

# ICES 2024

## **TITLE OF PROJECT: AUTOMATED CLASH DETECTION AND RESOLUTION IN BIM BY USING REVIT**

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In the construction industry, design errors, clashes, inaccurate estimates, material wastages and safety concerns remain persistent challenges. When distinct features or components in design collide or interfere with one another, it's called a clash in the context of construction and Building Information Modeling (BIM) There is a pressing need for an integrated project management solution that addresses these issues comprehensively.

Clash detection serves as a crucial method in the field of construction, identifying conflicts or clashes among different architectural components through advanced software like Revit. Its primary function is to ensure the smooth integration of structural, architectural, and MEP elements, thereby preventing issues during construction and enhancing overall project efficiency. The clash detection process involves the meticulous examination of 3D models, enabling project stakeholders to visualize and rectify conflicts in design or coordination. This proactive identification and resolution of clashes contribute to the overall success of construction projects, promoting smoother workflows and minimizing disruptions during the construction phase.

Our project focuses on improving Clash Detection us

Revit. The goal is not only to identify clashes but also to automatically address and resolve them by establishing specific rules. To achieve this objective, we rely on Revit, a powerful building information modelling software, for efficient clash detection and resolution.

**KEYWORDS:** Revit, BIM, Clash Detection, MEP, Resolution, Naviswork, interoperability tool

**CATEGORY:** Construction Management and Methods