



HORIZON '20

CONSTRUE

OUR MOST AWAITED EVENT **HORIZON '20** IS BACK WITH **CONSTRUE** IS A TECHNICAL PAPER PRESENTATION HELD BY CIVIL ENGINEERING STUDENT'S ASSOCIATION(**CESA**) AN INTERNATIONAL STUDENT CHAPTER OF AMERICAN SOCIETY OF CIVIL ENGINEERS(**ASCE**), NMIMS' MUMBAI, WHERE PARTICIPANTS FROM ALL OVER INDIA WILL PARTICIPATE AND SOW THE SEEDS OF THEIR CREATIVITY AND IMAGINATION BY GIVING SUSTAINABLE SOLUTIONS FOR THE ISSUES BEING FACED BY VARIOUS DOMAINS IN THE INDUSTRY.

Domains:

1. Water Resources
2. Material Science
3. Transportation
4. Geotechnical
5. Environmental
6. Structures

Steps to Enroll:

1. Choose the domain you are interested in by checking out the problem statements for each attached in the file.
2. Research on the chosen problem statement and draft a Solution to it.
3. Prepare an Abstract to the Solution (60 words max.) and attach it in the registration form.
4. Teams will be shortlisted on the Basis of their Abstracts submitted about which they will be informed by 10th of september.
5. Participants have to submit the Presentation and a Detail Report of topic (600 words) by 13th Sept.

Rules and Regulations:

1. A Team of 2 is mandatory.
2. Registration form will be open till 9th of september and Registrations will no longer be accepted.
3. Shortlisted Teams will be informed about the same by 10th of September .
4. Each Team will be given 5 minutes to present their presentation and 2 minutes for Q&A round.
5. Deadline for submitting a copy of Presentation and Report is 13th of September.
6. Participants are requested to submit the Abstract, Presentation & Report copies with File name saved as the Team members name.

PLEASE NOTE THAT THE EVENT IS SCHEDULED ON 15TH OF SEPTEMBER AND DATES ARE SUBJECT TO CHANGE ABOUT WHICH TEAMS WILL BE INFORMED THROUGH MAIL



-Problem Statements-

WATER RESOURCES:

South Andaman Island is one of the most natural disaster-prone zones, very frequent to earthquakes which are often most destructive, also inherently poses various vulnerable natural hazards such as catastrophic tsunamis, coastal floods and coastal land subsidence etc. The groundwater resources of Andaman Islands are not fully exploited. It is associated with numerous critical issues such as dependency on temporal and areal distribution of precipitation, water storage potential above and below the ground, peculiar hydrogeological settings, sea water intrusion, coastal flood and lack of proper sustainable development and management plan. Moreover, there is no proper conservation, regular monitoring and management of aquifers which can lead to water scarcity, contamination and later on to water crisis. Provide a detailed study and solution to improve the ground water system of the island.

MATERIAL SCIENCE:

A widely held view that plastic products are safer and cleaner than the recycled and reusable solutions being touted earlier and are at the forefront of the fight to contain the spread of contagion. Polymers plays a vital role in improving the quality of life , than how polymer demand impacted by the pandemic?

STRUCTURES:

How will you achieve to enhance strength and ductility of CFS structural systems (elements and connections) to increase heir resistance and overall safety under extreme loading events, through the development of special connections and high-performance dual wall-frame systems which will lead to more cost-effective and resilient structural systems for multi-storey buildings especially in seismic regions

ENVIRONMENTAL:

The Kyoto Protocol is an international treaty which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits state parties to reduce greenhouse gas emissions. What are the ways in which we as a civil engineers can support in reduction of GHGs?



-Problem Statements-

GEOTECHNICAL:

It has been proven that Seismic Technology can really help us to predict the for-coming calamities. If same Technology needs to be applied in India what modifications or alteration will you do to predict seismic hazards, their reach, its intensity and its necessary specifications?

TRANSPORTATION:

COVID-19 Lockdown has shown us less pollution in cities, drastic reductions in carbon footprint, replenishment of ozone layers...all this has reduced global warming, illness due to pollution that is asthma, suffocation, eye irritation. It gives us a lesson that we can cut down humane interventions and have resilient eco system. Modern and high quality public transport is the backbone of urban transportation system How do you suggest keeping this balance and further increasing it towards the environments side even after relaxation in Covid-19 lockdown restrictions? What will be your Plan of Action if you were to coordinate with the local authorities of the state and propose them an eco-friendly way of transportation with long term future in mind.