

# Structural Design of Aluminium Formwork and Comparison with Conventional Formwork in High-Rise Building

Prof. Shahrukh.S. Shaikh<sup>1</sup>, Anarase Vishal Madhukar<sup>2</sup>,  
Mane Dipali Gopal<sup>4</sup>, Sanket Shivaji Rao Gamewad<sup>4</sup>  
Associate Professor, Department of Civil Engineering<sup>1</sup>  
Students, Department of Civil Engineering<sup>2,3,4</sup>  
Sinhgad Institute of Technology and Science, Pune, India

**Abstract:** *The use of formwork systems is an essential component in the construction industry, providing temporary moulds for concrete placement. The selection of an appropriate formwork system can significantly impact the efficiency and quality of construction, particularly in high-rise buildings. This paper focuses on the structural design of aluminium formwork and compares it with conventional formwork systems in high-rise building construction. The study aims to highlight the advantages of aluminium formwork in terms of speed, cost-effectiveness, sustainability, and structural performance. Additionally, it discusses the challenges associated with its implementation and presents recommendations for optimizing the use of aluminium formwork in high-rise buildings.*

**Keywords:** Aluminium formwork, conventional formwork, structural design, high-rise building, comparison, speed, cost-effectiveness, sustainability, structural performance, challenges, implementation, recommendations

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