Case Study

THEME:- GREEN HIGHWAY

'Green Highway' is a new concept that includes a roadway design integrating the functionalities of transport and ecological sustainability. An environmental approach is used throughout the planning, design and the construction.

Assume a 4-lane road to be constructed between Agra and Ladnun with total available land width as 18m-20m. The design speed for a Passenger Car can be taken as 80kmph. Participating Teams are required to come up with a design of roadway section with a sustainable approach. Minimum two sections of the roadway are required to be shown.

General Requirements: -

➢ Focus should lie on the use of alternate materials used for Bituminous works, stabilization of soils and pavement layers, tree plantation and slope protection using Bio-engineering solutions.

➢ Roadway should be designed enhancing the road safety and reducing the possible cause of accidents.

Geometrical Requirements: -

➢ For the section with horizontal alignment, the ruling radius can be assumed to be 280m.

➢ Assume the Transition Curve to be cubic parabola in shape.

➢ Specify the Stopping Sight Distance and the Overtaking Sight Distance for the plane road portion.

Instructions:-

➢ Participating Teams can have 2-3 members of same college.

➢ Teams are required to submit their design report in .pdf format illustrating the requirements with proper diagrams, wherever applicable.

- On the basis of submitted design reports, the list of Shortlisted Teams will be declared whose final presentation will be scheduled on 13th and 14th February 2021.
- The evaluation will be done on the basis of novelty of design, complexity, clarity, details in prescribed format, feasibility, practicability, sustainability of the solution, scale of impact and scope for future implementation.
- Teams can also show Highway Lighting, Traffic signs for a portion of the road in their design. Please note that it is an optional idea and not compulsory.

Prizes:

- Prizes worth ₹15,000/- will be given to the winners
- Certificate of Participation will be issued to all the participants

Important Dates:

❖ 10th February 2021	-	Deadline for Design Report Submission
❖ 12th February 2021	-	Notification to Shortlisted Teams for Final Presentation
❖ 13th – 14th February 2021	-	Presentation Round

Registration Charges: ₹250/- per Team

NOTE:

- Only the Team Leader needs to register. Details of Team Members should be filled by the Team Leader during registration.
- Guidelines and Format for Design Report Submission will be sent via email to all the Team Leaders after successful registration.
- Decision of Organising Committee will be final and binding to all.
- Please keep checking the Website and Rulebook regularly for any further updates.

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