

Experimental Study on Newly Construction of Rigid Pavement and Material Estimation

Mr.Md. Azam¹, Mr. T. Asher², M. Divya³, Ch. Niharika⁴, K. Ganeshwari⁵

Christu Jyothi Institute of Technology and Science, Jangaon, Telangana, India

Jawaharlal Nehru Technological University, Hyderabad, Telangana, India

Abstract: *The construction of internal Cement Concrete (CC) roads plays a pivotal role in enhancing connectivity, durability, and sustainability within residential, commercial, and industrial areas. The construction involves systematic stages, including site preparation, sub grade preparation, laying sub-base, placement of formwork, and pouring concrete. The choice of materials, such as Portland cement, coarse and fine aggregates, and water, is critical to achieving strength and longevity. The estimation process considers the total length, width, and thickness of the road, along with labor, machinery, and material costs. Advanced estimation tools and techniques, including software-based analysis, are employed to ensure accurate budgeting and resource allocation. This study emphasizes adopting efficient construction practices, quality control measures, and sustainable materials to minimize environmental impact while maximizing economic value.*

Keywords: Focused on materials, testing methods, cost estimation processes, and Optimization of cost