



# MULTIMEDIA AND ITS APPLICATIONS

*Edited by*  
AKRAM M. ZEKI



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# Chapter 12

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## Introduction to Computer Graphics

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### Introduction

Computer graphics represents the most recent development in improving the efficiency of communications between human beings and computers. It is used in different areas for example displaying the outcome of design and controlled computations and visualization, producing TV commercials and feature films, simulation and analysis of real-world problems, PC aided pattern, graphical end user interfaces that increases the communication bandwidth among humans and machines, and many others. The advent of CRTs brought about a major change in the world of computers. Computer graphics is application oriented.

The availability of graphical tools as well as systems has significantly influenced developments throughout computer-aided design as well as manufacturing, including automotive and aerospace sectors, molecular modeling as well as drug design, health care imaging, architectural design, and the leisure industry. Today, many scientific as well as engineering disciplines which were once distinct via computer graphics are often interrelated with this.

### Objectives

The objectives of this chapter are:

1. To introduce the fundamentals of computer graphics in multimedia.
2. To explore the characteristics of Applications of Computer Graphics in multimedia.