
Contents

Acknowledgmentsix
Prefacexi
List of Contributorsxv

SECTION I DATA ANALYTICS CONCEPTS

1 An Introduction to Machine Learning.....3
MARK A. NORRIE
2 Regression for Data Analytics 33
M. SAIFUL BARI
3 Big Data-Appropriate Clustering via Stochastic Approximation
and Gaussian Mixture Models55
HIEN D. NGUYEN AND ANDREW THOMAS JONES
4 Information Retrieval Methods for Big Data Analytics on Text.....73
ABHAY KUMAR BHADANI AND ANKUR NARANG
5 Big Graph Analytics97
AHSANUR RAHMAN AND TAMANNA MOTAHAR

SECTION II DATA ANALYTICS TECHNIQUES

6 Transition from Relational Database to Big Data and Analytics..... 131
SANTOSHI KUMARI AND C. NARENDRA BABU
7 Big Graph Analytics: Techniques, Tools, Challenges,
and Applications..... 171
DHANANJAY KUMAR SINGH, PIJUSH KANTI DUTTA PRAMANIK,
AND PRASENJIT CHOUDHURY
8 Application of Game Theory for Big Data Analytics..... 199
MOHAMMAD MUHTADY MUHAISIN AND TASEEF RAHMAN

9	Project Management for Effective Data Analytics	219
	MUNIR AHMAD SAEED AND MOHIUDDIN AHMED	
10	Blockchain in the Era of Industry 4.0.....	235
	MD. MEHEDI HASSAN ONIK AND MOHIUDDIN AHMED	
11	Dark Data for Analytics	275
	ABID HASAN	

SECTION III DATA ANALYTICS APPLICATIONS

12	Big Data: Prospects and Applications in the Technical and Vocational Education and Training Sector	297
	MUTWALIBI NAMBOBI, MD. SHAHADAT HOSSAIN KHAN, AND ADAM A. ALLI	
13	Sports Analytics: Visualizing Basketball Records in Graphical Form.....	317
	MUYE JIANG, GERRY CHAN, AND ROBERT BIDDLE	
14	Analysis of Traffic Offenses in Transportation: Application of Big Data Analysis	343
	CHARITHA SUBHASHI JAYASEKARA, MALKA N. HALGAMUGE, ASMA NOOR, AND ATHER SAEED	
15	Intrusion Detection for Big Data	375
	BIOZID BOSTAMI AND MOHIUDDIN AHMED	
16	Health Care Security Analytics.....	403
	MOHIUDDIN AHMED AND ABU SALEH SHAH MOHAMMAD BARKAT ULLAH	
	Index	417