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**Title:**

**Stress Analysis of Reinforced Concrete Bridge Girders Subjected to Impact Load**

**Abstract:**

Concrete bridges often exposed to impact loads resulting from the movement of vehicles, because of the presence of cracks in the asphalt layers or at zones of joints between the girders. There are also frequent cases of exposure of collision of these bridge girders with the over-high vehicles when passing under bridges. Forces resulting from this impact loads often leads to get high stresses that may exceed the strength of these girders and lead to the formation of cracks or crushing parts of them or even collapse. The research aims to study and classify these loads and assess the damages caused by them and suggest possible solutions. The research uses finite element method to model the girders and bridges decks and nonlinear analysis methods to resolve the issue.