# **Corning Future Innovator Program2025**

## Corning Digital and IT Centre India

#### Instructions

- Form a team of **two** comprising of undergraduate students of any engineering disciplines. You are not eligible to enter the competition individually.
- The problem is designed to encourage interdisciplinary thinking, robust solutioning and trending digital technology.
- Comprehend the problem statement and submit the abstract in PDF.
- Teams shortlisted for the final round will be emailed by Friday, July 11, 2025.
- All the necessary information is provided about the problem. In case, additional information is required, make suitable assumptions, and clearly state them.

By participating, you are agreeing to the following terms and conditions:

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# Problem 3 – Optimization of Fiber Optic Networks for Efficient Data Transmission in Rural India

## Background

With the increasing digitization of India, the rural parts of the country have started to gain access to the internet and digital services. However, the infrastructure for data transmission in these areas is still underdeveloped when compared to urban regions. This scenario poses a significant challenge to provide high-speed, reliable internet services to the rural population.

**Problem:** The challenge here is to design an optimized Fiber Optic Network that can effectively cater to the needs of rural India. This design should take into account the unique geographical, socio-economic, and infrastructural conditions prevailing in these areas. The network should be efficient, scalable, and cost-effective, offering the best possible data transmission rates even in the most remote locations.

### **Solution Evaluation Metric**

- Detailed plan for the network architecture, cost analysis, implementation strategy and potential barriers along with their migration plan.
- Efficiency in creating a robust and accessible internet infrastructure.
- Innovative thinking and problem solving skills.