




**Report**  
**on**  
**Community Interaction and Infrastructure Need Assessment at Nakkal  
Palli Village**

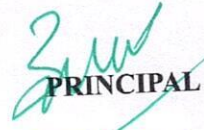
**Conducted on**  
**08-08-2025**

**Organized by**  
**Centre for Innovation and Social Transformation**

**Submitted by**  
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### Objectives:

1. To address the community's need for a safe and accessible bus waiting facility at Nakkal Palli Village.
2. To design and construct a sustainable bus shelter using eco-friendly and durable materials.
3. To engage engineering students in hands-on, community-based infrastructure development.
4. To promote institutions–community collaboration for inclusive and sustainable rural development.

### Outcomes:

The outcomes of the visit are:

- Identify and finalize a suitable site for the bus shelter through community consultation.
- Complete site survey and land measurements for design and construction planning.
- Develop functional, safe, and sustainable design layouts for the proposed shelter.
- Enhance student competencies in design thinking, planning, and sustainable construction practices.
- Establish a strong foundation for CSR-supported implementation of the project.

## Summary Report

The Centre for Innovation and Social Transformation (CIST) at KG Reddy College of Engineering and Technology initiated a community-based infrastructure development project following a request from residents of Nakkal Palli Village for the construction of a bus shelter. The absence of a waiting shelter had been causing inconvenience to villagers, especially students, daily wage workers, women, and elderly passengers, who were exposed to harsh weather conditions and unsafe roadside environments.

Recognizing the importance of this need, CIST adopted the initiative as a student-led social innovation project, integrating engineering education with sustainable development practices. The project aims to design and construct a safe, durable, and eco-friendly bus shelter using sustainable materials, while actively involving students in real-world community development.

A team of six engineering students, guided by CIST faculty mentors, undertook responsibility for the complete project lifecycle. During the field visit to Nakkal Palli Village, the students, in consultation with villagers and local representatives, identified and finalized a suitable, accessible site for the bus shelter. On the same day, the team conducted a detailed site survey and land measurements to assess feasibility, safety, and functional requirements. These surveys formed the foundation for design development and construction planning.

The proposed shelter incorporates sustainable construction principles, emphasizing efficient material use, reduced cement consumption wherever feasible, and cost-effective solutions using locally available materials. The design prioritizes commuter safety, weather protection, seating provision, and accessibility for all age groups.

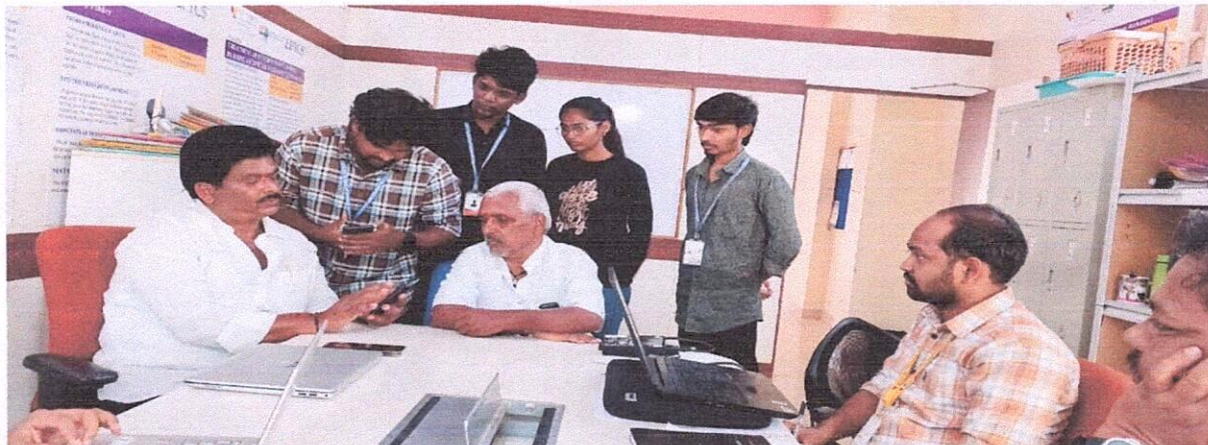
Beyond addressing an essential infrastructure gap, the project serves as a strong experiential learning platform for students, enabling the development of skills in design thinking, project planning, budgeting, teamwork, sustainable engineering practices, and social responsibility.

The Nakkal Palli Bus Shelter Project reflects CIST's mission of translating innovation into social impact. Upon completion, it will improve commuting comfort and safety while demonstrating effective institution–community collaboration. CIST seeks CSR support to implement this and similar sustainability-focused rural infrastructure initiatives across Telangana.

**Photographs with Description**



Interaction of our students and Cist team with Villagers at Nakkalpalli Grama Panchayat Office



The students team explaining about plan and planning of the construction



The CIST team, students team involved in the project work



### **Impact Analysis:**

- Improved safety, comfort, and convenience for villagers using public transportation.
- Strengthened the Unnat Bharat Abhiyan mission through need-based rural infrastructure planning.
- Reinforced CIST's commitment to social innovation and sustainable development.
- Provided students and faculty with experiential learning and real-world problem-solving exposure.
- Encouraged sustainable construction practices with reduced environmental impact.
- Contributed to SDG 9 (Industry, Innovation and Infrastructure) and SDG 11 (Sustainable Communities) by supporting inclusive and resilient rural infrastructure.

### **Expenditure:**

<b>Registration Fee</b>	<b>: NIL</b>
<b>Lunch &amp; Snacks</b>	<b>: NIL</b>
<b>Transportation</b>	<b>: NIL</b>
<b>Total</b>	<b>: NIL</b>