Intelligent Multidimensional Data Clustering and Analysis

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

Siddhartha Bhattacharyya (RCC Institute of Information Technology, India), Sourav De (The University of Burdwan, India), Indrajit Pan (RCC Institute of Information Technology, India) and Paramartha Dutta (Visva-Bharati University, India)

Description:

Data mining analysis techniques have undergone significant developments in recent years. This has led to improved uses throughout numerous functions and applications.

Intelligent Multidimensional Data Clustering and Analysis is an authoritative reference source for the latest scholarly research on the advantages and challenges presented by the use of cluster analysis techniques. Highlights theoretical foundations, computing paradigms, and real-world applications.

Readers:

This book is ideally designed for researchers, practitioners, upper-level students, and professionals interested in the latest developments in cluster analysis for large data sets.

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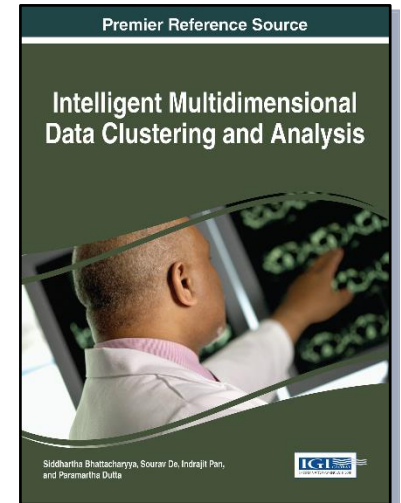
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About the Contributors

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Siddhartha Bhattacharyya did his Bachelors in Physics, Bachelors in Optics and Optoelectronics and Masters in Optics and Optoelectronics from University of Calcutta, India in 1995, 1998 and 2000 respectively. He completed PhD in Computer Science and Engineering from Jadavpur University, India in 2008. He is the recipient of the University Gold Medal from the University of Calcutta for his Masters. He is currently the Professor and Head of Information Technology of RCC Institute of Information Technology, Kolkata, India. In addition, he is serving as the Dean of Research and Development of the institute from November 2013. Prior to this, he was an Associate Professor of Information Technology of RCC Institute of Information Technology, Kolkata, India from 2011-2014. Before that, he served as an Assistant Professor in Computer Science and Information Technology of University Institute of Technology, The University of Burdwan, India from 2005-2011. He was a Lecturer in Information Technology of Kalyani Government Engineering College, India during 2001-2005. He is a co-author of 3 books and the co-editor of 4 books and has more than 135 research publications in international journals and conference proceedings to his credit. He has got a patent on intelligent colorimeter technology. He was the convener of the AICTE-IEEE National Conference on Computing and Communication Systems (CoCoSys-09) in 2009. He was the member of the Young Researchers' Committee of the WSC 2008 Online World Conference on Soft Computing in Industrial Applications. He has been the member of the organizing and technical program committees of several national and international conferences. He served as the Editor-In-Chief of *International Journal of Ambient Computing and Intelligence (IJACI)* published by IGI Global, Hershey, PA, USA from 17th July 2014 to 06th November 2014. He was the General Chair of the IEEE International Conference on Computational Intelligence and Communication Networks (ICCICN 2014) organized by the Department of Information Technology, RCC Institute of Information Technology, Kolkata in association with Machine Intelligence Research Labs, Gwalior and IEEE Young Professionals, Kolkata Section and held at Kolkata, India in 2014. He is the Associate Editor of International Journal of Pattern Recognition Research. He is the member of the editorial board of International Journal of Engineering, Science and Technology and ACCENTS Transactions on Information Security (ATIS). He is also the member of the editorial advisory board of *HETC Journal of Computer Engineering and Applications*. He is the Associate Editor of the *International Journal of BioInfo Soft Computing* since 2013. He is the Lead Guest Editor of the Special Issue on Hybrid Intelligent Techniques for Image Analysis and Understanding of Applied Soft Computing, Elsevier, B. V. He is the Lead Guest Editor of the Special Issue on Computational Intelligence and Communications in *International Journal of Computers and Applications (IJCA)*, Publisher: Taylor & Francis, UK in 2016. He is the Issue Editor of *International Journal of Pattern Recognition Research* since January 2016. He is the General Chair of the 2016 International Conference on Wireless Communications, Network Security and Signal Processing (WCNSSP2016) to be held during June 26-27, 2016 at Chiang Mai, Thailand. His research interests include soft computing, pattern recognition, multimedia data processing, hybrid intelligence and quantum computing. Dr. Bhattacharyya is a senior member of Institute of Electrical and Electronics Engineers (IEEE), USA and Association for Computing Machinery (ACM), USA. He is a member of International Rough Set Society and International Association for Engineers (IAENG), Hong Kong. He is a life member of Computer Society of India, Optical Society of India and Indian Society for Technical Education.

Sourav De did his Bachelors in Information Technology from The University of Burdwan, Burdwan, India in 2002. He did his Masters in Information Technology from West Bengal University of Technology, Kolkata, India in 2005. He completed PhD in Computer Science and Technology from Indian Institute of Engineering & Technology, Shibpur, Howrah, India in 2015. He is an Assistant Professor in the Department of Computer Science and Information Technology of University Institute of Technology, The University of Burdwan, Burdwan, India since 2006. He served as a Junior Programmer in Apices Consultancy Private Limited, Kolkata, India in 2005. He has more than about 20 research publications in internationally reputed journals, international edited books and international IEEE conferences. He served as reviewer in several International IEEE conferences and also in several international editorial books. He has been the member of the organizing and technical program committees of several national and international conferences. He has been invited in different seminars as an expert speaker. He is a co-author of a proposed book on soft computing. His research interests include soft computing, pattern recognition, image processing and data mining. Dr. De is a member of IEEE, ACM, Computer Science Teachers Association (CSTA) and IAENG, Hong Kong. He is a life member of ISTE, India.

Dr. Indrajit Pan has done his B.E. in Computer Science and Engineering with Honors from The University of Burdwan in 2005, M. Tech. in Information Technology from Bengal Engineering and Science University, Shibpur in 2009 and Ph.D. (Engg.) from Indian Institute of Engineering Science and Technology, Shibpur in 2015. He is the recipient of BESU, University Medal for securing First rank in M. Tech. (IT). He has couple of National and International level research publications and Book Chapters to his credit. He has attended several International Conferences, National level Faculty development programs, workshops and symposiums. Indrajit is a Member of Institute of Electrical and Electronics Engineers (IEEE), USA and Association for Computing Machinery (ACM), USA.

Dr. Paramartha Dutta did his Bachelors and Masters in Statistics from the Indian Statistical Institute, Calcutta in the years 1988 and 1990 respectively. He afterwards completed his Master of Technology in Computer science from the same Institute in the year 1993 and Doctor of Philosophy in Engineering from the Bengal Engineering and Science University, Shibpur in 2005 respectively. He has served in the capacity of research personnel in various projects funded by Govt. of India, which include DRDO, CSIR, Indian Statistical Institute, Calcutta etc. Dr. Dutta is now a Professor in the Department of Computer and system Sciences of the Visva Bharati University, West Bengal, India. Prior to this, he served Kalyani Government Engineering College and College of Engineering in West Bengal as full time faculty members. He has coauthored four books and has also one edited book to his credit. He has published about hundred twenty papers in various journals and conference proceedings, both international and national. Presently, he is supervising four students for their Ph. D program registered with Visva Bharati University and West Bengal University of Technology. Dr. Dutta is a Life Fellow of the Optical Society of India (OSI), Computer Society of India (CSI), Indian Science Congress Association (ISCA), Indian Society for Technical Education (ISTE), Indian Unit of Pattern Recognition and Artificial Intelligence (IUPRAI) - the Indian affiliate of the International Association for Pattern Recognition (IAPR), Senior Member of Associated Computing Machinery (ACM), IEEE Computer Society, USA and IACSIT.

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