



A call to all innovative students of schools and colleges

for

Gandhian Engineering Idea Competition

On the occasion of

151st Gandhi Jayanti

at

AURO University

2nd October, 2020

Organised by :

AURO Innovation and Continuing Education Centre
AURO University, earthspace, Opp. ONGC, Hazira Road, Surat 394510
www.aurouniversity.edu.in

Gandhian Engineering Idea Competition *(An annual event of Auro University, Surat)*

Introduction

Mahatma Gandhi's life and legacy is remembered by people across the world. 151 years since his birth, Gandhi's philosophy is still at the core of work of many institutions. "Be the change that you want to see in the world", said Mahatma Gandhi with the hope that we, the agents of positive change shall drive the world to new heights of progress and prosperity. The entrepreneurship of ideas is the next game changer and we at Auro University are delighted to give the young innovators and entrepreneurs a platform to pitch in your ideas. The ideas that shall contribute to India's journey of innovation; the ideas that will gently shake the world into a greater dynamism.

AURO University invites young innovators and entrepreneurs to be at the forefront of spreading Gandhi's ideas through innovations.

Gandhian Engineering Idea Competition is an initiative of AURO University, Surat to commemorate the birth anniversary of Mahatma Gandhi. The competition celebrates the spirit of student innovation in all the fields of engineering, science, technology and design through extremely affordable/frugal solution or the ones pushing the technological edge. These could deal for example, with a) Green Business – Energy, Agriculture, Recycling, Health and Safety, Renewable Resources b) Water Management c) Waste Management d) agritech or technologies helping farmers, contract labourers and peasants e) product design and design thinking f) technology : AI, ML, NLP, IOT, Robotics, Blockchain applications g) assistive devices for physically challenged h) food processing or Foodtech i) digital education without electricity, without internet connectivity, and all others areas of social and industrial applications. One can submit more than one application in hard-core manufacturing areas, including but not restricted to aerospace, transportation, construction, textile, electronics, Nano-technologies, computer science applications etc.

Gandhian Engineering is a term coined, analysed and conceptualized by Dr. R A Mashelkar, a well known scientist, 'Bhishm Pitamah' of Indian Innovation regime and a Padma Vibhushan Awardee. The Concept is not about the technicalities of engineering fields. It goes more philosophical than that. More than the products and outcomes, it stresses on the processes. Dr Mashelkar puts forth the concept in simple term as 'more from less, for more and more people.'

Viable Ideas and Startups are the building blocks of Entrepreneurship. The emerging trends of startup initiatives in Educational Institutions form the basis of entrepreneurial ventures in the market. For this, the students need to be trained and exposed to the latest happenings in the domain.

AURO University proposes an Idea competition on the occasion of 151st birthday of Mahatma Gandhi on 2nd October, 2020. It will be a recurring event starting from 2020.

What is Gandhian Engineering : More from Less for More

What Engineering would be most crucial for the 21st century? Chemical Engineering? Computer Engineering? Electronics Engineering? No. None of these. It will be 'Gandhian engineering', which is all about "getting more from less for more and more people of the world".

Gandhi tried to assimilate all the elements of the society into the struggle for their own betterment; the freedom march was successful only because normal person on the street was walking along with him for the common goal. Gandhian Engineering advocates a convex lens leadership where people who are not together normally, come together". Gandhian Engineering focuses on the grassroots level; making innovations, for the masses. When someone decides to innovate something for the masses then, it has to be affordable to people at the most bottom layers of pyramid without losing its quality. The concept is better understood by these words – Getting More (Performance) from Less (resource) for More (people), not just for more (profit). When a product is developed for the rich, the poor will not be able to buy it. However, when a good product is developed for the poor, even the rich will start using it.

Along with the innovation for the masses, it also hopes to get the same from the masses. The concept is to inculcate the habits of the conserving, preserving resources in everyone. Let everyone be more innovative, more frugal. Since resources are depleting at a very high rate, such learning and design of new adaptive methodology is very much essential.

The concept is also understood by another term "Frugal Innovations". The essential principles of any idea or startup are the following :

Affordable – Low cost to be used by masses.

Sustainable – the heart of Gandhian Engineering concept. Economic and robust business model.

Scalable /spreadable – capacity to change in size and number. A proven product and a proven business model, about to expand to new geographies and markets.

Simple – the key to scaling the startup. Easy to use and handle.

Speed – Being the first to market. Advantages of early entrants.

Smart – have a competitive edge over others. Identify the most relevant solution.

Sensible – Ideas having sense, feasibility and viability

Universal – Applicability and functionality across regions and climates.

Distinctive - Class Apart. Competitive edge. High in Innovation quotient.

Industry could do well as well as do good by following the MLM strategy through technological innovations, business process innovation, work flow innovations and so on. MLM is getting further traction

now. Getting it for billions of 'have nots' means making products and services available not just at 'low cost' but at 'ultra-low cost' – and that too at the same level of performance!

The Competition

The competition is online and open to the students of Gujarat and other states of the country.

There are two categories of students for participation in the competition :

Category A : Students in Senior/Higher Secondary (11th and 12th standards)

Category B : UG and PG students

Students can submit their Idea/Project/Innovation which address an important social, environmental or technological problem faced by masses or disadvantaged people/sectors/spaces or micro and small enterprises or have the potential to impact a pressing national need.

They can submit any idea/innovative concept dealing with Product, Business Process or Service or DESIGN or Workflow Innovation or Delivery system innovation or supply chain innovation or public policy innovation.

The applications may be made by the past or present students of school/technical institutions/universities.

About AURO University

AURO University, located in Surat, was established through the Gujarat Private Universities Act 2009. AURO University is a multidisciplinary academic campus and is equipped with state of the art infrastructure. As the university is still emerging, emphasis is more on growth in terms of student's enrolments and infrastructure. With its very talented faculty pool, teaching standard and dynamic and innovative academic programmes, AURO is committed to set a benchmark in integral and transformational learning.

AURO University has launched an innovation and continuing education centre. The centre is working with all students who wish to venture into entrepreneurship or a startup company. AURO Innovation and Continuing Education Centre (AICEC) nurtures students' creativity and innovations. It also aligns with the Govt. of India's plan to support and sustain an innovation eco-system through Startup India. SSIP (Student Startup and Innovation Policy) is one such effort of Gujarat Government and Auro University is a partner institution. AICEC intends to cater to a wide variety of students, thinkers, mentors and entrepreneurs.

Objectives :

- To tinkle the imagination and creativity in students
- To leverage the benefits and advantages of Startup Ecosystem
- To spread the concept of Gandhian Engineering : MLM
- To promote interdisciplinary, cross disciplinary and trans disciplinary integration of innovative ideas

- To help shape the city of the future by igniting, uniting, and energizing the creative students through the power of ideas.

Registration :

a) Idea Competition

All students, who have any idea or innovative project, are requested to register using the google form. The registration form includes what theme/area they wish to submit their application and how will they present the idea or abstract. You can submit entries individually or in a team.

Participants will be selected for the final round on the basis of the following criteria :

1. ASSURED (Affordability, Sustainability, Scalability, Universal, Rapid, Excellent, Distinctive)Framework , Simple, Sensible, Smart
2. Creative Thinking
3. Concern for Self, Society and Environment
4. Market Value/Acceptance

b) Design Competition (can be improvement in the existing product or process)

Participants will be selected for the final round on the basis of the following criteria :

1. Ergonomics in Design
2. Stability, Standard and Durability
3. Aesthetics
4. Affordability

Registration Link : <https://forms.gle/mwYFse9VHuV1mV5r5>

Important Dates

- Last date of submitting entry : September 25, 2020
- Pitching to the jury : October 1, 2020
- Announcement of Winners : October 2, 2020

Note : Mentors will be assigned to the shortlisted entries

Mentoring

The role of a mentor is to guide the founder and help them figure out the right way forward. Mentors already know the ins and outs of their domain, and learning from them can help founders navigate uncertain waters.

The life of a startup founder is not easy, they are constantly juggling to keep them afloat. There are many decision points that could be a turning point in one's journey and the future of one's venture hangs in balance. It's in times such as these that experienced mentors can be invaluable. Mentors can help get the right talent on board, find the right investors, determine your company's worth, or help lay the foundations of the company culture.

Each individual participant or team will be assigned a mentor on demand. You can mention your choice of assigning mentor in the registration form. If your idea is shortlisted, you will be given a mentor.

Videos and sites for Reference

When someone is a budding startup founder or inexperienced entrepreneur, taking some time to read what's going on in the industry is essential. The internet is filled with resources and publications dedicated to assisting one in his/her ventures, but they have to be able to track down the good stuff.

Here are some recommendations :

1. <https://www.indiegogo.com/projects/square-off-neo-swap-smart-automated-board-games#/>

This startups product Squareoff completed \$1 million Dollars in sales on indiegogo platform. Mentored by the Vice-Chancellor, AURO University and the then VC, Mumbai University.

2. Entrepreneur.com/inspiration

Feeling a little down in the dumps? Need a little motivation? *Entrepreneur.com's* "Inspiration Station" is dedicated to providing entrepreneurs insights to the industry leaders and pioneers.

3. www.yourstory.com

YourStory's Top 50 Disruptive Startups: Indian companies that dominated the news in 20194.
www.startupindia.gov.in

4. www.startupindia.gov.in

The startup portal of Govt. of India.

5. www.ssipgujarat.in

The startup portal of Govt. of Gujarat.

Awards and Recognition

The top two ideas from each category and each competition will win exciting cash prizes and suitable recognition.

All participants will receive an event certificate and opportunity to become a part of the AURO Innovation and Incubation Cell.

S.No.	Description	School Students (11 th and 12 th)		UG and PG students	
		Idea Competition	Design Competition	Idea Competition	Design Competition
1.	1 st Prize	7000	5000	7000	5000
2.	2 nd Prize	3000	2000	3000	2000
3.	Consolation Prize	1500	1500	1500	1500

Advantages to the participants :

- Chance of funding and mentorship from top experts and Angel Investors
- Recognition of Idea and feedback from AURO University and other eminent jury members.
- Opportunity to reach to a great mentor pool.
- Awards and benefits of turning the idea to a business plan.
- A one –on-one session with experts.
- Ability to practice and focus on presenting and pitching the idea.
- A fair understanding of Surat Startup Ecosystem
- Boosting self-confidence

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