

CALL FOR CHAPTER
Proposal Submission Deadline: August 1, 2008
Intelligent Soft Computation and Evolving Data Mining:
Integrating Advanced Technology
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Introduction

Since its inception, data mining has been described as "the nontrivial extraction of implicit, previously unknown, and potentially useful information from data." Data mining was usually used by business intelligence organizations and analysts to extract useful information from databases. But increasing applications of data mining have been found in many other areas to extract information from the enormous data sets generated by modern experimental and observational methods. However, due to the intractable computational complexity of many existing data mining techniques for real world problems, advanced techniques that are tolerable to imprecision, uncertainty, approximation, and adaptable to ever-changing environments are very desirable.

In contrast to conventional hard computing, the basic ideas underlying soft computing is to exploit the tolerance for imprecision, uncertainty, partial truth, and approximation to achieve tractability, robustness and low solution cost. At this juncture, the principal constituents of soft computing are Fuzzy Logic (FL), Neural Computing (NC), Evolutionary Computation (EC) Machine Learning (ML) and Probabilistic Reasoning (PR), with the latter subsuming belief networks, chaos theory and parts of learning theory. It has been demonstrated in many areas that the soft computing methodologies are complementary to many existing theories and technologies.

Objective of the Book

As a consequence, the main objective of this book is to provide an international exchange for the synergy of new developments from two different research disciplines. As such, through the fusion of diverse techniques and applications, new and innovative ideas will be stimulated. Moreover, the book will provide a highly regarded outlet for the most emerging research in the fields and seeks to bridge underrepresented themes within the data mining and soft computing disciplines.

Recommended topics include, but are not limited to, the following:

Fuzz Sets	Classification
Fuzzy Logic	Clustering
Neural Networks	Regression
Fuzzy-Neural	Rule Generation
Genetic Algorithms	Summarization
Machine Learning	Dependency Modelling
Evolutionary Computation	Association Rule
Probabilistic Reasoning	Sequence Analysis
Belief Networks	Web Intelligence
Chaos Theory	Data Streams
Swamp Intelligence	Text Mining
Self-adaptation Techniques	Graph Mining
Learning Theory	Social Network Analysis
Cooperative Learning	Spatial Mining
Computational Intelligence	Multi-relational Mining

Submission Procedure

Researchers and practitioners are invited to submit before *August 1, 2008*, a 2-3 page chapter proposal clearly explaining the mission and concerns of his or her proposed chapter. Authors of accepted proposals will be notified by *August 15, 2008* about the status of their proposals and sent chapter guidelines. Full chapters are expected to be submitted by

October 31, 2008. All submitted chapters will be reviewed on a double-blind review basis. This book is scheduled to be published by IGI Global (formerly Idea Group Inc.), publisher of the “Information Science Reference” (formerly Idea Group Reference) and “Medical Information Science Reference” imprints. For additional information regarding the publisher, please visit www.igi-global.com.

Important Dates

August 1, 2008:	First proposal deadline
August 15, 2008:	Notification of acceptance
October 31, 2008:	Full chapter deadline (Phase I)
December 20, 2008:	Notification of acceptance (Phase I)
January 20, 2009:	Revised chapter deadline (Phase II)
February 15, 2009:	Notification of acceptance (Phase II)
March 15, 2009:	Final accepted chapter deadline (Phase I & II)

*Inquiries and submissions can be forwarded **electronically** (Word document) or by **mail** to:*

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