

## Utilizing Local Waste Material in the Production of Concrete/Asphalt

### Challenge:

- High production costs and environmental impact from conventional concrete and asphalt materials, alongside significant industrial waste generation.

### Objective:

- Explore the use of local industrial waste, including grit blasting metal waste and ferrochrome slag, as partial substitutes for cement, sand, and aggregate.
- Ensure performance meets engineering standards for strength, durability, and usability.
- Recommend solutions for commercial implementation.

### Insights:

- Up to 20% replacement of conventional materials offers cost savings and environmental benefits.
- Evaluated mix performance for sustainable construction practices and circular economy goals.

### Impact:

- Promoted sustainable resource use and reduced reliance on natural raw materials.
- Contributed to cost reduction and environmental conservation in construction.

