

Preface

In this modern era, we need instruments that can be applied to the problems arising in interdisciplinary fields. In this sense, computational intelligence (CI) is a developing computing approach for the forthcoming several years. CI gives the liveness to model the problem according to given requirements. It helps to find swift solutions to the problems arising in numerous disciplines. These methods mimic human behavior. The origins of CI are found in fuzzy logic, data analysis and intelligent systems. CI constitutes of following three main parts:

- A. Fuzzy systems
- B. Neurocomputing
- C. Nature-inspired algorithms

Above stated techniques are widely used in the field of engineering, management and health. These techniques can be clubbed together to give better performances. Every technique has its own strength. Fuzzy logic has the capacity to cope up with imprecise data, linguistic terminology or vague form of the information. Neural networks can learn with examples and can produce extraordinary results. Nature-inspired algorithms are inspired by nature's way of adaptation. This book aims to cover recent advancements in the field of CI. It will cover the theoretical as well as the application part of the computational intelligence. The projected audience for this book will be scientists, researchers and postgraduate students who can use these techniques directly as black-box or can modify according to their research problems.

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