

# Finite Element Analysis on critical relative slippage of bolted joint under transverse loading

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## **ABSTRACT**

Critical relative slippage (Scr) is known as a limit before loosening mechanism to occur. This limit is very crucial to predict the performance of bolted joint. Therefore, in this study, investigation of Scr for M10 bolted joint under transverse loading was conducted using finite element (FE) analysis. FE model was validated by comparing the relationship between preload and twisting torque for FE model and theoretical values. Scr values from FE analysis and experimental results were compared and good qualitative agreement was obtained.

## **KEYWORDS**

Critical relative slippage; transverse loading; Finite Element Analysis

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