Unravelling Transportation

Problem: Transportation & Traffic Management

Transportation and distribution of all resources and products are an integral part of any economy, and any improvement in this sector directly manifests as an improvement in life. According to a WHO report, more than 1.35 lakh lives are lost a year due to road accidents. Innovative ideas of road traffic patterns and transportation need to be encouraged to lessen the accidents.

Participants are invited to come up with innovative technological solutions for better management of transport and traffic systems. Some of the themes which you can work upon are:

- Optimizing traffic light management
- Fuel efficient, affordable and faster means of transport
- Public transport inadequacy
- Connectivity to rural areas
- Worn out and obsolete Assets
- Railroads and Subway Systems
- Strategic Road Network
- Road Safety

Note: The above themes (circular bulleted points) are just guidelines to help you. You are free to think like an unconventional thinker and come up with great innovations. Do not limit yourselves to these themes.

REPORT FORMAT

i. **Title**
ii. **Abstract**
1. Objectives
2. Beneficiaries (For whom)
3. Value of results (Usage)
iii. **Background**
iv. **Statement of Problem**
1. Succinct definition of problem addressed (follows from material in the background section)
v. **Research**
1. Present methods of tackling the problem (if any)
2. Proposed Solution
3. Alternate solutions/approaches
4. Novelty of Approach: How is/will your solution be better than the existing products that address the same problem?

vi.   Technical Report
1.   Description of concepts, theories and/or approach involved in the proposed solution
2.   Technical aspect of the proposed solution
3.   Detailed technical specifications and pictorial representations (block diagrams/ flow chart)
4.   Description of the flow of operations demonstrating key features and functionality
5.   Performance estimate of the solution
6.   Experimentation/Verification done to establish the workability of the above
7.   A link to the video of the working model/ prototype

vii.   Results
1.   Actual findings, significant output of tests and analysis (Must be readable)
2.   Include problems encountered, credibility of results, accuracy estimates
3.   Pros and cons of your solution
4.   Utility of results

viii.   A link of the Google Drive Folder which contains Pictures and Video of the working model/ prototype**.**

ix.   Application
1.   Your idea as a solution to the problem
2.   Additional applications
3.   Benefits to the users

x.   Future prospects, research in it and further development (in brief)

xi.   Any other details: (Patent/Business plan etc.)

ELIGIBILITY

1. Individuals or teams from the following categories are allowed:
a.   Students/research scholars of authorized institutions (students have to show their Valid College/School ID)
b.   Upto 3 years old college pass-outs.

2. A team is allowed to have a maximum 4 members.

3. If the participating team feels that their idea requires more participants in their team, they can forward their request, with suitable reasons, to transportation@techfest.org with the subject **"Ideate: Team number increase request"**.

REGISTRATION AND SUBMISSION

The Participants have to register on the official Techfest Website and fill all the necessary details.
www.techfest.org -> Ideate -> Unravelling Transportation -> Explore More -> Register -> Fill all your details -> Now you must create/Join a team

PROJECT REPORT SUBMISSION

The project report should be mailed to **transportation@techfest.org** with the subject 'Ideate: ''Unravelling Transportation'' Project Report: <Team Id>'
(for eg. Ideate: ''Unravelling Transportation'' Project Report: **UT-191234**).

The report must be submitted in PDF format only.

EVALUATION

Unravelling Transportation abstracts will be judged by a panel of experts. Following are the broad guidelines for judging:

1. Creativity and Novelty: How novel is the idea? How different is it from the current solutions available? The innovation must be ingenious and novel in its area of application and should have a high potential for leaving an impact on the society.

2. Originality: The innovation should not, by any means, include copied or stolen work. Such applications will be disqualified immediately.

3. Performance

4. Cost/Market Value and Acceptance

5. Durability and Usability: Durability of the prototype/method proposed.

6. Implementation ability: Is the solution implementable as described? Is it repeatable? Is the solution feasible for diverse and changing conditions?

7. Scalability: Is the solution scalable to a higher level, how easy is it to scale up and what are the factors affecting it?

8. Potential of Impact: How does it benefit the society? The scale of problem that it solves, intensity of the solution and number of people catered from the solution directly and indirectly.

9. Design: Has the design been taken into consideration? How optimized is the product?

10. Ergonomics (if the team decides to make a well-designed product)
In case of any discrepancies, the decision of the Organizers or Judges will be final and binding on all.

SHORTLISTING

Top 15 teams will be selected and would get the chance to present their model/idea in the Final Round at Techfest, IIT Bombay which is from 3rd -5th January 2020. Participants will get a slot for presenting their model/idea to the Judges based on which they will be evaluated.
Top teams would get an opportunity to display their projects in Ideate exhibition during Techfest, IIT Bombay. These teams will be selected by a panel of judges.

GENERAL RULES

1. Every team has to register online on our website for the competition. A Team ID will be allocated to the team on registration which shall be used for future references.

2. A team can register at any point of time before 9th Decemember 2019 and submit the final abstract and video (as mentioned in the structure).

3. The decision of the organizers or judges shall be treated as final and binding on all. Techfest has all the rights to verify the identity and accuracy of the details provided by the participants.

4. No responsibility will be held by Techfest, IIT Bombay for any late, lost or misdirected entries.

5. The idea presented by the teams should be original (not protected by means of patent/copyright/technical publication by anyone else).

6. Note that at any point of time the latest information will be that which is on the website. However, registered participants will be informed through mail about any changes on the website.

7. All modes of official communication will be through the Techfest e-mail.

CERTIFICATE POLICY

Only those teams that are shortlisted for the finals and also also give a final presentation about their work during Techfest 2019-20 would be awarded an e-Certificate of Participation. The top 3 entries from this event would be provided with Certificate of Excellence.

PRIZES

The prize money will be awarded to top 5 winners via NEFT and will be processed within 30 working days after receiving the prize money from sponsors.
Winners have to mail the following information (immediately after the announcement of results) to vibhav@techfest.org

FORMAT OF MAIL :
Subject: Unravelling Transortation, <Team ID> - <Your Position> (example- Unravelling Transortation, Ut-191003 - 3rd Position)

Body of mail:
1. Account Holder's Name
2. Account Number
3. Bank name and Branch name.
4. IFSC Code
5. Photograph of Bank Passbook as a proof

TIMELINE

Late Date of Registration:9th December 2019
Final Project Report Submission:10th December 2019
Declaration of Result:13th December 2019
Final presentation & video submission:20th December
Improvisation Stage:14th December 2019 to 2nd Jan 2020
Presentation Stage: 3rd January 2020
Exhibition:3rd January 2020