



MEGALITH '11

DEPARTMENT OF CIVIL ENGINEERING
IIT KHARAGPUR



CANVASS

India has mastered the art of tall chimney construction. Many tall RCC chimneys are now dotting Indian map, a number of them constructed and completed in record short periods. The equipment, the materials, skilled man power and the design modules everything available. But still there are many cases of structural failure of chimney one after the other, so what are the reasons?

Problem Statement:

A newly constructed smoke vent at the Paricha thermal power plant in Jhansi collapsed recently. The chimney was a constructed for two units by National Building Construction Corporation. Work was in its final phase. So, the present study is to be made on the chimney collapse at Jhansi.

The contest:

What is expected of the contestants, therefore, is that they need to give a detailed step-by-step algorithm for deciding the following parameters in general and justify, with calculations and analysis, the suitability or shortcomings of the chimney construction project:

- The study of every sphere of the cause of failure of the chimney.
- The study of the chimney which stated above giving the specific cause of its failure.
- Based on the zones of earthquake and wind in which it was being constructed what would have been a better design?

It may be emphasized that the given above parameters require extensive spatial analysis.

Caveat:

Some of the data required for the study required for the contest may not be explicitly available or would be difficult to collect in a short span of time. In that case, justified assumptions may have to be made.



MEGALITH '11

DEPARTMENT OF CIVIL ENGINEERING
IIT KHARAGPUR



References:

The wind zone map is provided for the reference at
http://en.wikipedia.org/wiki/File:India_wind_zone_map_en.svg
<http://www.ias.ac.in/currensci/apr102009/911.pdf>

The seismic zones is provided for the reference at
<http://www.mapsofindia.com/maps/india/seismiczone.htm>
and for the further details regarding the seismic zone more information is available at
http://en.wikipedia.org/wiki/Earthquake_hazard_zoning_of_India

Rules:-

1. Each team should comprise of a maximum of 5 members.
2. Online and other sources should only be used as references. Any direct resemblance may lead to disqualification of the team
3. Each team is required to submit a report based on their studies in not more than 10 pages latest by December 20 2010.
4. Final presentation shall be made in front of the judges during Megalith.
5. A maximum of 15 minutes will be given for the presentation followed by a 2 minutes Q/A session.

Guidelines for report submission:

1. Paper size: A4
2. Font: Arial
3. Font size: 10
4. Spacing: Single line
5. References: All references should be listed at the end of the report
6. Forwarding: Soft copy of PDF to be sent in one file as attachment by Email.

Mail your submissions to submissions@megalith.co.in with subject as Canvass_Submission_Teamname .



MEGALITH '11

DEPARTMENT OF CIVIL ENGINEERING
IIT KHARAGPUR



For more information visit : www.megalith.co.in

For more details contact:
Sreeman Mypati
sreeman@megalith.co.in
09775289622