

TECHFEST 2020-21

COVIDEATE

Prevention is better than cure, they say. Nothing could be truer than this in the case of the COVID19 pandemic that is spreading rampantly and leaving thousands dead in its wake

PROBLEM STATEMENT:

You are in charge of the medical team designated by the Prime Minister of India to control the spread of the pandemic in Mumbai. You are supposed to develop a model that can be put in place to achieve this goal. Some important points to keep in mind:

- Keep in mind that your goal is to curb the **transmission** of the virus by devising methods that are practical, applicable, and cost-effective.
- Understand that the Mumbai Local Trains are quintessential to the working class of the city. Your goal is to get it up and running with measures that limit the spread of the virus.
- Your model should clearly divide the responsibilities of the various local bodies, the police, municipal corporation and the medical association to name a few.
- You can make a different model for Hotspots, or densely populated areas like Dharavi

OR

VACCINE DISTRIBUTION

The Main Problem that we are going to face after the invention of a COVID vaccine is distribution of the vaccine around the Globe as fast as possible. India is one of the largest producers of the vaccine with around **70% production** of UNICEF's vaccine production taking place in the country.

Make a distribution model for the vaccine to reach every citizen in the country. Because no one is safe, unless everyone is safe.

Here you have to assume that the vaccine for the virus has already been discovered. Make sure you take care of the following points.

- How can we transport the vaccine around the country, considering the difference in environment and distance of production site and target area?
- Make a model to make sure the vulnerable, and affected people get the vaccines first.

- Make devices that could provide people with the minimum vaccine they need, accurately, thus making sure no vaccine is wasted.
- You can make an AI model that predicts the next outbreak/areas at most danger in future.

REPORT FORMAT

- Title
- Abstract
 1. Objectives
 2. Beneficiaries (For whom)
 3. Value of results (Usage)
- Background
- Statement of Problem
 1. Succinct definition of problem addressed (follows from material in the background section)
- 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?
- 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
- 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
- A link of the Google Drive Folder which contains Pictures and Video of the working model/ prototype.
- Application
 1. Your idea as a solution to the problem

- 2. Additional applications
- 3. Benefits to the users
- Future prospects, research in it and further development (in brief)
- Any other details: (Patent/Business plan etc.)

ELIGIBILITY

- Individuals or teams from the following categories are allowed:
 1. Students/research scholars of authorized institutions (students have to show their Valid College/School ID)
 2. Upto 3 years old college pass-outs.
- A team is allowed to have a maximum of 4 members.
- If the participating team feels that their idea requires more participants in their team, they can forward their request, with suitable reasons, to Covideate@techfest.org with the subject "Ideate (Team_ID): 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 ->(Hover on) Competitions-> Ideates -> COVIDEATE -> Explore More -> Register -> Fill all your details - > Now you must create/Join a team

PROJECT REPORT SUBMISSION

The project report should be mailed to with the subject 'Ideate: "COVIDEATE" Project Report: ' (for eg. Ideate: "COVIDEATE" Project Report: CV-191234). The report must be submitted in PDF format only mailed to Covideate@techfest.org.

TIMELINE

Last date of Registration	24 October
Abstract Submission	24 October
Result Announcement	31 October
Mentor Allocation	7 November
Final Rounds	18/19 December

EVALUATION

COVIDeATE 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 will get the chance to present their model/idea in the Final Round of COVIDeATE, Techfest, IIT Bombay. Participants will get a slot for presenting their model/idea to the Judges based on which they will be evaluated. 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 15th November 2020 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 2020-21 would be awarded an e-Certificate of Participation. The top 5 entries from this event would be provided with a Certificate of Excellence.

PRIZES

The prize money will be awarded to top 3 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 shubhamgautam@techfest.org

FORMAT OF MAIL :

Subject: COVIDEATE, Team_ID - Position - (example- COVIDEATE, CP191003 - 3 rd 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