

Improving Knowledge Discovery through the Integration of Data Mining Techniques

Part of the Advances in Data Mining and Database Management (ADMDM) Book Series

Muhammad Usman (Shaheed Zulfikar Ali Bhutto Institute of Science and Technology, Pakistan)

Description:

Data warehousing is an important topic that is of interest to both the industry and the knowledge engineering research communities. Both data mining and data warehousing technologies have similar objectives and can potentially benefit from each other's methods to facilitate knowledge discovery.

Improving Knowledge Discovery through the Integration of Data Mining Techniques provides insight concerning the integration of data mining and data warehousing for enhancing the knowledge discovery process.

Readers:

Decision makers, academicians, researchers, advanced-level students, technology developers, and business intelligence professionals will find this book useful in furthering their research exposure to relevant topics in knowledge discovery.

ISBN: 9781466685130

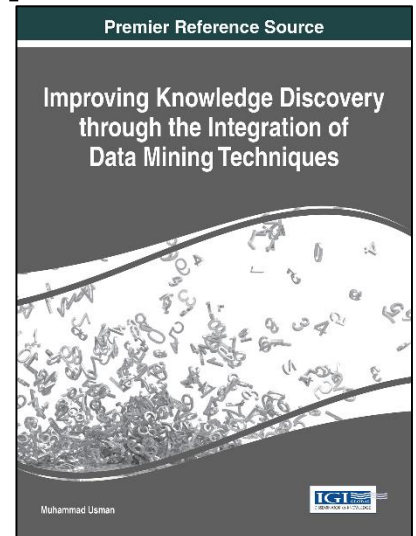
Release Date: June, 2015

Copyright: 2015

Pages: 361

Topics Covered:

- Data Mining Techniques
- Data Warehousing Applications
- Exploratory Data Analysis
- Interactive Data Exploration/Visualization and Discovery
- Knowledge Discovery Framework and Process
- OLAP Tools
- Rough Computing



Hardcover +
Free E-Access:
\$225.00

E-Access
Only:
\$210.00



Section 1

Chapter 1

Integration of Data Mining and Statistical Methods for Constructing and Exploring Data Cubes
Muhammad Usman, Shaheed Zulfikar Ali Bhutto Institute of Science and Technology, Pakistan

Chapter 2

Online Processing of End-User Data in Real-Time Data Warehousing
Muhammad Asif Naeem, Auckland University of Technology, New Zealand

Chapter 3

Multi-Relational Data Mining: A Comprehensive Survey
Ali H. Gazala, Auckland University of Technology, New Zealand
Waseem Ahmad, Auckland University of Technology, New Zealand

Chapter 4

Comparative Study of Incremental Learning Algorithms in Multidimensional Outlier Detection on Data Stream
Simon Fong, University of Macau, Macau SAR
Dong Han, University of Macau, Macau SAR
Athanasios V. Vasilakos, Kuwait University, Kuwait

Section 2

Chapter 5

Advances of Applying Metaheuristics to Data Mining Techniques
Simon Fong, University of Macau, Macau SAR
Jinyan Li, University of Macau, Macau SAR
Athanasios V. Vasilakos, Kuwait University, Kuwait

Chapter 6

Artificial Immune Optimization Algorithm
Waseem Ahmad, International College of Auckland, New Zealand

Chapter 7

The Role of Hypermutation and Affinity Maturation in AIS Approaches to Clustering
Waseem Ahmad, International College of Auckland, New Zealand
Ajit Narayan, Auckland University of Technology, New Zealand

Chapter 8

Cancer Pathway Network Analysis Using Cellular Automata
Kalyan Mahata, Government College of Engineering and Leather Technology, India
Anasua Sarkar, Government College of Engineering and Leather Technology, India

Section 3

Chapter 9

Knowledge Extraction from Information System using Rough Computing
Debi Prasanna Achariya, VIT University, India

Chapter 10

Data Mining Techniques On Earthquake Data: Recent Data Mining Approaches
Negar Sadat Soleimani Zakeri, University of Tabriz, Iran
Saeid Pashazadeh, University of Tabriz, Iran

Chapter 11

An Evaluation of C4.5 and Fuzzy C4.5 with Effect of Pruning Methods
Tayyeba Naseer, University Institute of Information Technology, PMAS Arid Agriculture University, Pakistan
Sohail Asghar, COMSATS Institute of Information Technology, Pakistan

Chapter 12

An Empirical Evaluation of Feature Selection Methods
Mohsin Iqbal, University Institute of Information Technology, PMAS Arid Agriculture University, Pakistan
Saif Ur Rehman, University Institute of Information Technology, PMAS Arid Agriculture University, Pakistan
Saira Gillani, Corvinus University, Budapest, Hungary
Sohail Asghar, COMSATS Institute of Information Technology, Pakistan

Section 4

Chapter 13

Data mining driven rule based expert system for medical billing compliance: A Case Study
Umair Abdullah, Foundation University, Pakistan
Aftab Ahmed, Foundation University, Pakistan
Sohail Asghar, COMSATS Institute of Information Technology, Pakistan
Kashif Zafar, FAST National University, Pakistan

Chapter 14

A Web Backtracking Technique for Fraud Detection in Financial Applications
Tasawar Hussain, Abasyn University, Pakistan
Sohail Asghar, COMSATS Institute of Information Technology, Pakistan

Chapter 15

Segmentation of Crops and Weeds Using Supervised Learning Technique
Noureen Zafar, University Institute of Information Technology, PMAS Arid Agriculture University, Pakistan
Saif Ur Rehman, University Institute of Information Technology, PMAS Arid Agriculture University, Pakistan
Saira Gillani, Corvinus University, Budapest, Hungary
Sohail Asghar, COMSATS Institute of Information Technology, Pakistan

Chapter 16

A Supervised Learning Model for AGV Perception in Unstructured Environment
Muhammad Rizwan Aqeel, University Institute of Information Technology, PMAS Arid Agriculture University, Pakistan
Saif Ur Rehman, University Institute of Information Technology, PMAS Arid Agriculture University, Pakistan
Saira Gillani, Corvinus University, Budapest, Hungary
Sohail Asghar, COMSATS Institute of Information Technology, Pakistan

Muhammad Usman has completed his PhD in Computer & Information Sciences from Auckland University of Technology, New Zealand. He is currently an Assistant Professor of Computer Science in the department of Computing at Shaheed Zulfikar Ali Bhutto Institute of Science and Technology, Islamabad, Pakistan. His research interests include Data Mining, Data Warehousing, OLAP, Business Intelligence, and Knowledge discovery. He is currently researching in the novel methods and techniques for the seamless integration of Data Mining and Data Warehousing technologies. He has published in international journals and conference proceedings, and he has served as reviewer for a number of premier journals and conferences