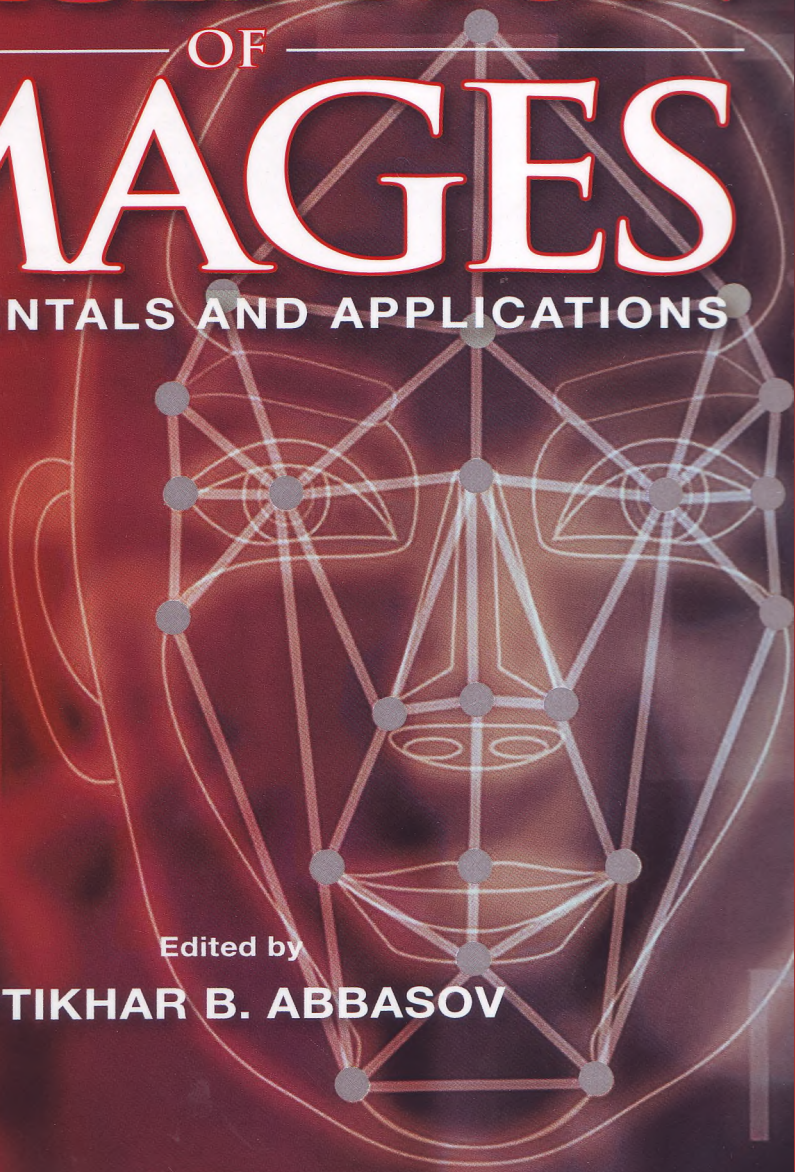
# RECOGNITION AND PERCEPTION OF IMAGES

## FUNDAMENTALS AND APPLICATIONS



Edited by

IFTIKHAR B. ABBASOV

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## Fundamentals and Applications

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**Iftikhar B. Abbasov**


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**This book is dedicated to the unique interdisciplinary research of imagery processing, recognition and perception.**

The contents of this book are based on the concepts of mathematical processing, compositional analysis applied in art and design, and psychological factors of the information perception process. The conduction of compositional analysis carried out in the course of images processing and recognition, creation of the image project solution and modeling of the conceptual space structures are considered together with the mechanism of their perception.

Written and edited by a group of international experts, the practical applications for industry are covered, including the influence of internet memes on social networks and face recognition technology subject to interferences. The algorithms of perception and improving of accuracy necessary for satellite imagery recognition and complex reflection from the object are represented with the use of artificial neural networks.

Not just a study in how humans recognize and perceive images, this outstanding new volume delves into how these processes are used in technology for continuously evolving industrial applications. Whether for the veteran scientist or engineer, or for the student, this is a must-have for any library.

This outstanding new volume:

- Combines mathematics, arts, and psychology to cover the basic concepts and applications for the recognition and perception of images
- Is based on mathematical processing, compositional analysis in art and design, and psychological factors of the information perception process
- Presents algorithms for increasing recognition accuracy using artificial neural networks of satellite images
- Presents the technologies of face recognition

**Iftikhar B. Abbasov**, PhD, is a specialist in mathematical modeling, computer engineering and industrial design at the Southern Federal University in Russia. He has numerous publications to his credit, focusing on the use of mathematical modeling and high-level computer programming for practical applications such as ocean exploration, coastal and aircraft engineering, and perception of images.

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