Foreword

With the rapid introduction of highly sophisticated computers, (tele)communication, service, and manufacturing systems, a major shift has occurred in the way people use technology and work with it. The objective of this book series on Human Factors and Ergonomics is to provide researchers and practitioners a platform where important issues related to these changes can be discussed, and methods and recommendations can be presented for ensuring that emerging technologies provide increased productivity, quality, satisfaction, safety, and health in the new workplace and the Information Society.

This Handbook was created with the input of a distinguished International Board of 15 who represented some of the foremost authorities in Data Mining from academia and industry. Nong Ye very astutely established this Board to ensure that a balanced depth and breadth coverage occurs in the Handbook. The 28 chapters of the Handbook were authored by 45 of some of the leading international authorities, representing four continents.

The 245 figures and 72 tables of the Handbook illustrate, in a most effective way, the concept, methods, and tools of data mining. The 1,164 references of the Handbook provide a road map for further in-depth study of any of the data mining concepts and methods. Thirteen of the chapters deal with the methodologies of data mining; six chapters deal with how to manage data mining for maximizing outcome utility. Finally, nine chapters illustrate the methods and processes utilized for diversified data mining applications.

The Handbook should be of use to both developers of data mining methods and tools and to those who want to use data mining in order to derive scientific inferences relating to specific domains where extensive data is available in scattered reports and publications.

—Gavriel Salvendy Series Editor West Lafayette, Indiana July 2002