Principle Venture

Technology has evolved to drive society out of its binding shackles over centuries. Humans have moulded every aspect of technology to break the chains that hold back the wheels of motion for billions of people.

Principle Venture 7.0 during Quark 2017 provides you a platform to attempt and come up with a technological resolution for the impediments that society faces. It is a marriage of technology and cause. Participants who are up to date with the latest advancements in the use of technology for societal pursuits and having an unconventional approach can seek to gain an edge.

This year Quark 2017 brings to you the challenge of **Rural Women Empowerment**.

Principle Venture

Rural Women Entrepreneurship

Rural India has progressed from an illiterate populace to a people who acknowledge the importance of education, equally for both men and women. Today, a considerable fraction of rural women has received formal education, although employment opportunities for them are yet to be fully utilized. However, the next challenge in development is to ensure these women are independent financially, thus increasing their decision-making power in society. It is important for the nation's progress that women take part in leading an organization or initiating any program. Till now, we have witnessed passive work by the rural women. It is time to raise them to their full potential, of a cognizant individual willing to and capable of starting an enterprise.

Devise innovative technical solutions to promote women entrepreneurship in rural areas.

Principle Venture

AIM

Your aim is to employ technology to provide economically feasible solutions to create a platform for entrepreneurship for rural women. Keep the following points in mind while devising solutions.

- Optimum utilization of local resources
- Maximize education for women in backward regions
- Eradicate superstitions and any prevalent social stigma that prevents women from stepping out into the new field, create the temperament of entrepreneurship, and motivate the populace.
- Strategy on how to face competition from the developed sector which uses advanced technology in their enterprise.
- A method to train the to-be women entrepreneurs on: finance, management, decision-making, handling risks, etc.

Team Composition: Participants can register in team of maximum **4 members**. The abstract for the problem statement has to be submitted before 10th January.

Judging Criteria:
- Long term sustainability
- Economic feasibility
- Level of impact

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SHIFTING PARADIGMS

Principle Venture

Round 1:
The participating team will submit an abstract of the model. It is a brief idea of your proposed project.

Round 2:
Presenting the idea in front of our panel of judges with the aid of a presentation / any other models.

PLEASE NOTE:

ABSTRACT FORMAT

Name:

Team Members:

Event:

Description of the solution:

(In not more than 150 words)

The abstract has to be mailed to the following email ID in the PDF format before 10TH January, 2017.

- shubham745@gmail.com
- varadjoshi96@gmail.com

Design for Disaster

Aim

The aim of the competition is to provide preventive measures to mitigate the effects of the disaster by reducing the impact of it or coming up with techniques to ensure maximum safety when it actually strikes. The event is divided into the following categories, a participant can choose any one and present a model to reduce the impact in that case.

1. Preparing

Warning about a disaster, which can happen in the future. The term **'early warning'** is used in many fields to describe the provision of information on an emerging dangerous circumstance where that information can enable action in advance to reduce the risks involved. This also includes **preparing for disasters** beforehand where a particular situation has occurred in the past.

Design for Disaster

2. Responding

The primary aims of disaster response are rescue from immediate danger and stabilization of the physical and emotional condition of survivors. These go hand in hand with the recovery of the dead and the restoration of essential services such as water and power. How long this takes varies according to the scale, type and context of the disaster but typically takes between one and six months and is composed of a search and rescue phase in the immediate aftermath of a disaster followed by a medium-term phase devoted to stabilizing the survivors' physical and emotional condition.

This includes reviving various networks of the community, which were disrupted by the disaster. Such as reviving the markets over the area and increasing opportunities food and employment generation. Finding ways to provide essential healthcare services to the affected population.

3. Recovering

Recovery refers to those programs, which go beyond the provision of immediate relief to assist those who have suffered the full impact of a disaster to rebuild their homes, lives and services and to strengthen their capacity to cope with future disasters.

Design for Disaster

Judging Criteria:
- Technical and Economic Feasibility of the design.
- Effectiveness of the design.
- Originality, Inventiveness and technical ingenuity.
- Detailing of the design.

Team Structure:
Teams of not more than 4 members.

Who Can Participate?
- Students
- NGOs
- Corporate Organizations
- Independent Individuals

Round 1:
In this round, the participants will have to give a rough plan (abstract) about their solution. They can include on how they came up with it. The participants can choose the disasters. It can be a new one or an improvement of old one

Round 2:
The participants will have to present their actual model or drawing or their solution. A working explanation should be given along with it. In addition, it should specify how it could have worked for the previous disasters. Drastic change in the model from the previous round is not allowed.

Design for Disaster

PLEASE NOTE:

ABSTRACT FORMAT

Name:

Team Members:

Event:

Description of the solution:

(In not more than 150 words)

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My Green Idea

Ideas are abound when you have the conviction to bring about a change around you. Want to reduce your carbon footprint? Concerned about the quality of water you drink? Wish to know how things can be recycled often counterintuitively?

My Green Idea provides you a platform to challenge your intellect. Research, build and come up with ideas that can potentially save the world and become a superhero! (Not really, but yeah!).

This edition of My Green Idea focuses on these categories

- **My Green App** - Simple? Not so much. From providing users the air quality information for the current location to educating the users how green the manufacturing processes for their favorite products are ideas are plenty. Convince us why your apps will help us in reducing our carbon footprint a tad bit easier.

- **The Mild And The Extreme** - This one involves a great deal of research. Obsess over your love for mother earth. Pitch in ideas that could be simply common sense but also seem severe to us.

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SHIFTING PARADIGMS

My Green Idea

- **Green Architecture**- with the Make in India campaign kick started by our PM a year ago now. A lot of new labs and manufacturing units are expected to be set up in the country. There has been great emphasis on 'greener' infrastructure and India provides great opportunities by being the second largest market for green buildings. Devise innovative ways of designing such facilities while ensuring that they are sustainable and economically feasible.

Even though some ideas here are quite elaborate, we are looking for simple ideas, which can save a lot energy or resources.

- **Green IT** - Desktops and laptops seem quite clean sitting idly on your desk without emissions but are they really green? Computers consume power and power means fossil fuels, which translates to emissions. Computers contribute to 2% of the total emissions and are soon expected to double. From energy, efficient hardware to software is that tone down a computer's performance to save energy that is where green IT comes in. Design software (or even possibly hardware) that can help cut the excess volts and help reduce your hefty machine's carbon footprint.

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SHIFTING PARADIGMS

My Green Idea

Round 1:
The participants have to submit the abstract of the idea online. The shortlisted teams will be asked to present their idea in front of our panel of judges.

Round 2:
The participants present their idea during Quark 2017

Round 3:
Question and Answer Round

PLEASE NOTE:

ABSTRACT FORMAT

Name:

Team Members:

Event:

Description of the solution:

(In not more than 150 words)

The abstract has to be mailed to the following email ID in the PDF format before 10TH January, 2017.

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Smart Solutions, Smart Cities

"If we had recognized urbanization as an opportunity 25 years ago, we could have been at par with the developed world today. But better late than never,"

India's Prime Minister Narendra Modi launched the Smart City mission back in June amid much hype. The smart city concept in a nutshell involves "use of information and communication technologies to enhance quality and performance of urban services, to reduce costs and resource consumption, and to engage more effectively and actively with its citizens." The concept has gained wide approval across continents with the EU having devoted resources and efforts to develop strategies to ensure 'smarter' growth of European cities and urban regions.

India has ambitious plans as well, the smart city mission intends to develop 100 smart cities which incorporate smart solutions and ensure a more efficient resource usage and ICT enabled infrastructure running on cleaner energy sources.

Implementing the concept of smart cities in India remains a big challenge, the complication arises from the peculiar nature of how urban planning is carried out in the country and this means cities in India need to become smart at a more fundamental level.

Smart Solutions, Smart Cities

Roads in India for instance are dug up every once in a while to lay cables or wires and disruption of traffic and potholed roads ensue. A smart city would involve mapping of the city with utility cables and pipes and every once in a while that a new cable needs to be laid down, one simply plugs it in rather than digging the entire thing up.

This event requires one to come up with such solutions that make Indian cities smarter and provide a sustainable and decent quality of life to its citizens. Come up with comprehensive and economically feasible solutions under any one of the following categories.

1. **Smart Governance**- Example: Includes policies and digital services from the government that help and support the adoption of green and intelligent solutions through incentives, subsidies or other promotions.

2. **Smart energy**- Example: Uses digital technology through advanced meter infrastructure (AMI), distribution grid management, and high-voltage transmission systems, as well as for demand response for the intelligent and integrated transmission and distribution of power.

Smart Solutions, Smart Cities

3. **Smart technology** - Example: Connecting the home, office, mobile phone, and car on a single wireless IT platform. Smart technology includes adoption of a smart grid system, smart home solutions, a high-speed broadband connection, and rollout of 4G technology.

4. **Smart healthcare** - Example: The use of eHealth and mHealth systems and intelligent and connected medical devices. It also involves the implementation of policies that encourage health, wellness, and wellbeing for its citizens, in addition to health monitoring and diagnostics as opposed to treatment.

5. **Smart infrastructure** - Example: Involves intelligent and automated systems that manage, communicate with, and integrate into different types of intelligent infrastructure, such as energy grids, transportation networks, water and waste management systems, and telecommunications.

You are not restricted to solely these aspects and can devise solutions that you may find appropriate for a smart city.

Participants have to present their idea during Quark and extra points will be awarded for the people who will have their design ready. For example:
• Proper Abstraction of an App/Website.
• Proper Design of the Idea that it could be implemented, like in segregation, proper design of management.

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Smart Solutions, Smart Cities

Participation Criteria:
Individual or a team (not more than **4 members**)

Judging Criteria:
- Technical and economic feasibility of the solution
- Overall Impact on society
- Demonstration of the idea
- Plan of action

Round 1:
The participants have to submit the abstract of the idea online. The shortlisted teams will be asked to present their idea in front of our panel of judges.

Round 2:
The participants present their idea during Quark 2017

Round 3:
Question and Answer Round

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Smart Solutions, Smart Cities

PLEASE NOTE:

ABSTRACT FORMAT

Name:

Team Members:

Event:

Description of the solution:

(In not more than 150 words)

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IN Justice

About the Event:

This event consists of a debate round (Team Event) and a group discussion round (Individual Abilities are to be tested) to come up with solutions on the major social problems faced by our nation based on certain cases of the Indian Judiciary. A basic knowledge of the existing laws of the Constitution and prevalent social conditions in India is expected from the participants.

Team Registrations (Qualifying Round):

Participants have to register in groups of three (3 students per team). The problem statement for qualifying for the final competition at Quark 2017 will be mailed to the participants after registration. The deadline for submission of your views *via email* is **10th January, 2017**.

Email ID:

- shubham745@gmail.com
- varadjoshi96@gmail.com

The problem statement for sending the abstract round will be emailed to the participants registering for this event.

IN Justice

Preliminary Round:

Once you have qualified for the competition at Quark 2017, the actual topic and case for the preliminary round will be mailed to you. You are expected to prepare **for as well as against** views for the given topic in reference to the case(s) provided. The preliminary round will be conducted with 16 teams. All teams will be **divided into 4 groups** based on Random Draws and **2 teams** of each group would **compete with each other** (Whether your team is to express for or against views will be decided at the time of event. You are expected to prepare for both.) Based on the total score given by the judges, **one team from each group** will qualify for the Final Discussion Round.

Final Round:

Four teams will qualify for the final round, which will involve a group discussion over a given topic based on an actual case. The case/topic for this round will be given to each team on the spot, a time of 10-15 minutes will be given for preparation, and then we shall proceed to discussion. Two Group Discussions involving 6 students each, drawn randomly from the final 12 participants will be conducted. Every individual will be awarded points and the team with the Maximum points at the end will be the Winner.

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IN Justice

Detailed Description of Each Round:

Qualifying Round:

Each team is expected to write in brief about their views for as well as against the given topic in reference to the given case(s). Be precise and write in 500-600 words each (i.e. view as well as counterview) and send the same via email.

Preliminary Round:

After a small introduction of the teams and topic, two of the three participants from each team will be speakers while all the three-team members may take part in retaliation. Each speaker will speak for a **maximum of 5 minutes** and then during the retaliation round each speaker may speak for maximum 2 minutes while the non-speaker must speak for 5 minutes.

IN Justice

For Example:

Team A --- Speaker 1 and 2, Non-speaker 3 (Numbers are just for your understanding)

Team B --- Speaker 4 and 5, Non-speaker 6

The order for speaking in the debate would be:

1 then 4 then 2 then 5 then 3 then 6 and at last any of the members may speak as long as time is left.

At the end of the round one member from each team will give a concluding speech for **maximum of 2 minutes.**

Final Group Discussion Round:

After initial introduction, each contestant must speak for 3-5 minutes and present his/her points before the other contestants after which the discussion will commence.

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