

Preface

Relational data mining is application of data mining techniques to discover knowledge that is hidden in data with a relational structure. It aims to integrate methods from existing fields applied to an analysis of data represented by multiple relations, producing new techniques for mining relational data. It has been successfully applied in areas such as bioinformatics, marketing, or fraud detection.

Granular computing is a new and rapidly growing paradigm of information processing. It integrates theories, methodologies, techniques, and tools that make use of granules in the process of problem solving. Granular computing methods have widely and successfully been applied in the field of data mining. They have mainly been used to discover knowledge from single table databases; however, research on incorporating them into mining relational data has also been done.

The goal of this monograph is to highlight research on mining relational data in the paradigm of granular computing. This newly emerging field can be identified as granular computing-based relational data mining and shortly called *granular-relational data mining*. The monograph provides unified frameworks for performing typical data mining tasks such as classification, clustering, and association discovery. The book is also aimed to establish itself as a basic text at the intersection of two fields: relational data mining and granular computing.

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