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# **Image Engineering**

Processing, Analysis, and Understanding

**Yujin ZHANG** 

# **DESCRIPTION**

One of the fastest growing disciplines, *Image Engineering* is a broad subject encompassing computer science, electrical and electronic engineering, mathematics, physics, physiology, and psychology. This comprehensive book attempts to introduce the basic concepts, theories, methodologies, and techniques of image engineering. At the same time, it also furnishes a wide-ranging survey of up-to-date topics and state-of-the-art methods in image engineering.

#### **KEY FEATURES**

- This book consists of four parts dealing respectively with image fundamentals, image processing, image analysis, and image understanding.
- Numerous figures, tables, examples, and problems are given in this book for helping the students understand the subject. Also, more than 300 key references are given at the end of the book.
- It is suitable for courses in image engineering, computer science, electrical and electronic engineering, image pattern recognition, information processing, and intelligent information systems.
- It can also be of great help to scientists and engineers doing research and development related to image engineering.

## **ABOUT THE AUTHOR**

**Professor Yujin Zhang**, Tsinghua University, is mainly engaged in the research of image engineering. He has published more than 300 research papers and 18 books. He is the author of *Image Segmentation and Content-based Visual Information Retrieval*. He has also edited two collections of research articles, *Advances in Image and Video Segmentation* and *Semantic-based Visual Information Retrieval*. He is vice president of China Society of Image and Graphics and the director of the academic committee of the society.

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# ANCILLARIES

Instructor's Solutions Manual and PowerPoint slides available.