

METAHEURISTIC ALGORITHMS FOR NEURAL NETWORK OPTIMIZATION FOR BIOMEDICAL IMAGING APPLICATIONS

ABOUT BOOK

The field of biomedical image processing has undergone significant advancements in recent years. Deep neural networks have shown remarkable promise in tasks ranging from medical image analysis to disease diagnosis and treatment planning. However, the effectiveness of neural networks heavily relies on their architecture and hyperparameters, making optimization a crucial step in achieving superior performance. This book highlights the exciting realm of optimizing neural networks using an inspired metaheuristic strategy, exploring its application to biomedical image processing. The book strives to offer a comprehensive exploration of a novel approach to optimizing neural networks for biomedical image analysis. By combining the power of metaheuristic algorithms with insights from the world of biomedical imaging, this book provides valuable insights and perfect guidance for researchers, practitioners, and students in the field. The fusion of advanced technology and medical science holds immense potential for improving healthcare outcomes, and this book serves as a roadmap to unlock that potential.

TENTATIVE CHAPTERS

- Metaheuristic Algorithms in Medical Imaging
- Deep learning in Medical Imaging
- Metaheuristic Optimisation strategies
- Application areas of Metaheuristic Optimisation algorithms
- Optimizing deep learning in BIP
- Human inspired algorithms applications in BIP
- Nature and bio- inspired algorithms in BIP
- Physics- inspired algorithms in BIP
- Swarm- inspired algorithms in BIP
- Evolution – inspired algorithms in BIP
- Game –inspired algorithms in BIP

IMPORTANT DATES

Abstract Submission: **30, November 2023**

Abstract Acceptance: **30, January 2024**

Full Chapter Submission: **30, March 2024**

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