COMPUTER GRAPHICS

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PREFACE

The importance of "**COMPUTER GRAPHICS**" is well known in various Engineering fields. This book covers the importance of Computer Graphics and recent trends in Computer Graphics.

Computer Graphics is a challenging field because it is based on knowledge from many areas.Properly modeling the interaction of light with objects require an understanding of how those interactions occur in real world.This provides an introduction to the process of computer graphics and presents some of the techniques and challenges in creating images using a computer.

The book provides foundations of computer graphics theory, hardware and programming, as well as outlines how computer graphics problems can be solved in major application areas.

The main idea of this book is to show how small formulas like geometric DNAs can be used for constituting complex shapes and motions, and how even a common personal computer can be used for solving advanced 3D computer graphics, shape modeling, and web visualization problems.

We have divided this book into five chapters, where the first four chapters explains the basics of computer graphicsand the last chapter explains the recent trends.

The main aim of this book is to make the students to understand the concepts easily. This book makes the understanding of subject in a clear way and makes it more interesting.

✍ *Dr. H. Lilly Beaulah*

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We deem it a proud privilege to extend our greatest sense of gratitude to **Dr. R Samson Ravindran**, Executive Director Mahendra Engineering Colleges for the inspiring guidance and valuable suggestions throughout the pursuance of this report.

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We would like to express a special note of gratitude to the fantastic editing team of **VSRD Academic Publishing (A Division of Visual Soft India Private Limited)** in releasing this book.

Finally, this work would not have been possible without the love and support of **our colleagues, family members and friends**. We are extremely grateful to one and all.

✍ *Dr. H. Lilly Beaulah*

✍ *Mrs. M. Keerthana*

✍ *Mrs. S. Manimekalai*

Thirumigu. M.G.BHARATHKUMAR
Founder & Chairman, Mahendra Educational Trust

Forward

"Computing in their capacity as a tool, computers will be but a ripple on the surface of our culture. In their capacity as intellectual challenge, they are without precedent in the cultural history of mankind".

-Edsger Dijkstra, 1972 Turing Award Lecture

Computer Science and Engineering as an academic discipline has evolved to embrace a set of intellectual challenges on a par with other sciences. This fact, combined with the undeniable impact of Computer Science and Engineering on the modern world, demands an introductory college text book comparable with commonly-used textbooks in physics, chemistry, or biology. Accordingly, this book is intended to meet the need for an introductory college text in Computer Science and Engineering. The distinctive feature of the book is that it has broader coverage of the field than is found in many texts that are currently in use.

I am delighted to note that the HOD of Computer Science and Engineering of Mahendra College of Engineering, Dr. H. Lilly Beaulah along with his faculty members Mrs. M. Keerthana And Mrs. S. Manimekalai have written this book on "COMPUTER GRAPHICS" nicely, for the benefit of student community. They have accomplished this goal, and I trust their work will encourage and enlighten all who have an interest in computers, computer science and the growing role on information and computer technology in the modern world.

M.G.BHARATHKUMAR
Founder & Chairman, Mahendra Educational Trust

Dedicated

to

Our Family, Friends &

Students

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