IIT INDORE'S FLUXUS 2020 AN ARCHAIC INSURGENCE

MANTHAN

AIM

Participants are expected to come up with creative technological solutions to the following day-to-day problems encountered by the society and provide a way to overcome these problems by the use of both innovation and technology.

PROBLEM STATEMENT

(1)Flood Disaster Management

Though floods frequently occur in India, little changes in terms of disaster management. Almost 15% of India is prone to flooding and annually, 2000 lives are lost and 80 lakh hectares of crop land are damaged incurring a cost of about 1800 crore. Just a few months ago, 175 people were killed and more than a crore were affected due to floods in Bihar and Assam. Floods affect even the modern and advanced cities, like the financial capital of India – Mumbai.

While record breaking rain might be to blame for severe floods, poor planning and management are culprits too. The government has to spend more on compensation after floods rather than spending more on prevention. This is due to inefficient prediction system, poor pre flood management system and outdated technologies involved in this. Government agencies need to adopt some efficient forecasting techniques to foresee extreme weather patterns. Rampant mining and quarrying, especially in hilly regions, bring about landslides.

Participants are invited to come up with innovative technological solutions for the following:

- Flood forecasting, flood monitoring and early warning systems.
- Development and maintenance of reservoirs and artificial water catchment systems.
- Development of run-off and sewer systems.
- Improve seepage in the ground and soils by chemical or other methods.

(2.)Low Cost Green Housing

With an ever-increasing population of India, the need for affordable housing is rising as well. It is expected that 40% of the Indian population will be urban by 2030, against the current figure of 30%. With this increasing rate the demand for infrastructure including housing will increase as well. The government of India has taken initiatives like PMAY (Pradhan Mantri Awas Yojana) to provide affordable housing for lower-income groups which satisfy the GRIHA ratings. The participants are invited to come up with innovative and sustainable solutions to the problems of affordable housing using environment-friendly and cost-effective materials like AAC bricks, low VOC paints while keeping in mind issues like waste management, water-saving and optimal usage of locally available materials for construction.

Participants are invited to come up with an innovative and applicable technological solution for the following:

- Cost Reduction, by using ad hoc methods.
- Carbon reduction and Waste management.
- Reduction in water and Energy consumption of a house.
- Enhancing hygiene and Indoor environment of a house.

- Note: Themes provided are only for reference, you are free to think and come up with innovative solutions. Do not restrict yourself to these references, submissions beyond these are also accepted, keeping in mind that they are relevant to the main problem statement.

REPORT FORMAT

1) **Title**
2) **Abstract**

a) Objective

b) Beneficiaries (For whom)

c) Usage

3) **Proposed Solution**

a) Explain your idea/solution.

4)Literature Review

a)Present methods of tackling the problem (if any) and Benefits of your approach: How your product has an edge over other existing solutions

5)Methodology

i) Describe the concepts, theories and approach involved in the proposed solution

ii) Detailed technical specifications and pictorial representations (block diagrams/ flow charts /graphs/pie charts etc.).

iii) Description about the feasibility of the proposed solution.

iv) Experimentation/Verification of the prototype (if any).

v) A link to the video of the working model/ prototype (if any).

6.)Cost Estimation

vi) Estimation of cost required in the implementation of idea/solution.

7.)Results

a) Result of the analysis or survey.

b) Include problems encountered (if any), credibility of results, accuracy, reliability

c) Advantages and disadvantages (if any) of your solution

8.)Application

a)To what extent your idea able to solve the problem.

b)How does it benefit the affected people?

9.)The prospects and application of your project in the future.

ELIGIBILITY

1. Undergraduate Studentsof authorized institutions from any part of India. (Valid College ID is mandatory)
2. A team ofmaximum of 4 members.
3. If the participating team feels that their ideas require some additional permission or aid, they can forward their request, with suitable reasons, to fluxus@iiti.ac.in .

Teams must follow the following details for the submission:

I. The abstract must be submitted in PDF format only
II. Font: Times New Roman
III. Size: 12 pt size
IV. Spacing between two lines: 6 pts
V. Spacing between two paragraphs: 10 pts
VI. Bottom margin: 1 inch

EVALUATION

Report will be judged by a panel of experts. Following are the guidelines for judging:

1. **Creativity:** How creative and interesting is the idea? How different is it from the solutions available and what advantages the idea has over others? The innovation must be inventive in its area of application and must benefit the society or affected group.
2. **Originality:** The innovation should not, by any means, include copied or stolen work. Such applications will be disqualified immediately.
3. **Cost of making the idea work:**
4. **Durability:** How durable and lasting your idea can be.
5. **Scalability:** Is the solution scalable to a higher level, how easy is it to scale up and what are the factors affecting it?
6. **Potential to impact the people in general:** How does it benefit the society? Is the problem solving the required need of people, intensity of the solution and number of people catered from the solution directly and indirectly?
7. **Extra feature that you inculcated in your project**

In case of any discrepancies, the decision of the Organizers or Judges will be final and binding on all.

SHORTLISTING

Top teams will be selected and would get the chance to present their model/idea at the Final Round in Fluxus, IIT Indore which is from 7 February to 9February 2020. Participants will get a slot for presenting their model/idea to the Judges based on which they will be evaluated.

DEADLINES

Round 1 - Participants have to register and submit their Report in the prescribed format till 31 January, 2019.

Round 2 – Shortlisting of top teams and 1-week time to further improvise the idea.

Round 3 – The final presentation of your project at Fluxus 2k20 (exact details will be informed). After that winners will be announced.

DISCLAIMER

The promoter reserves the right to cancel or amend the rules of the competition. Any changes to the rules of the competition will be notified to participants as soon as possible on website. By entering this competition, all team members are indicating their agreement to be bound by these rules.

CONTACT US

EVENT COORDINATORS

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