

# Overview

Image Feature Extraction Techniques

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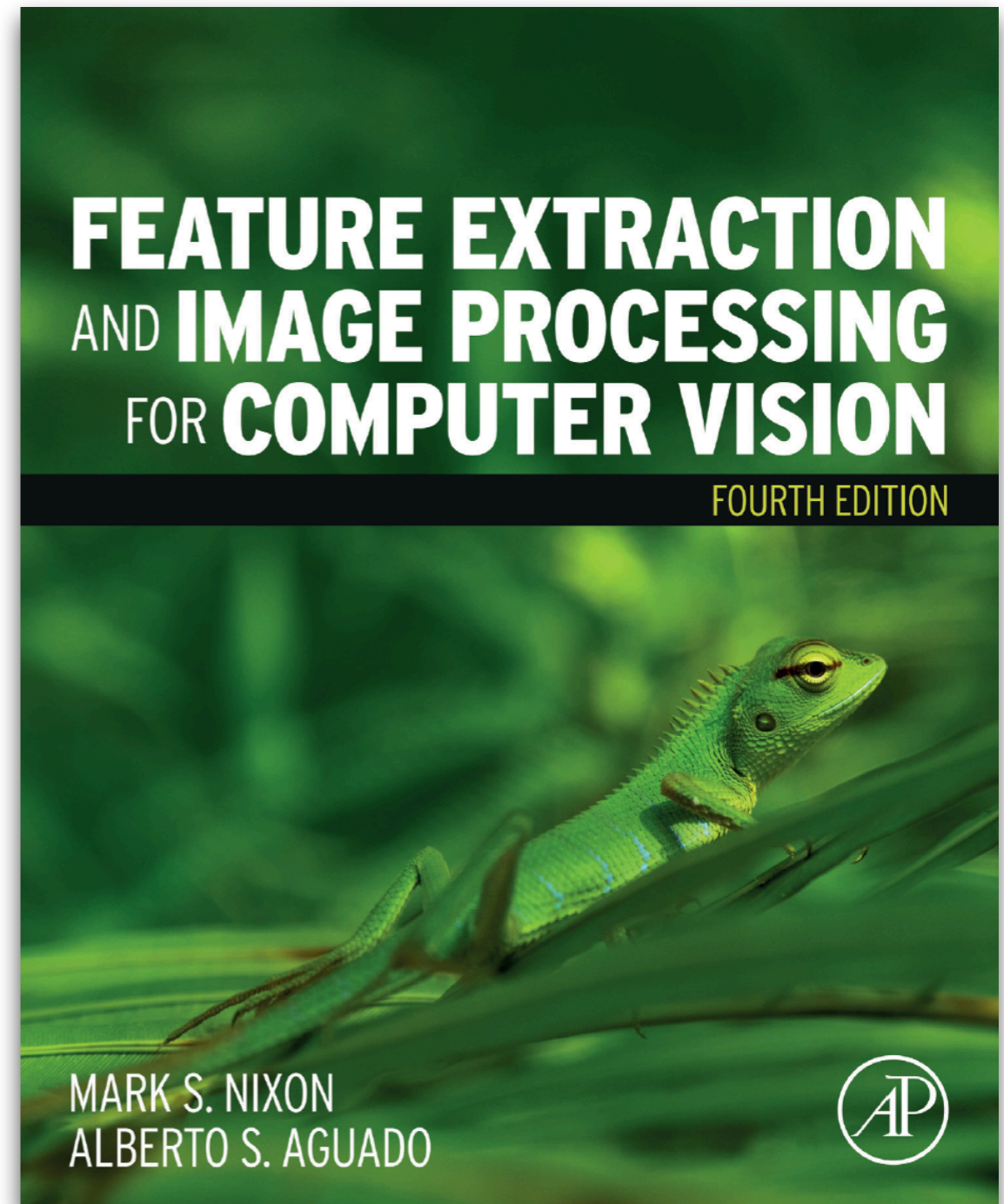
# Lecture goals

## Learn and UNDERSTAND

- the basics of vision and color representation;
- the basics of image description (including in the frequency domain);
- basic image transformations (including uses morphological functions, creates histograms, creates and applies various filters);
- basic methods of extracting features (including edge detection, curvature, Hough transform, FAST, ORB, SIFT, SURF, BRIEF).

# Feature Extraction and Image Processing for Computer Vision by Mark S. Nixon, Alberto S. Aguado

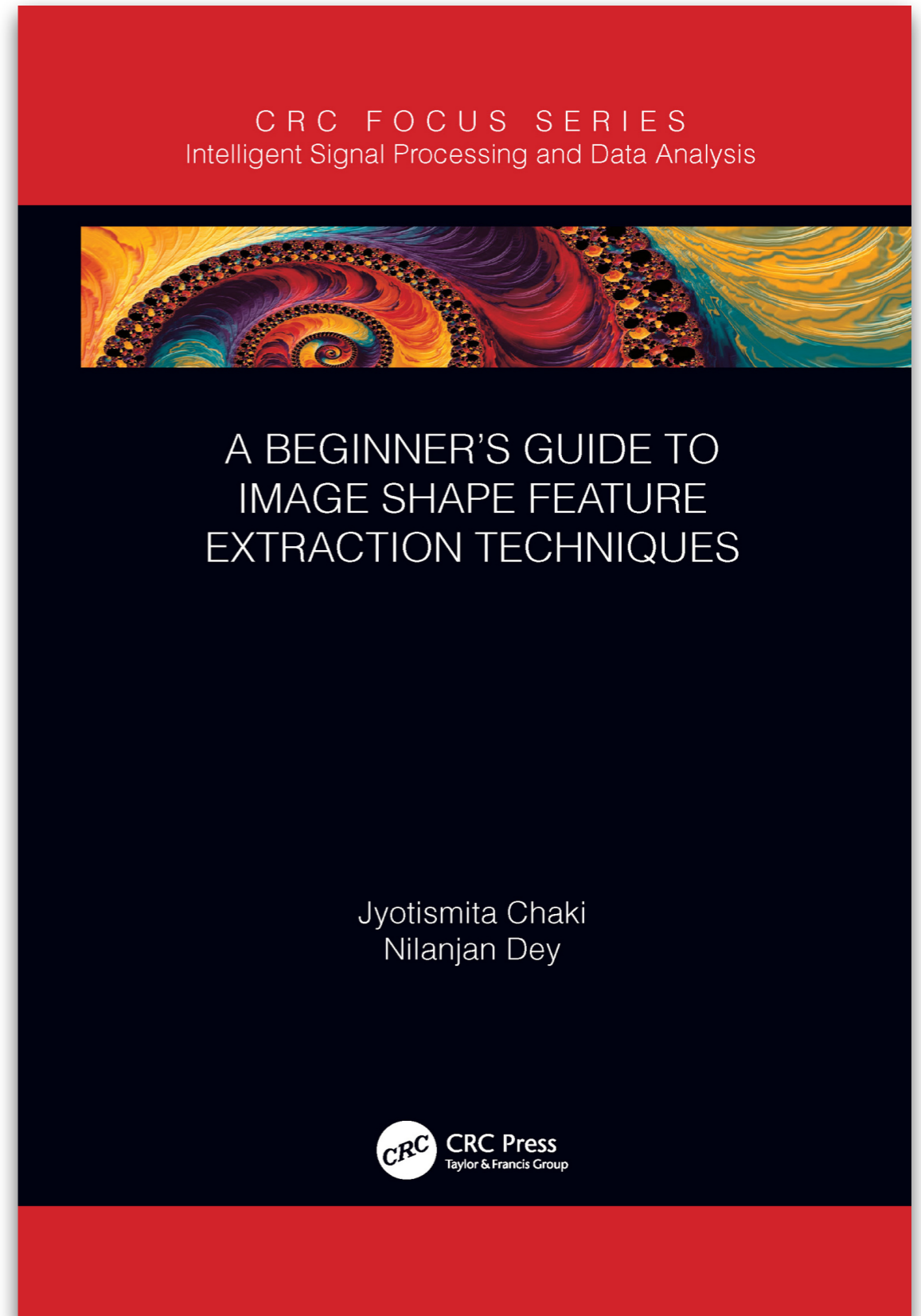
Academic Press (Elsevier), 2020  
(4th edition)



# A Beginner's Guide to Image Shape Feature Extraction Techniques

by **Jyotismita Chaki,  
Nilanjan Dey**

CRC Press, June 30, 2021



# The Image Processing Handbook

by John C. Russ, F. Brent Neal

August 2, 2017 (7th Edition)

