2^{nd} Inter-IIT Technical Meet 2013-14

Social Impact

Introduction

In today's world of multi-lateral dependence, the synergistic relationship between technology and society is very evident. The role of technology in society, which originated with invention of simple tools has evolved into a cyclical co-influence that impacts our everyday lives dramatically. The competition aims at re-establishing this connection - *the social impact of technology.*

Challenge

Propose technological solutions to real world problems faced by the society. The solution can be an improvement of an existing idea or a completely new solution to the problem.

Stages of the Competition

Stage 1 : Problem Specification and Timeline Proposal

A report consisting of the following details needs to be submitted:

- The problem that the team attempts to solve
- A brief description of the solution proposed
- A timeline proposal for the project, till final submission.

Stage 2 : Midway Review

Submission at this stage includes the following:

- A report explaining the details of the work completed till then and the plans for the remaining part of the timeline.
- A short video explaining the rough prototype of the solution and the amount of work remaining.

Stage 3 : Final Submission

A presentation of the final prototype, explaining the concept, approach, and the social impact that the proposed solution aims to generate. This will be the presentation that the team will present before the panel of judges during the meet.

Stage 4 : Presentation

Each team will be given a maximum of 15 mins to present their idea and to demonstrate their final prototype before the panel of judges. The presentation submitted at stage 3 must be used. However, minor changes may be allowed.

Rules and Regulations

- The team size is limited to 3 members.
- A maximum of 2 teams are allowed to participate from each IIT. However, we encourage the IITs to conduct a preliminary screening to choose the teams that will represent the institute in the meet.
- A working prototype model is mandatory. The prototype must be demonstrable and it must demonstrate the proposed solution.
- Missing any of the deadlines may lead to disqualification of the team.

- The evaluation criteria includes justification of the social impact claimed by the team during the final presentation. This evaluation is bound to be subjective and the decision taken by the judges will be final and binding.

Important Dates

Date	Description
10^{th} Nov 2013	Deadline for Stage 1 Submission*
15^{th} Dec 2013	Deadline for Stage 2 Submission*
28^{th} Dec 2013	Deadline for Stage 3 Submission*
$2^{nd} - 5^{th}$ Jan 2014	Presentation and Prize Distribution

** - These submissions will be accepted online in the inter-IIT portal*

Suggestions

Owing to the nature of the problem statement, which is very general, we would like to suggest some ideas to effectively communicate the theme of the competition. Please note, *the following ideas are directional only and purely suggestive in nature. The participants are free and encouraged to explore beyond those mentioned below.*

Conquering the Disability

Disability may refer to physical impairment, activity limitation or participation restriction. It is technology, that has enabled independent movement of motion-impaired individuals, education for visually impaired and many more. Have we been successful in addressing all their problems? Do we have a solution to help the visually challenged self-navigate unknown environment? Is there a technological solution to help them read non-braille texts?

Say No to Plastic

The efficiency of plastic waste collection and recycling in our country is still as low as 60 percent, according to the Central Pollution Control Board. The non-recycled waste either enters land-fills or the marine ecosystem causing an ecological imbalance. Moreover, the current system uses a lot of man power, which magnifies the inefficiency. Is there an efficient method that can reduce plastic usage or improve segregation of plastic from other organic waste?

Problem of Networking

Even though we would like to call our generation socially the most connected, there are still many persistent problems that are yet to be solved. Establishing a vibrant network of organ or blood donors with hospitals and seekers is a challenge waiting to be conquered. Does technology have an solution to this?

Transportation in hilly areas

Remote and hilly parts of our country are not yet well connected with the transportation network and hence a large proportion of people rely on cycles. Is the present prototype of cycles efficient in catering to the need of cycling in hilly areas? Can we think of an alternate prototype to reduce effort in cycling up the hill?

Cheaper Wind Energy

When alternate forms of energy are the only sustainable options at hand, the trade-off occurs in the cost of installation and maintenance. Initial cost for wind turbines is greater than that of conventional fossil fuel generators per MW installed. Noise produced by the rotor blades also being a governing factor. Do we have a small, efficient, cheaper way of extracting and utilizing wind energy?

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