

References

1. Abello A., Samos J., Saltor F., Understanding facts in a multidimensional Object-Oriented Model. In Proc. of the 4th Int. Workshop on Data warehousing and OLAP (DOLAP), pages 32-39, ACM Press, 2006.
2. Ahmad K.A., Syed Abdullah S.L., Othman M., Bakar M.N.A., Induction of Membership Functions and Fuzzy Rules for Harumanis Classification, Journal of Fundamental and Applied Sciences, ISSN 1112-9867, 2018 May 25.
3. Amro A.A., Abutabh M., Case Study: Comparison between Traditional Indexing and Column Store Indexes in SQL Server 2012, Conference: International Conference on Information & Intelligent Systems, Volume: N&N Global Technology for Computer and Information Service & IEEE Computational Intelligence Society, March 2013.
4. Arif M., A Survey on Data Warehouse Constructions, Process and Architectures, International Journal of u~ and e~ Service, Science, and Technology, Vol 8. No. 4, 2015, pp 9-16.
5. Ashraf, A., Akram, M., Sarwar M., "Type-II Fuzzy Decision Support System for Fertilizer", Punjab University College of Information Technology, University of Punjab, April 8, 2014.
6. Aouiche K., Darmont J., Index and Materialized View Selection in Data Warehouses, 2006.
7. Bahdi A., Chakhar S., Naiija Y., Implementing Imperfect Information in Fuzzy Databases, The International Symposium on Computational Intelligence and Intelligent Informatics, Hammamet, Tunisia, 2005.
8. Batra S., Sondal R., Data Warehouse, IJIRT, International Journal of Innovative Research in Technology, 2004, Volume 1 Issue 6, ISSN: 2349-6002
9. Bazile D., Le Page C., Dembélé S. & Abrami G., Perspectives of modelling the farmer's seed system for in situ conservation of sorghum varieties in Mali, 5th Conference of the European Federation for Information Technology in Agriculture, Food and Environment and 3rd World Congress on Computers in Agriculture and Natural Resources., 2005, Universidade de Trás-os-Montes e Alto Douro, Vila Real, Portugal.
10. Bennet A., Bennet D., Handbook on Decisions Support Systems, Springer-Verlag, Berlin, Heidelberg., 2008.
11. Bhargava, A.K., Singh. S.R., Bansal, D., "A Fuzzy Goal Programming Model for Bakery Production", International Journal of Computer & Mathematical Sciences, IJCMS, ISSN 2347 – 8527 Volume 3, Issue 4, June 2014.
12. Broek, P.V.D., Noppen, J., Rankings from Fuzzy Pairwise Comparisons, Faculty of Electrical Engineering, Mathematical and Computer Science, University of Twente, 2004.
13. Bouaziz B., Chakhar S., Mousseau V., Ram S., Telmoudi A., Database Design and Querying within the Fuzzy Semantic Model, Science Direct, Elsevier, 2007.

14. Buckles B.P., Petry E.F., A Fuzzy Representation of Data for Relational Databases, *Fuzzy Sets and Systems* 7, pp 213-226, North-Holland Publishing Company, 1982.
15. Burdick D., Deshpande P.M., Jayaram T.S., OLAP Over Uncertain and Imprecise Data, 31st VLDB Conference, Trondheim, Norway, 2005.
16. Chai K.L., Costello T.A., Wells B.R., Norman R.J., *App- eng-agric.*, 1994,10, 849-855.
17. Chavda M.B., Solanki A., Innovative banking products: Win-Win situation for Customers and Banks, *IRACST – International Journal of Commerce, Business and Management (IJCMB)*, ISSN: 2319–2828 Vol. 3, No.6, December 2014.
18. Chhabra R., Pahwa P., Data Mart Designing and Integration Approaches, *International Journal of Computer Science and Mobile Computing*, Vol. 3, Issue. 4, April 2014.
19. Coble H.D., Proceedings of the annual meeting of the Northeastern Weed Science Society, 1994, 48, 155-159.
20. Cooper, B. L., Watson, H.J., Wixom, B.H and Goodhue, D.L, “Data Warehousing supports Corporate strategy at First American Corporation”, *MIS Quarterly*, Minneapolis, vol.24, Issue 4, pp:547-567, 2000.
21. Dad R., Shanmugam N., Singh P., Nalawade S.M., Analysis of Agriculture Commodity Prices using MapReduce Model, *International Journal of Advanced Research in Computer and Communication Engineering* Vol. 4, Issue 4, April 2015, ISSN (Online) 2278-1021, ISSN (Print) 2319-5940.
22. Delgado M., Molina C., Sanchez D., Vila A., Rodriguez-Ariza L., A Fuzzy Multi-dimensional model for supporting imprecision in OLAP, 2004 IEEE international Conference on Fuzzy Systems, 3:1331 – 1336, 2004.
23. Dinesh Asanka, Loading Historical Data into a SQL Server Data Warehouse, *MSSQLTips*, <https://www.mssqltips.com/sqlservertip/5505/loading-historical-data-into-a-sql-server-data-warehouse/>, 2018-06-06, Accessed: 2018-07-01.
24. Detlefsen N.K., Jensen A.L., *Agricultural Systems*, 2004,81, 55-72.
25. Dogan U., "Data Warehouse and Data-Mining Tools for Risk Management: The Case of Turkey," *The International Bank for Reconstruction and Development / the World Bank*, Washington DC, 2011.
26. Dong W., Huang Z., Duan H., A genetic fuzzy system for unstable angina risk assessment, *Cardiology Department of Chinese PLA General Hospital, Beijing, China*, 2014.
27. Elliott, Thomas E., et al. "Data Warehouse Governance Programs in Healthcare Settings: A Literature Review and a Call to Action." *eGEMs (Generating Evidence & Methods to improve patient outcomes)* 1.1 (2013): 15.

28. Faisal D., Shahzad K., A Data Warehouse Model for Integrating Fuzzy Concepts in Meta Table Structures, Information Systems Research Group, Department of Informatics, University of Fribourg, Switzerland. 2009.
29. Faraghian H., Salehi S., Hekmatpanah M., An Evaluation to the Three-Layer ECRM&CRM Performance in Banking Sector in Order to Help Anti-Money Laundering Systems, International Journal of Information Science and Management, Special Issue, 2014.
30. Gadda K.R., Dey S., Business Intelligence for Public Sector Banks in India: A Case study- Design, Development, and Deployment. Journal of Finance, Accounting, and Management, 5(2), 37-58. ,2014.
31. Goel E., Data Warehousing and Data Mining in Business Applications, An International Journal of Engineering Sciences, Issue December 2014, Vol. 3, ISSN: 2229-6913 (Print), ISSN: 2320-0332 (Online).
32. Guo S.S., Yuan Z.M, Sun A.B., et al. A new ETL approach based on data virtualization. JOURNAL OF COMPUTER SCIENCE AND TECHNOLOGY 30(2): 311{323 Mar. 2015. DOI 10.1007/s11390-015-1524-3,
33. Hamoud A.K., Obaid T.A.S., Using OLAP with Diseases Registry Warehouse for Clinical Decision Support, International Journal of Computer Science and Mobile Computing, Vol.3 Issue.4, April- 2014, pg. 39-49.
34. Han J., Kamber M., Pei J., Data Mining Concepts and Techniques, Third Edition, Elsevier, 2012.
35. Hansen J.W., Agricultural Systems, 2002 74, 305-307.
36. Hongmei J.U., Wen L.U., The Application of Fuzzy Clustering Method in the Warehouse Performance Evaluation, International Business and Management Vol. 10, No. 1, 2015, pp. 44-49, ISSN 1923-841X [Print] ISSN 1923-8428 [Online],
37. Huynh V.N., Ho T.B., Nakamori Y., A Parametric Representation of linguistic Hedges in Zadeh's Fuzzy Logic, International Journal of Approximate Reasoning, 2002, Elsevier.
38. Ibragimov T.Z., Ibragimova I.T., Sanin S.S., Decision support systems for cereal crop disease control, 2005, EFITA/WCCA, Vila Real, Portugal.
39. Inmon, W.H., "What is a Data Warehouse?" Prism, Volume 1, Number 1, 1995.
40. Juliyet C., Amanullah K.M., Optimizing Query Performance with OLAP to Discovering the Diagnosis of Diabetes, International Journal of Computer Science and Mobile Computing, Vol.4 Issue.7, July- 2015, pg. 290-298.
41. Jørgensen L.N., Noe E., Langvad A.M., Jensen J.E., Ørum J. E., Rydahl P., EPPO Bulletin, 2007, 37(2), 374-377.

42. Kasinadh D.P.V., Radha Krishna P., Building Fuzzy OLAP Using Multi-attribute Summarization, International Conference on Computational Intelligence and Multimedia Applications, 2007.
43. Khan M.A., Uddin M. F., Gupta N., Seven V's of Big Data, Understanding Big Data to extract Value, Proceedings of 2014 Zone 1 Conference of the American Society for Engineering Education (ASEE Zone 1), 978-1-4799-5233-5/14, 2014, International Electrical and Electronics Engineers.
44. Kimball, R., Ross M., The Data Warehouse Toolkit, Second Edition, The Complete Guide to Dimensional Modeling, John Wiley & Sons, Inc, 2007.
45. Kimball, R., Ross M., The Data Warehouse Toolkit, Third Edition, The Complete Guide to Dimensional Modeling, John Wiley & Sons, Inc, 2007.
46. Kohli A., Raina A., An Overview of Data Warehousing and OLAP Technology, IJIRT, International Journal of Innovative Research in Technology., Volume 1 Issue 6, ISSN: 2349-6002.
47. Kseniya L., Pollution Management Discussion Note: In focus, 1999, 3.
48. Kumar S., Aspect of Data Mining and Data Warehousing, International Journal of Technology Enhancements and Emerging Engineering Research, Vol 2, Issue 6, 2014, ISSN 2347-4289.
49. Ma Z.M., Yan L., A Literature Overview of Fuzzy Database Models, Journal of Information Science and Engineering, 189-202, 2008.
50. Mamdani E.H., Application of Fuzzy Logic to Approximate Reasoning Using Linguistic Synthesis, Department of Electrical and Electronic Engineering, University of London, London, 1976.
51. Matthews K., Buchan K., Proceedings of the Modelling and Simulation Society of Australian and New Zealand, 2003, 4, 1534- 1539.
52. Medina J.M., Vila M.A., Cubero J.C., Pons O., Towards the Implementation of Fuzzy Relational Database Model, Fuzzy Sets and Systems, ELSEVIER, 273-289., 1994.
53. Meinke H., Baethgen W.E., Carberry P.S. Donatelli M., Hammer G.L., Selvaraju R. & Stockle C.O., Agricultural Systems, 2001, 70, 493-513.
54. Mendis, D.S.K., Karunananda, A.S., Samaratunga, U., Ratnayake U., A Fuzzy Expert System for Business Intelligence, 10th International Conference on Business Management, 2013.
55. Mosseddaq F., Dnidane S., Lahlou M., Integrated Wheat N Nutrition Management in Morocco: A Decision Support Model, Progress of Information Technology in Agriculture Proceedings of the 4th International Symposium on Intelligent Information Technology in Agriculture (ISIITA). 2007.
56. Notched Box Plots, <https://sites.google.com/site/davidsstatistics/home/notched-box-plots>, Accessed On 2016-August-28.

57. Obunadike G.N., Umeh A., Leveraging Data Mining and Data Warehouse to Improve Prison Services and Operations in Nigeria, *Information and Knowledge Management*, www.iiste.org, ISSN 2224-5758 (Paper), ISSN 2224-896X (Online) Vol.4, No.5, 2014.
58. Olszak C., Ziemba E., Approach to Building and Implementing Business Intelligence Systems, *Interdisciplinary Journal of Information, Knowledge, and Management*, 2007, Vol 2, pp. 135-148.
59. Paramasivan C., Naidu V.K., Electronic Banking Services in India, *SELP Journal of Social Science*, ISSN: 0975-9999 (P) 2349-1655 (O) Vol. VI, Issue. 23, 2015.
60. Pavan Kumar K.V.N.N, Radha Krishna, Supriya Kumar, Fuzzy OLAP Cube for Qualitative Analysis, *ICISIP*, 2005.
61. Riberir R.P., Borges J.G., MetaForest- a web-based decision system to support forest management involving multiple-ownership, *EFITA/WCCA*, 2005, Vila Real, Portugal.
62. Sabounchi N.S.Z., Triantis K., Sarangi S., Liu S., Fuzzy Modeling of Linguistic Variables in a System Dynamics Context, *Grado Department of Industrial and Systems Engineering*, Virginia Tech, Falls Church, VA, 22043, USA, 2010.
63. Samuel A., Pandey A.K., Sharma V.K., Estimation of Functional Size of a Data Warehouse System using COSMIC FSM Method, *ACEEE, Procedure of Internal Conference on Advances in Computer Science and Application*, 2013.
64. Sapir L., Shmilovic A., A Method for Design of a Fuzzy Data Warehouse, *Department of Information Systems Engineering*, Ben-Gurion University, Israel, 2008.
65. Sapna S., Pravin K., Integration of Fuzzy Clustering Technique with Big Data for Disease Diagnosis, *International Journal of Electrical, Computing Engineering and Communication (IJECC)* Vol. 1, Issue. 3, June – 2015 ISSN (Online): 2394-8310.
66. Sedlak O., Cileg M., KisT., Ciric Z., Measures of Uncertainty in Decision Making, *International Seminar on Operational Research on Operational Research*, 2013.
67. Sindhujaa N., Anees M., Patra P.S.K., Recent Issues and Its Quick Fixes for Various Data Repositories, *International Journal of Research in Computer and Communication Technology*, Vol 3, Issue 4, April- 2014, ISSN (Online) 2278- 5841, ISSN (Print) 2320-5156.
68. Shim J.P., Warkentin M., Courtney J.F., Power D.J., Sharda R. & Carlsson C., *Decision Support Systems*, 2002, 111-126.
69. Sodtke R., *Multifunctional of Landscapes - Analysis, Evaluation, and Decision Support*, *International Conference*, Univ. Giessen, 2005, 193.
70. Suarez de Cepeda M., Recio B., Rubio F., *Decision Support System for Farm Mechanization*, 5th Conference of the European Federation for Information Technology in Agriculture, Food and Environment and 3rd World Congress on Computers in Agriculture and Natural Resources, 2005, Vila Real, Portugal.

71. Tremblay M.C., "Doing more with more information: Changing healthcare planning with OLAP tools," *Decision Support Systems*, vol. 43, pp. 1305-1320, 2007.
72. Tomaszewska L., "The application of horizontal membership functions to fuzzy arithmetic operations", *Journal of Theoretical and Applied Computer Science*, Vol 8, No2 2014, pp 3-10.
73. Van der Aalst, *Process Cubes: Slicing, Dicing, Rolling Up and Drilling Down Event Data for Process Mining*, 2013.
74. Van Heeringen, H., Measuring the functional size of a data warehouse application using the COSMIC FFP method, *Software Measurement European Forum Conference*, Rome, Italy, May 2006.
75. Vassiliadis P., Simitsis A., *Near Real-Time ETL**, University of Ioannina, Ben-Gurion University, Israel, 2008.
76. Vassiliadis P., *Modeling Multidimensional Databases, Cubes and Cube Operations*, National Technical University of Athens, 1998.
77. Wang Y.C., Chien C.J., Wang C.H., A Fuzzy-Neural Adaptive Iterative Learning Control for Freeway Traffic Flow Systems, *Proceedings of the International MultiConference of Engineers and Computer Scientists 2016 Vol I, IMECS 2016*, March 16 - 18, 2016, Hong Kong.
78. Wang Q., Wang Y., Zhang H., Sun Y., Load Forecasting Research of Power System Based on Fuzzy Sets Algorithm, *International Journal of Signal Processing, Image Processing and Pattern Recognition* Vol.9, No.6, 2016, pp.283-292, ISSN: 2005-4254.
79. Weippl E.R., *Security in Data Warehouses*, retrieved https://www.sba-research.org/wp-content/uploads/publications/weippl_arh_securityDWH.pdf, Accessed on 2018-08-12
80. Yadav DK, Yadav HB. Developing membership functions and fuzzy rules from numerical data for decision making. In *16th World Congress of the International Fuzzy Systems Association and 9th Conference of the European Society for Fuzzy Logic and Technology*, 2015, pp. 551-555.
81. Zaker M., Phon-Amnuaisuk S., Haw S.C., Optimizing the Data Warehouse Design by Hierarchical De-normalizing, *Proceedings of the 8th WSEAS International Conference on Applied Computer Science, ACS 08*, Faculty of Information Technology, Multimedia University, Malaysia, 2008, ISSN: 1790-5109, ISBN: 978-960-474-028-4.
82. Zeng W., Li J., *Fuzzy Logic and Its Application in Football Team Ranking*, Hindawi Publishing Cooperation, *The Scientific World Journal*, Volume 2014, Article ID 291650, 6 pages.
83. Zhao J., Bose B.K., Evaluation of Membership Functions for Fuzzy Logic Controlled Induction Motor Drive, *IEEE*, 2002.
84. Zhong, W. et al, A Framework of Applying BI to Social Security Systems. *Proceeding of the International Conference and Automation*, 2008, pp. 189-193.

85. Ling Feng, Dillion D.T., Using Fuzzy Linguistic Representations to Provide Explanatory Semantics for Data Warehouses, *IEEE Transactions on Knowledge and Data Engineering*, Vol. 15, No 1, January/February 2003.
86. A. Gegov, R Babushka, H.B. Verbruggen, Linguistic Analysis of Interactions in MIMO Fuzzy Systems, 14th Triennial World Congress, Beijing, China, 1999.
87. PPG Dinesh Asanka, Data Cleansing with SSIS, retrieved <http://www.sql-server-performance.com/2007/data-cleaning-ssis/>, SQL-Server-Performance.com, Accessed: 2018-12-04.
88. Microsoft SQL Server 2016 Technical Overview, retrieved <https://www.microsoft.com/en-us/sql-server/sql-server-2016>, Accessed: 2018-12-04.
89. The R Project for Statistical Computing, retrieved <https://www.r-project.org/>, Accessed: 2018-12-04.
90. MatLab, retrieved <https://www.mathworks.com/products/matlab.html/>, Accessed: 2018-12-04.
91. D. Mankad, P. Dholakia, The Study on Data Warehouse Design and Usage, *International Journal of Scientific and Research Publications*, Volume 3, Issue 3, March 2013, ISSN 2250-3153.
92. Challoumis, Constantinos, Binary Fields and Economics through Fuzzy Logic Approach and Boolean Algebra Using Multidimensional Processing with Respect to Artificial Neural Networks and Machine Learning (June 30, 2016). Available at SSRN: <https://ssrn.com/abstract=3123275>.
93. Witold Pedrycz., Fernando Gomide., An Introduction to Fuzzy Sets, Analysis and Design., Massachusetts Institute of Technology., 1998.
94. Ross T.J., Fuzzy Logic with Engineering Applications, Third Edition, 2010 John Wiley & Sons, Ltd. ISBN: 978-0-470-74376-8.
95. G. Garani, A. Chernov, I. Savvas and M. Butakova, "A Data Warehouse Approach for Business Intelligence," 2019 IEEE 28th International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE), Napoli, Italy, 2019, pp. 70-75, doi: 10.1109/WETICE.2019.00022.
96. Ruilian Hou, "Research and analysis of data warehouse technologies," Proceedings of 2011 International Conference on Computer Science and Network Technology, Harbin, China, 2011, pp. 1919-1922, doi: 10.1109/ICCSNT.2011.6182345.
97. N. El Moukhi, I. El Azami and A. Mouloudi, "Data warehouse state of the art and future challenges," 2015 International Conference on Cloud Technologies and Applications (CloudTech), Marrakech, Morocco, 2015, pp. 1-6, doi: 10.1109/CloudTech.2015.7337004.

98. N. El Moukhi, I. El Azami and A. Mouloudi, "Data warehouse state of the art and future challenges," 2015 International Conference on Cloud Technologies and Applications (CloudTech), Marrakech, Morocco, 2015, pp. 1-6, doi: 10.1109/CloudTech.2015.7337004.
99. H. Qin, Z. Qian and Y. Zhao, "On the Research of Data Warehouse in Big Data," 2015 International Conference on Network and Information Systems for Computers, Wuhan, China, 2015, pp. 354-357, doi: 10.1109/ICNISC.2015.126.
100. O. Moscoso-Zea, J. Paredes-Gualtor and S. Luján-Mora, "A Holistic View of Data Warehousing in Education," in IEEE Access, vol. 6, pp. 64659-64673, 2018, doi: 10.1109/ACCESS.2018.2876753.
101. U. Aftab and G. F. Siddiqui, "Big Data Augmentation with Data Warehouse: A Survey," 2018 IEEE International Conference on Big Data (Big Data), Seattle, WA, USA, 2018, pp. 2785-2794, doi: 10.1109/BigData.2018.8622206.
102. L. Sapir, A. Shmilovici and L. Rokach, "A methodology for the design of a fuzzy data warehouse," 2008 4th International IEEE Conference Intelligent Systems, Varna, Bulgaria, 2008, pp. 2-14-2-21, doi: 10.1109/IS.2008.4670400.
103. Wensveen, S. A. G., Constructive design research. Technische Universiteit Eindhoven, 2018, Presented on October 19, 2018 at Eindhoven University of Technology.