

HIGHER TECHNICAL INSTITUTE  
NICOSIA - CYPRUS  
CIVIL ENGINEERING COURSE

DIPLOMA PROJECT

STRUCTURAL STEEL DESIGN  
OF A STEEL ARCHED BRIDGE

C/1021

BY

**KKOLAS PETROS**

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## PREFACE

This Diploma Project book was completed under the overall research into many books related with the topic approached. Books were borrowed from Higher Technical Institute Library and University of Cyprus Library. The internet was used in order to gather useful information about the bridges in general. Furthermore internet helped into the better understanding of the aim by looking into pictures from bridges all around the world.

In this Diploma Project book the reader will find the designing details of an arched bridge with Nielsen type.

In Chapter 1 is the project introduction with general thoughts about steel design in general.

In Chapter 2 there are 3 verification examples with simply examples from the steel design course. They were solved in two ways, one by hand and one by the use of STAAD.*pro* engineering software. Their results are compared and commented.

In Chapter 3 is the main chapter of the project. The design and all the procedure followed is explained. The output code from STAAD.*pro* is also showed and drawings as well.

In Chapter 4 main conclusions in concerned of the project are stated.

Also at the end of the book there are appendices used during the project and bibliography.

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