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Autore	Oliva Diego
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Disciplina	511.8
Soggetti	Computational intelligence Signal processing Artificial intelligence Computational Intelligence Signal, Speech and Image Processing Artificial Intelligence
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	An introduction to machine learning -- Optimization -- Electromagnetism – Like Optimization Algorithm: An Introduction -- Digital image segmentation as an optimization problem -- Template matching using a physical inspired algorithm.-Detection of circular shapes in digital images -- A medical application: Blood cell segmentation by circle detection -- An EMO Improvement: Opposition-Based Electromagnetism-Like for Global Optimization.
Sommario/riassunto	This book presents a study of the use of optimization algorithms in complex image processing problems. The problems selected explore areas ranging from the theory of image segmentation to the detection of complex objects in medical images. Furthermore, the concepts of machine learning and optimization are analyzed to provide an overview of the application of these tools in image processing. The material has been compiled from a teaching perspective. Accordingly, the book is primarily intended for undergraduate and postgraduate students of Science, Engineering, and Computational Mathematics, and can be used for courses on Artificial Intelligence, Advanced Image Processing,

Computational Intelligence, etc. Likewise, the material can be useful for research from the evolutionary computation, artificial intelligence and image processing co.
