About this book

His book explains why the finite topological space known as abstract cell complex is important for successful image processing and presents image processing methods based on abstract cell complexes, especially for tracing and encoding of boundaries of homogeneous regions. Many examples are provided in the book, some teach you how to trace and encode boundaries in binary, indexed and color images. Other examples explain how to encode a boundary as a sequence of straight-line segments which is important for shape reconstruction. A new method of edge detection in two- and three-dimensional images is described. This method directly uses the color channels instead of the brightness which enables the recognition of an edge between regions of different colors but of the same brightness.

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