Provides an in-depth and even treatment of the three pillars of computational intelligence and how they relate to one another

This book covers the three fundamental topics that form the basis of computational intelligence: neural networks, fuzzy systems, and evolutionary computation. The text focuses on inspiration, design, theory, and practical aspects of implementing procedures to solve real-world problems. While other books in the three fields that comprise computational intelligence are written by specialists in one discipline, this book is co-written by current former Editor-in-Chief of IEEE Transactions on Neural Networks and Learning Systems, a former Editor-in-Chief of IEEE Transactions on Fuzzy Systems, and the founding Editor-in-Chief of IEEE Transactions on Evolutionary Computation. The coverage across the three topics is both uniform and consistent in style and notation.

- Discusses single-layer and multilayer neural networks, radial-basis function networks, and recurrent neural networks
- Covers fuzzy set theory, fuzzy relations, fuzzy logic interference, fuzzy clustering and classification, fuzzy measures and fuzzy integrals
- Examines evolutionary optimization, evolutionary learning and problem solving, and collective intelligence
- Includes end-of-chapter practice problems that will help readers apply methods and techniques to real-world problems
Fundamentals of Computational intelligence is written for advanced undergraduates, graduate students, and practitioners in electrical and computer engineering, computer science, and other engineering disciplines.

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