

## **Pushover Analysis of Seismic Performance for Steel Trusses Bridges**

**Student Name: Wael Abu Jame'**

### **ABSTRACT**

Pushover analysis has become an effective tool for seismic design of medium and high-rise buildings under dynamic loads and severe earthquakes. However, in order to apply a traditional pushover analysis can be difficult for complicated steel structures such as large span structures. In this research, pushover analysis was adopted to evaluate the dynamic behavior of some steel truss structures under severe dynamic loads and earthquakes. Results and discussions are presented for some case studies of previous collapsed steel truss and long span bridges. Pushover curves will be obtained by nonlinear static analysis. The maximum displacements and plastic hinge positions will be located by pushover analysis, the main objective of this master research thesis is to review previous failure mechanisms of previous steel trusses structures/bridges, moreover check the possibility of assessing steel truss structures using pushover analysis using parametric study in order to check some important structural aspects.