# HIGHER TECHNICAL INSTITUTE

# MECHANICAL ENGINEERING COURSE

#### **DIPLOMA PROJECT**

# DEVELOPMENT OF A ROBOTIC SYSTEM FOR SORTING AND PACKING DIFFERENT PRODUCTS

M/999

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JUNE 2005

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#### DEVELOPMENT OF A ROBOTIC SYSTEM FOR SORTING AND PACKING DIFFERENT PRODUCTS

By

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#### **BY: CHRISTOS GEORGIADES**

#### ABSTRACT

For the purpose of becoming aware with the Fanuc robot an introduction to robotics was already achieved. As it will described later on, robots can easily perform tasks difficult for the human beings. There are many other advantages, which will be described later in detail.

The chapters 1 to 3 are an introduction to the industrial robots and their classifications. Chapter 4 covers their applications. It could be noted that the next chapters 5 and 6 give important information about the conveyor systems and end-effectors used by robots. Chapter 7 deal's with the programming of robots and their programming languages. In chapter 8 familiarization with the Fanue Arc Mate 100i, its specifications and capabilities can be achieved.

Chapters 9 to 12 explained the procedure of development and the work done during this project. Also Important information is given about the selection of products, the conveyor preparing, gripper design and programming of the robot to achieve the objectives.

Chapter 13 gives a lesson about the importance of safety during working with robots. Finally in chapter 14, deal's with improvements could be done, during this project, discussion about the industries, conclusions and suggestions.

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