other expenses), and long-term impact of the proposed solution.

Rules

Requirements:

- ◊ Anywhere from 2 to 5 members per team
- ◊ \$40 refundable deposit*

*Deposits may be either cash or check. Make checks payable to "Texas BMES". Deposits will be returned upon participation in the semifinal round on the day of the competition. Teams that cancel their entry after sign-up will not have their deposits returned.

Presentation:

- ◊ 15 minutes to present
- ◊ 10 minutes of questions from the judges

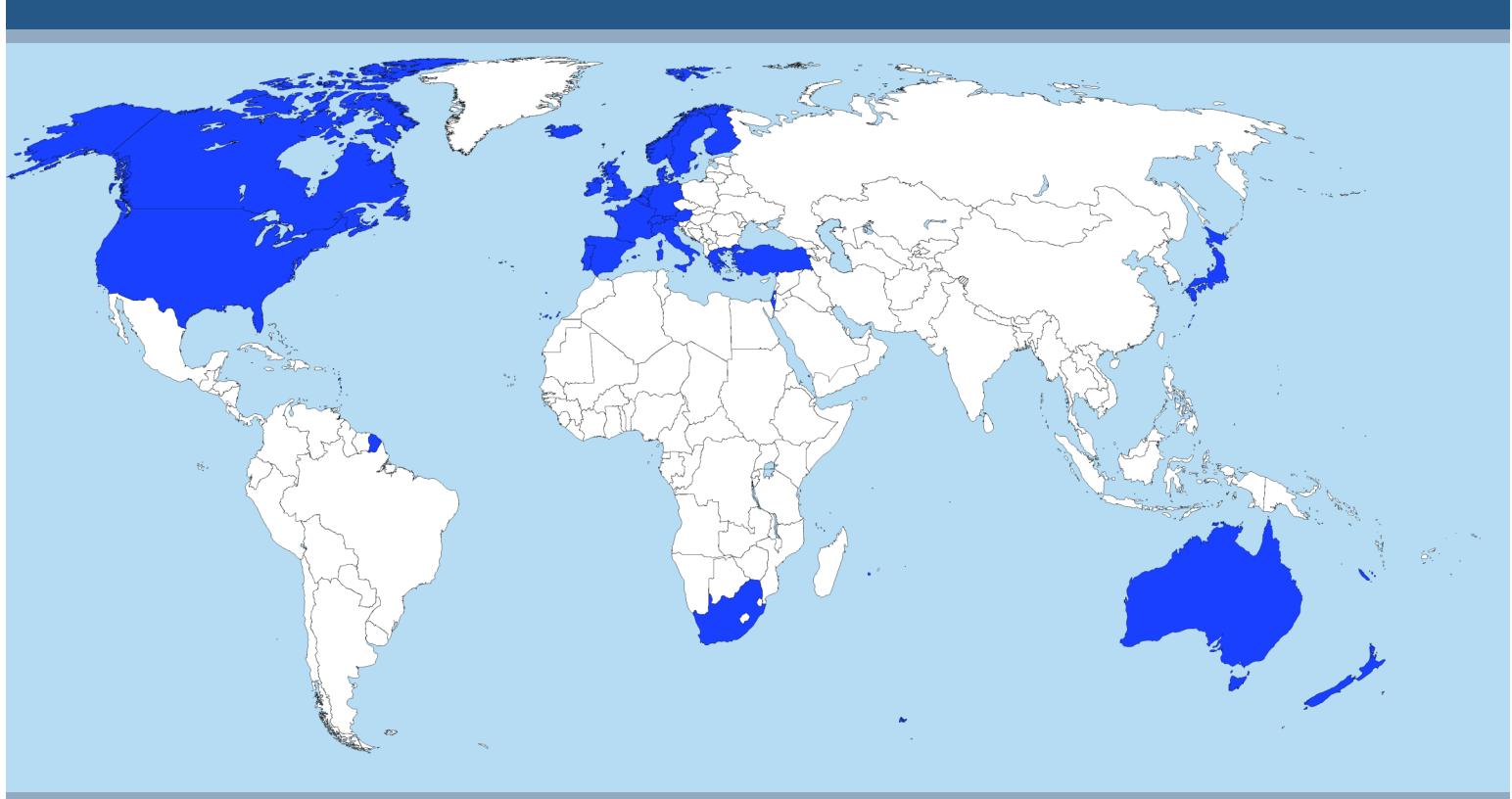
Competition Day:

- ◊ April 26th, 2014
- ◊ Teams will be notified by email of their scheduled presentation time
- ◊ Your team does not have to stay the whole time but must come back to verify if it has moved on to the second round

Prizes:

- ◊ 1st Place: \$500
- ◊ 2nd Place: \$300
- ◊ 3rd Place: \$200





SUMMARY

Many of the developing countries around the world are faced with daunting medical barriers. Please identify such an obstacle and produce a plan your start-up will follow to overcome that obstacle. You are required to address the following:

- ◊ Present your problem and accompanying background
- ◊ Present your plan to address the problem you chose
- ◊ Have a strong argument for economics, ethics, and the feasibility of your project
- ◊ Explain the outcomes of the solution and address any problems which may arise

We would like you to create a novel solution to a novel dilemma faced by the developing countries. The solution should be simple and can branch off of the technology currently available. You are not limited to any one problem, but we ask you to only present one solution.

2014 BMES Case Competition

Supported by SEC

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Texas BMES