



Special Issue Reprint

Mathematical Fuzzy Logic in the Emerging Fields of Engineering, Finance, and Computer Sciences

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Mathematical fuzzy logic (MFL) specifically targets many-valued logic and has significantly contributed to the logical foundations of fuzzy set theory (FST). It explores the computational and philosophical rationale behind the uncertainty due to imprecision in the backdrop of traditional mathematical logic. Since uncertainty is present in almost every real-world application, it is essential to develop novel approaches and tools for efficient processing. This book is the collection of the publications in the Special Issue "Mathematical Fuzzy Logic

in the Emerging Fields of Engineering, Finance, and Computer Sciences", which aims to cover theoretical and practical aspects of MFL and FST. Specifically, this book addresses several problems, such as:

- Industrial optimization problems
- Multi-criteria decision-making
- Financial forecasting problems
- Image processing
- Educational data mining
- Explainable artificial intelligence, etc.





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