



**ARAB ACADEMY FOR SCIENCE & TECHNOLOGY  
AND MARITIME TRANSPORT  
COLEGE OF ENGINEERING AND TECHNOLOGY  
BUILDING AND CONSTRUCTION ENGINEERING DEPARTMENT**

**GRADUATION PROJECT**

# **AIRPORT ENGINEERING**

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نرفع درجات من نشاء وفوق كل ذي علم عليم

صدق الله العظيم

## إهداء

إلى امي الغالية وابي العزيز  
إلى منارات العلم الشامخة  
التي أنارت دروب علمنا  
وهونت علينا غربتنا  
أساتذتي الكرام

# **Abstract**

The project consists of two parts:

The first part aims to make a design for an *Airoport*, in a given zone on a contour map. This design consists of:

- Designing the total length of the main runway
- Wind rose analysis
- Designing the longitudinal section of main runway
- Designing the Layout of the airport
- The Determination of safety surfaces in the airport
- Designing the instrumental landing system
- Designing the light system of Calvert
- The navigation marking
- Airport pavement marking
- Designing of Rigid and Flexible pavements

The *Second part* is a case study for noise at some of Alexandria city roads that aim to calculate noise distribution and its effect on environment. Also the precautions that should be taken to eliminate or at least to decrease its effect.

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