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Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Abdi, H., 2007, Multiple Correlation Coefficient, in *Encyclopedia of Measurement and Statistics*, Sage, Thousand Oaks, CA, USA, pp. 648–651.

Adhikary, T., Das, A.K., Razzaque, M.A., and Sarkar, A. M.J., 2013, Energy-Efficient Scheduling Algorithms for Data Center Resources in Cloud Computing, *Proc. IEEE 10th Int. Conf. on High Performance Computing and Communications & Embedded and Ubiquitous Computing*,Zhangjiajie, 13-15 Nov. 2013, pp. 1715–1720.

Akiyama, S., Hirofuchi, T., Takano, R., and Honiden, S., 2012, MiyakoDori: A Memory Reusing Mechanism for Dynamic VM Consolidation, *2012 IEEE Fifth International Conference on Cloud Computing*, 24 Jun. 2012, Honolulu, HI, pp. 606–613.

Akoush, S., Sohan, R., Rice, A., Moore, A.W., and Hopper, A., 2010, Predicting the Performance of Virtual Machine Migration, *2010 IEEE International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems*,17-19 Aug. 2010, Miami Beach, FL, pp. 27-46.

Alnowiser, A., Aldhahri, E., Alahmadi, A., and Zhu, M.M., 2014, Enhanced Weighted Round Robin (EWRR) with DVFS Technology in Cloud Energy-Aware, *2014 International Conference on Computational Science and Computational Intelligence. IEEE*, 10-13 March 2014, Las Vegas, NV, pp. 320–326.

Arthi, T., Shahul Hamead, H., 2013, Energy Aware Cloud Service Provisioning Approach For Green Computing Environment, *2013 International Conference on Energy Efficient Technologies for Sustainability, ICEETS 2013*,10-12 April 2013, Nagercoil, pp. 139–144.

ASHRAE, 2011. *Thermal Guidelines for Data Processing Environments – Expanded Data Center Classes and Usage Guidance*, American Society of Heating, Refrigerating and Air-Conditioning Engineers.

Barham, P., Dragovic, B., Fraser, K., Hand, S., Harris, T., Ho, A., Neugebauer, R., Pratt, I., and Warfield, A., 2003, Xen and The Art of Virtualization Categories and Subject Descriptors, *Symposiumon Operating Systems Principles ACM*,19-22 October 2003, Bolton Landing, New York, USA, pp. 164-177.

Barroso, L., and Hölzle, U., 2007, The Case for Energy-Proportional Computing, *IEEE on Computer*,*40*, 17 Dec. 2007, pp. 33–37.

Beloglazov, A., 2013, Energy-Efficient Management of Virtual Machines in Data Centers for Cloud Computing, *Disertation*, Department of Computing and Information Systems, Melbourne University.

Beloglazov, A., Abawajy, J., and Buyya, R., 2012a, Energy-Aware Resource Allocation Heuristics for Efficient Management of Data Centers for Cloud

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
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Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

Computing, *Future Generation Computer Systems*, *28*, May 2012, pp. 755–768.

Beloglazov, A., Buyya, R., 2013, Managing Overloaded Hosts for Dynamic Consolidation of Virtual Machines in Cloud Data Centers under Quality of Service Constraints, *IEEE Transactions on Parallel and Distributed Systems*, *24*,15 August 2012, pp. 1366–1379.

Beloglazov, A., Buyya, R., 2010a, Adaptive Threshold-Based Approach for Energy-Efficient Consolidation of Virtual Machines in Cloud Data Centers, *Proceedings of the 8th International Workshop on Middleware for Grids, Clouds and E-Science*, *4*,29 November-3 December 2010, Bangalore, India.

Beloglazov, A., Buyya, R., 2010b, Energy Efficient Allocation of Virtual Machines in Cloud Data Centers, *2010 10th IEEE/ACM International Conference on Cluster, Cloud and Grid Computing*, 17-20 May 2010, Melbourne, Australia, pp. 577–578.

Beloglazov, A., Buyya, R., Lee, Y.C., and Zomaya, A., 2012b, Optimal Online Deterministic Algorithms and Adaptive Heuristics for Energy and Performance Efficient Dynamic Consolidation of Virtual Machines in Cloud Data Centers, *Concurrency Computat.: Pract. Exper. 2012; 24*, pp. 1397–1420.

Beloglazov, A., Buyya, R., Lee, Y.C., and Zomaya2, A., 2011, A Taxonomy and Survey of Energy-Efficient Data Centers and Cloud Computing Systems, *Advances in Computers, Elsevier*, *82*, pp. 47–111.

Bhuiyan, M.F.H., Wang, C., 2013, Energy-Efficient Virtual Machine Management in Heterogeneous Environment: Challenges, Approaches and Opportunities, *Proceedings - 2013 IEEE International Conference on Systems, Man, and Cybernetics, SMC 2013*, 13-16 Oct. 2013, Manchester, pp. 4116–4121.

Birkhoff, G., Neumann, V., 1936, The Logic of Quantum Machanics, *Annals of Mathematics, Second Series*, Vol. 37, No. 4, Oct., 1936, pp. 823-843

Blackburn, M., 2008, Five Ways to Reduce Data Center Server Power Consumption, *The Green Grid*, pp. 1–11.

Bock, H., 2007, Clustering Methods: A History of K-Means Algorithms, *Selected Contributions In Data Analysis and Classification, Springer Berlin Heidelberg*,pp. 161–172.

Brown, R., others, 2008, Report to congress on server and data center energy efficiency: Public law 109-431, *Lawrence Berkeley National Laboratory*, 13 Jun 2008.

Buyya, R., Beloglazov, A., and Abawajy, J., 2010, Energy-Efficient Management of Data Center Resources for Cloud Computing : A Vision, Architectural Elements, and Open Challenges Cloud Computing and Distributed Systems (CLOUDS), *Laboratory Department of Computer Science and Software Engineering*,2 Jun 2010.

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
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Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

Buyya, R., Yeo, C.S., Venugopal, S., Broberg, J., and Brandic, I., 2009, Cloud Computing and Emerging IT Platforms: Vision, Hype, and Reality for Delivering Computing as The 5th Utility, *Future Generation Computer Systems, 25*,pp. 599-616.

Caglar, F., Shekhar, S., and Gokhale, A., 2014, iPlace: An Intelligent and Tunable Power- and Performance-Aware Virtual Machine Placement Technique for Cloud-Based Real-Time Applications, *17th International Symposium on Object/Component/Service-Oriented Real-Time Distributed Computing, IEEE,* 10-12 June 2014,Reno, NV, pp. 48–55.

Calheiros, R.N., Ranjan, R., Beloglazov, A., De Rose, C.A.F., and Buyya, R., 2011, CloudSim: A Toolkit for Modeling and Simulation of Cloud Computing Environments and Evaluation of Resource Provisioning Algorithms, *Softw. Pract. Exper., Wiley Press,* New York, USA 41, 23–50.

Cao, Z., Dong, S., 2014, An Energy-Aware Heuristic Framework for Virtual Machine Consolidation in Cloud Computing, *The Journal of Supercomputing, 69*, Jul 2014, pp. 429–451.

Cardosa, M., Korupolu, M.R., and Singh, A., 2009, Shares and Utilities Based Power Consolidation in Virtualized Server Environments, *2009 IFIP/IEEE International Symposium on Integrated Network Management, IM 2009,* 1-5 June 2009, Long Island, NY, pp. 327–334.

Celebi, M.E., Kingravi, H., and Vela, P., 2013, A Comparative Study of Efficient Initialization Methods for The K-means Clustering Algorithm, *Expert Systems with Applications, 40,* pp. 200–210.

Cerroni, W., 2014, Multiple Virtual Machine Live Migration in Federated Cloud Systems, *Computer Communications Workshops (INFOCOM WKSHPS), 2014 IEEE Conference,* April 27 2014-May 2 2014, Toronto, ON, pp. 25–30.

Chase, J.S., Anderson, D.C., Thakar, P.N., Vahdat, A.M., and Doyle, R.P., 2001, Managing Energy and Server Resources in Hosting Centers, *ACM SIGOPS Operating Systems Review, 35,*Dec. 2001, New York, NY, USA, pp. 103-116

Chen, G., He, W., Liu, J., Nath, S., Rigas, L., Xiao, L., and Zhao, F., 2008, Energy-Aware Server Provisioning and Load Dispatching for Connection-Intensive Internet Services, *Proceedings of the 5th USENIX Symposium on Networked Systems Design and Implementation, NSDI'08, USENIX Association,*16 April 2008, Berkeley, CA, USA, pp. 337–350.

Chiaraviglio, L., Matta, I., 2010, GreenCoop: Cooperative Green Routing with Energy-Efficient Servers, *1st ACM International Conference on Energy-Efficient Computing and Networking (e-Energy 2010),* 13 April 2010, Passau, Germany, pp. 191– 194.

Chowdhury, M.R., Mahmud, M.R., and Rahman, R.M., 2015, Study and Performance Analysis of Various VM Placement Strategies, *Software*

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
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Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD), 2015 16th IEEE/ACIS International Conference, IEEE, 1-3 June 2015, Takamatsu, pp. 1–6.

Cleveland, W.S., 1993, Visualizing data. *Hobart Press*.

Cleveland, W.S., Loader, C., 1996, Smoothing by Local Regression: Principles and Methods, *Statistical Theory and Computational Aspects of Smoothing, Springer, Proceedings of the COMPSTAT '94 Satellite Meeting held in Semmering*, Austria, Physica-Verlag HD, pp. 10–49.

Demšar, J., 2006. Statistical Comparisons of Classifiers over Multiple Data Sets. *Journal of Machine Learning Research* 7, 1–30.

Deng, K., Kong, L., Song, J., Ren, K., and Yuan, D., 2011, A Weighted K-means Clustering Based Co-Scheduling Strategy Towards Efficient Execution of Scientific Workflows in Collaborative Cloud Environments, *Proceedings - IEEE 9th International Conference on Dependable, Autonomic and Secure Computing, DASC 2011*, 12-14 Dec. 2011, Sydney, NSW, pp. 547–554.

Elhabbash, A.H., 2010, Enhanced k-means Clustering Algorithm, *Thesis*, Dept. Computer Science, Islamic University of Gaza.

Elnozahy, E.. (Montax), Kistler, M., and Rajamony, R., 2003, Energy-Efficient Server Cluster, *Power-Aware Computer Systems*, 2 Feb 2002, pp. 179–197.

Esteves, R.M., Pais, R., and Rong, C., 2011, K-means Clustering In the Cloud - A Mahout Test, *Proceedings - 25th IEEE International Conference on Advanced Information Networking and Applications Workshops, WAINA 2011*, 22-25 March 2011, Biopolis, pp. 514–519.

Fan, X., Weber, W.-D., and Barroso, L.A., 2007. Power Provisioning for A Warehouse-Sized Computer, *ACM SIGARCH Computer Architecture News, 35*, 9 Jun 2007, New York, NY, USA, pp. 13–23.

Farahnakian, F., Liljeberg, P., and Plosila, J., 2013, LiRCUP: Linear Regression Based CPU Usage Prediction Algorithm for Live Migration of Virtual Machines in Data Centers, *2013 39th Euromicro Conference on Software Engineering and Advanced Applications,* 4-6 Sept. 2013, Santander, pp. 357–364.

Feitelson, D., 2015, Workload Modeling for Computer Systems Performance Evaluation, *Cambridge University Press*.

Feller, E., Morin, C., and Esnault, A., 2012a, A Case for Fully Decentralized Dynamic VM Consolidation in Clouds, *In: Cloud Computing Technology and Science (CloudCom), 2012 IEEE 4th International Conference*, 3-6 Dec. 2012, Taipei, pp. 26–33.

Feller, E., Rohr, C., Margery, D., and Morin, C., 2012b, Energy Management in IaaS Clouds: A Holistic Approach, *2012 IEEE Fifth International Conference on Cloud Computing,*24-29 June 2012, Honolulu, HI, pp. 204–212.

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
GURUH FAJAR SHIDIK, Azhari; Khabib Mustofa
Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

Finch, P.D., 1969, On the Structural of Quantum Logic. *Journal of Symbolic Logic, 34,*pp. 275--282.

Fu, X., Zhou, C., 2015, Virtual Machine Selection and Placement for Dynamic Consolidation in Cloud Computing Environment, *Frontiers of Computer Science, Higher Education Press, 9,*April 2015, pp. 322–330.

Gandhi, A., Harchol-balter, and M., Lefurgy, C., 2009, Optimal Power Allocation in Server Farms, *Proceedings of the 11th International Joint Conference on Measurement and Modeling of Computer Systems,*15 Jun. 2009, New York, NY, USA, pp. 157–168.

Garg, S.K., Buyya, R., 2013, An Environment for Modeling and Simulation of Message-Passing Parallel Applications for Cloud Computing, *Software - Practice and Experience, 43,*1 Nov. 2013, pp. 1359–1375.

Garg, S.K., Shin, C., Anandasivam, A., and Buyya, R., 2011, Environment-Conscious Scheduling of HPC Applications on Distributed Cloud-Oriented Data Centers, *J Parallel Distrib Comput, 71,*30 Jun 2011, pp. 732–749.

Gartner, 2007, Gartner Estimates ICT Industry Accounts for 2 Percent of Global CO2 Emissions, *Gartner Symposium / IT Expo*.

Germano, G., Maggiolo-Schettini, A., and Schettini, A.M., 1977, A Language for Markov's Algorithms Composition, *Acta Cybernetica, 3,*pp. 31–35.

Germano, G., Maggio-Schettini, A., 1973, A Flow Diagram Composition of Markov's Normal Algorithms Without Concluding Formulas, *BIT Numerical Mathematics, 13*, August 1973, pp. 301–312.

Ghribi, C., Hadji, M., and Zeghlache, D., 2013, Energy Efficient VM Scheduling for Cloud Data Centers: Exact Allocation and Migration Algorithms, *2013 13th IEEE/ACM International Symposium on Cluster, Cloud, and Grid Computing*, 13-16 May 2013, Delft, pp. 671–678.

Gmach, D., Rolia, J., Cherkasova, L., and Kemper, A., 2009, Resource Pool Management: Reactive Versus Proactive or Let's be Friends, *Computer Networks, 53,* 3 Dec. 2009, pp. 2905–2922.

Gong, L., Xie, J., Li, X., and Deng, B., 2013, Study on Energy Saving Strategy and Evaluation Method of Green Cloud Computing System, *in: Industrial Electronics and Applications (ICIEA)*, 19-21 June 2013, Melbourne, VIC, pp. 483–488.

Gulati, A., Holler, A., Ji, M., Shanmuganathan, G., Waldspurger, C., and Zhu, X., 2012, VMware Distributed Resource Management: Design, Implementation, and Lessons Learned, *VMware Technical Journal, 1*, Mar. 2012, pp. 45–64.

Gunson, J., 1967, On the Algebraic Structure of Quantum Mechanics, *Commun Math Phys, 6,* 1 Dec. 1967, pp. 262-285.

Gupta, a., Kale, L. V., Milojicic, D., Faraboschi, P., and Balle, S.M., 2013, HPC-Aware VM Placement in Infrastructure Clouds, *2013 IEEE International*

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
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Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

Conference on Cloud Engineering (IC2E), 25-27 March 2013, Redwood City, CA, pp. 11–20.

Gupta, M., Singh, S., 2003, Greening of The Internet, *in: ACM SIGCOMM*, 25 Aug 2003,New York, NY, USA, pp. 19–26.

Hameed, A., Khoshkbarforoushha, A., Ranjan, R., Jayaraman, P.P., Kolodziej, J., Balaji, P., Zeadally, S., Malluhi, Q.M., Tziritas, N., Vishnu, A., Khan, S.U., and Zomaya, A., 2014, A Survey and Taxonomy on Energy Efficient Resource Allocation Techniques for Cloud Computing Systems, *Computing*, 6 Jun 2014, pp. 1-24

Herbert, J., 2013, Energy Efficient VM Placement Supported by Data Analytic Service, *2013 13th IEEE/ACM International Symposium on Cluster, Cloud, and Grid Computing*, 13-16 May 2013, Delft, pp. 648–655.

Hongyou, L., Jiangyong, W., 2013, Energy-Aware Scheduling Scheme Using Workload-Aware Consolidation Technique in Cloud Data Centres, *Communications, 10*, Dec. 2013, China, pp. 114–124.

Huang, Q., Gao, F., Wang, R., and Qi, Z., 2011, Power Consumption of Virtual Machine Live Migration in Clouds, *2011 Third International Conference on Communications and Mobile Computing*,18-20 April 2011, Qingdao, pp. 122–125.

Huang, Q., Su, S., Li, J., Xu, P., Shuang, K., and Huang, X., 2012, Enhanced Energy-Efficient Scheduling for Parallel Applications in Cloud, *2012 12th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (ccgrid 2012)*, 13-16 May 2012, Ottawa, ON, pp. 781–786.

Huber, P.J., 2011, Robust statistics, *Springer Berlin Heidelberg*, pp. 1248-1251.

Inturu, L.P., Prasahanti, G., and Rajan, E.G., 2012, Normal Algorithmic Signal Processing, *in: International Conference on Computing Science ICCS*, 14-15 Sept. 2012, Phagwara, pp. 31–36.

Jain, A.K., 2010, Data Clustering : 50 Years Beyond K-means, *Pattern Recognition Letters, 31*, pp. 651–666.

Jheng, J., Tseng, F., Chao, H., and Chou, L., 2014, A Novel VM Workload Prediction using Grey Forecasting Model in Cloud Data Center, *in: International Conerence in Information Networking (ICOIN), IEEE*, 10-12 Feb. 2014, Phuket, pp. 40–45.

Jiang, C., Xu, X., Zhang, J., Li, Y., and Wan, J., 2011, Resource Allocation in Contending Virtualized Environments through VM Performance Modeling and Feedback, *2011 Sixth Annual Chinagrid Conference*,22-23 Aug. 2011, Liaoning, pp. 196–203.

Jiang, C., Zhang, J., Wan, J., Xu, X., Yin, Y., Yu, R., and Lv, C., 2010, Power Aware Resource Allocation in Virtualized Environments through VM Behavior Identification, *2010 IEEE/ACM Int'l Conference on Green Computing and Communications & Int'l Conference on Cyber, Physical and Social Computing*, 18-20 Dec. 2010, Hangzhou, pp. 313–318.

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
GURUH FAJAR SHIDIK, Azhari; Khabib Mustofa
Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

John E. Savage, 1997, Models of Computation: Exploring the Power of Computation, *Addison-Wesley Longman Publishing.CO.Inc*,Boston, MA, USA.

Kantarci, B., Foschini, L., Corradi, A., and Mouftah, H.T., 2012, Inter-and-Intra Data Center VM-Placement for Energy-Efficient Large-Scale Cloud Systems, *2012 IEEE Globecom Workshops*, 3-7 Dec. 2012, Anaheim, CA, pp. 708–713.

Katzenelson, J., 1972, The Markov Algorithm As A Language Parser—Linear Bounds, *Journal of Computer and System Sciences, 6,*October 1972, pp. 465–478.

Keller, G., Tighe, M., Lutfiyya, H., and Bauer, M., 2012, An Analysis of First Fit Heuristics For the Virtual Machine Relocation Problem, *in: Network and Service Management (CNSM), 2012 8th International Conference and 2012 Workshop on Systems Virtualiztion Management (SVM),* 22-26 Oct. 2012, Las Vegas, NV, pp. 406–413.

Kim, J., Ruggiero, M., 2013, Correlation-Aware Virtual Machine Allocation For Energy-Efficient Datacenters, *Design, Automation & Test in Europe Conference & Exhibition (DATE), 2013,* 18-22 March 2013, Grenoble, France, pp. 1345 - 1350.

Kim, Y.H., Ahn, S.C., and Kwon, W.H., 2000, Computational Complexity of General Fuzzy Logic Control and Its Simplification For A Loop Controller, *Fuzzy Sets and Systems, 111,* Elsevier North-Holland, Inc. Amsterdam, The Netherlands, pp. 215–224.

Kliazovich, D., Bouvry, P., and Khan, S.U., 2012, GreenCloud: A Packet-Level Simulator of Energy-Aware Cloud Computing Data Centers, *Journal of Supercomputing, 62,* December 2012, pp. 1263–1283.

Koomey, J.G., 2011, Growth in Data Center Electricity use 2005 to 2010, *Analytics Press*, 1 Agustus 2011.

Kord, N., Haghighi, H., 2013, An Energy-Efficient Approach for Virtual Machine Placement in Cloud Based Data Centers, *The 5th Conference on Information and Knowledge Technology,* 28-30 May 2013, Shiraz, pp. 44–49.

Koseoglu, M., Karasan, E., 2010, Joint Resource and Network Scheduling with Adaptive Offset Determination for Optical Burst Switched Grids, *Future Generation Computer Systems, 26*, April 2010, pp. 576– 589.

Kulseitova, A., Fong, A.T., 2013, A Survey of Energy-Efficient Techniques in Cloud Data Centers, *Proceedings - International Conference on ICT for Smart Society 2013: "Think Ecosystem Act Convergence", ICISS 2013,* 13-14 June 2013, Jakarta, pp. 267–271.

Kusic, D., Kephart, J.O., Hanson, J.E., Kandasamy, N., dan Jiang, G., 2009, Power and Performance Management of Virtualized Computing Environments Via Lookahead Control, *Autonomic Computing, 2008.*

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
GURUH FAJAR SHIDIK, Azhari; Khabib Mustofa
Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

ICAC '08. International Conference, 12, 2-6 June 2008, Chicago, IL, pp. 1–15.

Kusumadewi, S., Purnomo, H., 2004. *Aplikasi Logika Fuzzy untuk pendukung keputusan*, 8th ed, Graha Ilmu, Yogyakarta.

Larose, T.D., 2005, Discovering knowledge in data: An introduction to data mining, *Vasa.*

Ledgard, H.F., 1972, Embedding Markov Normal Algorithms Within the λ-Calculus, *International Journal of Computer Mathematics, 3,* 21 Dec 2010, pp. 131–140.

Lee, E.K., Viswanathan, H., and Pompili, D., 2012, VMAP : Proactive Thermal-aware Virtual Machine Allocation in HPC Cloud Datacenters, *High Performance Computing (HiPC), 2012 19th International Conference on,*18-22 Dec. 2012, Pune, pp. 1 - 10.

Leelipushpam, P.G.J., 2013, Live VM Migration Techniques in Cloud Environtment – A Survey, *in: Conference on Information and Communication Technologies,*11-12 April 2013, JeJu Island, pp. 408–413.

Li, J., Fan, W., 2002, Coordination Scheduling Based On Fuzzy Concepts, *in: First International Conference on Machine Learning and Cybernatics,3,* 2002, pp. 1489–1492.

Li, X., Ventresque, A., Murphy, J., and Thorburn, J., 2014, A Fair Comparison of VM Placement Heuristics and a More Effective Solution, *2014 IEEE 13th International Symposium on Parallel and Distributed Computing,*24-27 June 2014, Marseilles, pp. 35–42.

Liu, H., Jin, H., Xu, C., and Liao, X., 2011, Performance and energy modeling for live migration of virtual machines, *in: Cluster Computing, 16,* June 2013, pp 249-264

Liu, S., Cheng, Y., 2012, Research on K-Means Algorithm Based on Cloud Computing, *2012 International Conference on Computer Science and Service System,* 11-13 Aug. 2012, Nanjing, pp. 1762–1765.

Markov, A.., 1954, Theory of Algorithm, Works of Mathematical Institute, *Works of The Mathematical Institute,* Academy of Science of The USSR.

Markov, A.A., 1961, Theory of algorithms: The Israel program for scientific translations.

Masoumzadeh, S., Hlavacs, H., 2013, Integrating VM Selection Criteria in Distributed Dynamic VM Consolidation Using Fuzzy Q-Learning, *in: 9th International Conference on Netork and Service Management (CNSM). IEEE,* 14-18 Oct. 2013, Zurich, pp. 332–338.

Masoumzadeh, S.S., 2013, Intelligent Decision-Making in Distributed Dynamic VM Consolidation Using Fuzzy Q-Learning, *In: IFIP WG 7.3 Performance 2013 31 st International Symposium on Computer Performance, Modeling, Measurements and Evaluation 2013 Student Poster Abstracts September 24-26,* Vienna, Austria. 2013.

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
GURUH FAJAR SHIDIK, Azhari; Khabib Mustofa
Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

Minas, L., Ellison, B., 2009, Energy Efficiency for Information Technology: How to Reduce Power Consumption in Servers and Data Centers, *Intel Press.*

Mishra, M., Sahoo, A., 2011, On Theory of VM Placement: Anomalies in Existing Methodologies and Their Mitigation Using a Novel Vector Based Approach, *2011 IEEE 4th International Conference on Cloud Computing,* 4-9 July 2011, Washington, DC, pp. 275–282.

Monil, M.A.H., Rahman, R.M., 2016. VM consolidation approach based on heuristics, fuzzy logic, and migration control. *Journal of Cloud Computing* vol 5, no 8, pp 1-18.

Mukherjee, K., Sahoo, G., 2009, Mathematical Model of Cloud Computing Framework Using Fuzzy Bee Colony Optimization Technique, *in: 2009 International Conference on Advances in Computing, Control, and Telecommunication Technologies,* 28-29 Dec. 2009, Trivandrum, Kerala, pp. 664–668.

Nathuji, R., Schwan, K., 2007, VirtualPower: coordinated power management in virtualized enterprise systems, *ACM SIGOPS Operating Systems Review, 41,* December 2007, New York, NY, USA, pp. 265–278.

Pakhira, M.K., 2014, A Linear Time-Complexity k-Means Algorithm Using Cluster Shifting, *2014 International Conference on Computational Intelligence and Communication Networks,* 14-16 Nov. 2014, Bhopal, pp. 1047–1051.

Park, K., Pai, V.S., 2004, CoMon : A Mostly-Scalable Monitoring System for PlanetLab, *ACM SIGOPS Operating Systems Review, 40,* January 2006, New York, NY, USA, pp. 65-74.

Pinheiro, E., Bianchini, R., Carrera, E. V, and Heath, T., 2001, Load Balancing and Unbalancing for Power and Performance in Cluster-Based Systems, *Workshop on Compilers and Operating Systems for Low Power, 180,* pp. 182–195.

Priya, B., Pilli, E.S., and Joshi, R.C., 2012, A Survey on Energy and Power Consumption Models for Greener Cloud, *Advance Computing Conference (IACC), 2013 IEEE 3rd International*, 22-23 Feb. 2013, Ghaziabad, pp. 76–82.

Qu, C., Buyya, R., 2014, A Cloud Trust Evaluation System Using Hierarchical Fuzzy Inference System for Service Selection, *2014 IEEE 28th International Conference on Advanced Information Networking and Applications,* 13-16 May 2014, Victoria, BC, pp. 850–857.

Quan, D.M., Basmadjian, R., Meer, H. De, and Lent, R., 2011, Energy Efficient Resource Allocation Strategy for Cloud Data Centres, *Computer and Information Sciences II, 26th International Symposium on Computer and Information Sciences, Springer London,* pp 133-141.

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
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Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

Quang-Hung, N., Nien, P., and Nam, N., 2013, A Genetic Algorithm for Power-Aware Virtual Machine Allocation in Private Cloud, *in: ICT Eurasia 2013, Springer Link, 7804*, pp. 183–191.

Quesnel, F., Lèbre, A., and Südholt, M., 2012, Cooperative and Reactive Scheduling in Large-Scale Virtualized Platforms with DVMS, *Concurrency and Computation: Practice and Experience, 25*,25 August 2013, pp. 1643–1655

Raghavendra, R., Ranganathan, P., Talwar, V., Wang, Z., Zhu, X., Raghavendra, R., Ranganathan, P., Talwar, V., Wang, Z., and Zhu, X., 2008, Data Center No " Power " Struggles : Coordinated Multi-level Power Management for the Data Center, *ASPLOS'08, 42,* March 2008, pp. 48-59 .

Raja, C., Sathya, G., and Rajan, E.G., 2012, Theory of Markov's Normal Algorithms, *2012 International Conference on Computing Sciences*, 4-15 Sept. 2012, Phagwara, pp. 21–26.

Rajan, E.G., 2005, Symbolic Computing - Signal and Image Processing, *Anshan Publishers.*

Ramezani, F., Lu, J., and Hussain, F., 2013, An Online Fuzzy Decision Support System for Resource Management in Cloud Environments, *2013 Joint IFSA World Congress and NAFIPS Annual Meeting (IFSA/NAFIPS)*, 24-28 June 2013, Edmonton, AB, pp. 754–759.

Ranjana, R., Raja, J., 2013, A Survey on Power Aware Virtual Machine Placement Strategies in A Cloud Data Center, *in: Green Computing, Communication and Conservation of Energy (ICGCE)*, 12-14 Dec. 2013, Chennai, pp. 747–752.

Rasouli, N., Meybodi, M.R., and Morshedlou, H., 2013, Virtual Machine Placement in Cloud Systems Using Learning Automata, *2013 13th Iranian Conference on Fuzzy Systems (IFSC)*, 27-29 Aug. 2013, Qazvin, pp. 1–5.

Rong, C., Esteves, R.M., 2011, Using Mahout for Clustering Wikipedia's Latest Articles: A Comparison Between K-means and Fuzzy C-means in The Cloud, *Proceedings - 2011 3rd IEEE International Conference on Cloud Computing Technology and Science, CloudCom 2011,* Nov. 29 2011-Dec. 1 2011, Athens, pp. 565–569.

Russel, S., Norvig, P., 2005, Artifical Inteligence A Modern Approach, 2nd Edition, *United States Of America Prentice Hall.*

Ryckbosch, F., Polfliet, S., and Eeckhout, L., 2011, Trends in Server Energy Proportionality, *Computer, 44, IEEE*, 21 April 2011, pp. 69–72.

Sakellari, G., Loukas, G., 2013, A Survey of Mathematical Models, Simulation Approaches and Testbeds Used for Research in Cloud Computing, *Simulation Modelling Practice and Theory, 39*, December 2013, pp. 92–103.

Shanin, N.A., 1968, Constructive Real Numbers and Constructive Function Spaces, i*n: American Mathematical Society,* Rhode Island.

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
GURUH FAJAR SHIDIK, Azhari; Khabib Mustofa
Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

Shanin, N.A., 1963, On the Constructive Interpretation of Mathematical Judgements, *American Mathematical Society Translation , Vol 23,*pp. 109-189.

Shidik, G.F., Ashari, A., 2014, Efficiency Energy Consumption in Cloud Computing Based on Constant Position Selection Policy in Dynamic Virtual Machine Consolidation, *Advanced Science Letters, Vol 20,* October 2014, pp. 2119–2124.

Shidik, G.F., Azhari, and Mustofa, K., 2015a, Evaluation of Selection Policy with Various Virtual Machine Instances in Dynamic VM Consolidation for Energy Efficient at Cloud Data Centers, *Journal of Networks, Vol 10,* Aug 2015, pp. 397–406.

Shidik, G.F., Azhari, Mustofa, K., 2015b, Evaluation of VM Selection Policy in Minimizing Cost Energy VM Migration at Dynamic Virtual Machine Consolidation, *Advanced Science Letters, Vol 21,* October 2015, pp. 3293–3296.

Shidik, G.F., Pulungan, R., 2015, Application of Markov's Normal Algorithm, *Advanced Science Letters, Vol 21,* October 2015, pp. 3271–3274.

Shu, W., Wang, W., and Wang, Y., 2014, A Novel Energy-Efficient Resource Allocation Algorithm Based on Immune Clonal Optimization for Green Cloud Computing, *EURASIP Journal on Wireless Communications and Networking, Vol 64,*23 April 2014.

Shyamala, K., Rani, T.S., 2015, An Analysis on Efficient Resource Allocation Mechanisms in Cloud Computing, *Indian Journal of Scince and Technology, Vol 8,* p. 797

Sinti, J., Jiffry, F., and Aiash, M., 2014, Investigating the Impact of Live Migration on the Network Infrastructure in Enterprise Environments, *2014 28th International Conference on Advanced Information Networking and Applications Workshops,* 13-16 May 2014, Victoria, BC, pp. 154–159.

Sithu, M., Thein, N.L., 2011, A Resource Provisioning Model for Virtual Machine Controller Based on Neuro-Fuzzy System, *in: The 2nd International Conference on Next Generation Information Technology (ICNIT),* 21-23 June 2011, Gyeongju, pp. 109–114.

Song, Y., Sun, Y., Shi, W., and Member, S., 2013, A Two-Tiered On-Demand Resource Allocation Mechanism for VM-Based Data Centers, *IEEE Transactions on Services Computing, 6,* 23 June 2011, pp. 116–129.

Song, Y., Wang, H., Li, Y., Feng, B., and Sun, Y., 2009, Multi-Tiered on-Demand Resource Scheduling for VM-Based Data Center, *in: Proceedings of the 2009 9th IEEE/ACM International Symposium on Cluster Computing and the Grid,* 18-21 May 2009, Shanghai, pp. 148–155.

Spec.org, 2008, SPECpower_ssj2008 Hewlett-Packard Company ProLiant ML110 G5 [WWW Document], *URL http://www.spec.org/power_ssj2008/results/res2011q1/power_ssj2008-20110124-00339.html*

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
GURUH FAJAR SHIDIK, Azhari; Khabib Mustofa
Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

Srikantaiah, S., 2009, Energy Aware Consolidation for Cloud Computing. Cluster Computing, *In: Proceedings of the 2008 Conference on Power Aware Computing and Systems, 12,* pp. 1–15.

Stillwell, M., Schanzenbach, D., Vivien, F., and Casanova, H., 2009, Resource Allocation Using Virtual Clusters, *2009 9th IEEE/ACM International Symposium on Cluster Computing and the Grid, 33,* 18-21 May 2009, Shanghai, pp, 260–267.

Strunk, A., Dargie, W., 2013, Does Live Migration of Virtual Machines Cost Energy?, *2013 IEEE 27th International Conference on Advanced Information Networking and Applications (AINA),*25-28 March 2013, Barcelona, pp. 514–521.

Ts'epoMofolo, R., 2013, Heuristic Based Resource Allocation Using Virtual Machine Migration: A Cloud Computing Perspective, *International Refereed Journal of Engineering and Science (IRJES), Vol 2,* May 2013, pp. 40–45.

Tsai, M.-H., Chou, J., and Chen, J., 2013, Prevent VM Migration in Virtualized Clusters via Deadline Driven Placement Policy, *2013 IEEE 5th International Conference on Cloud Computing Technology and Science,* 2-5 Dec. 2013, Bristol, pp. 599–606.

Vasic, N., Kostic, D., 2010, Energy-Aware Traffic Engineering, *in: Pro-Ceedings of the 1st ACM International Conference on Energy Efficient Computing and Networking (e-Energy 2010),*Pasau, Germany, pp. 169–178.

Verma, A., Ahuja, P., and Neogi, A., 2008, pMapper: Power and Migration Cost Aware Application Placement in Virtualized Systems, *in: Middleware 2008, Springer,* pp. 243–264.

Verma, A., Dasgupta, G., Nayak, T.K., De, P., and Kothari, R., 2009, Server Workload Analysis for Power Minimization Using Consolidation, *in: Proceedings of the 2009 Conference on USENIX Annual Technical Conference,*Berkeley, CA, USA, p. 28.

Verma, J.K., Katti, C.., 2015, A Comparative Study into Energy Efficient Techniques for Cloud Computing, *in: The 2nd International Conference on Computing for Sustainable Global Development (INDIACom),*11-13 March 2015, New Delhi,pp. 2062–2067.

Vu, H., Hwang, S., 2014, A Traffic and Power-aware Algorithm for Virtual Machine Placement in Cloud Data Center, *International Journal of Grid & Distributed Computing, 7,* pp. 350-355.

Wang, J., Huang, C., He, K., Wang, X., Chen, X., and Qin, K., 2013, An Energy-Aware Resource Allocation Heuristics for VM Scheduling in Cloud, *2013 IEEE 10th International Conference on High Performance Computing and Communications & 2013 IEEE International Conference on Embedded and Ubiquitous Computing,* 13-15 Nov. 2013, Zhangjiajie, pp. 587–594.

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
GURUH FAJAR SHIDIK, Azhari; Khabib Mustofa
Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

Wang, X., Liu, Z., 2012, An Energy-Aware VMs Placement Algorithm in Cloud Computing Environment, *2012 Second International Conference on Intelligent System Design and Engineering Application*, 6-7 Jan. 2012, Sanya, Hainan, pp. 627–630.

Wang, Y., 2011, Fuzzy Methods for Analysis of Microarrays and Networks, *Disertation*, Dept. Mathematical Science, Queensland University of Technology.

Wei, B., Lin, C., and Kong, X., 2011, Energy Optimized Modeling for Live Migration in Virtual Data Center, *Computer Science and Network Technology (ICCSNT), 2011 International Conference*, *4*, 24-26 Dec. 2011, Harbin, pp. 2311–2315.

Wei, W., Wei, X., Chen, T., Gao, X., and Chen, G., 2013, Dynamic Correlative VM Placement for Quality-Assured Cloud Service, *in: IEEE ICC 2013-Communication QoS, Reliability and Modelling Symposium*, 9-13 Jun. 2013, Budapest, Hungary, pp. 2573–2577.

Wuhib, F., Stadler, R., and Lindgren, H., 2012, Dynamic Resource Allocation with Management Objectives — Implementation for an OpenStack Cloud, Network and service management (cnsm), *2012 8th international conference and 2012 workshop on systems virtualiztion management (svm)*, 22-26 Oct. 2012, Las Vegas, NV, USA, pp. 309–315.

Wuhib, F., Stadler, R., and Spreitzer, M., 2010, Gossip-Based Resource Management for Cloud Environments, *in: Network and Service Management (CNSM), 2010 International Conference*,25-29 Oct. 2010, Niagara Falls, ON , pp. 1–8.

Xia, Q., Lan, Y., Zhao, L., Xiao, L., Model, A.E., and Consolidation, R., 2014, Energy-saving Analysis of Cloud Workload Based on K-means Clustering, *in: Computing, Communications and IT Applications Conference (ComComAp), IEEE*, 20-22 Oct. 2014, Beijing, pp. 305–309.

Xu, G., Ding, Y., Zhao, J., Hu, L., and Fu, X., 2013, A Novel Artificial Bee Colony Approach of Live Virtual Machine Migration Policy Using Bayes Theorem, *The Scientific World Journal 2013*, 17 November 2013, 369209.

Xu, J., Fortes, and J. a. B., 2010, Multi-Objective Virtual Machine Placement in Virtualized Data Center Environments, *2010 IEEE/ACM International Conference on Green Computing and Communications & International Conference on Cyber, Physical and Social Computing*, 18-20 Dec. 2010, Hangzhou, pp. 179–188.

Xu, J., Zhao, M., Fortes, J., Carpenter, R., and Yousif, M., 2008, Autonomic Resource Management in Virtualized Data Centers Using Fuzzy Logic-based Approaches, *Cluster Computing, Vol 11*, September 2008, Kluwer Academic Publishers Hingham, MA, USA, pp. 213–227.

Xu, J., Zhao, M., Fortes, J., Carpenter, R., and Yousif, M., 2007, On the Use of Fuzzy Modeling in Virtualized Data Center Management, *Fourth*

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
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Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

International Conference on Autonomic Computing (ICAC'07), 11-15 June 2007, Jacksonville, FL, pp. 25–25.

Xu, Y., Zhang, Y., and Ma, R., 2012, K-means Algorithm Based on Cloud Computing, *2012 Fifth International Symposium on Computational Intelligence and Design,* pp. 363–365.

Yanfei, L., Wang, Y., Yin, B., and Guan, L., 2012, An Energy Efficient Resource Management Method in Virtualized Cloud Environment, *in: Asia-Pacific Network Operations and Management Symposium (APNOMS),* IEEE, 25-27 Sept. 2012, Seoul, pp. 1–8.

Yanggratoke, R., Wuhib, F., and Stadler, R., 2011, Gossip-Based Resource Allocation for Green Computing in Large Clouds, *in: Network and Service Management (CNSM), 2011 7th International Conference,*24-28 Oct. 2011, Paris, pp. 1–9.

Yazir, Y.O., Matthews, C., Farahbod, R., Neville, S., Guitouni, A., Ganti, S., and Coady, Y., 2010, Dynamic Resource Allocation in Computing Clouds Using Distributed Multiple Criteria Decision Analysis, *in: Cloud Computing (CLOUD), 2010 IEEE 3rd International Conference,* 5-10 July 2010, Miami, FL, pp. 91–98.

Yi, J., Li, S., Wu, M., Yeung, H.H.A., Fok, and W.W.T., 2014, Cloud-based Educational Big Data Application of Apriori algorithm and K-Means Clustering Algorithm Based on Students ' Information, 3-5 Dec. 2014, Sydney, NSW, pp. 151–158.

Yuanmi, C., 2007, Markov Algorithm, *Institut de Recherche en Informatique Fondamentale* France, 1–7.

Yue, M., 1991, A Simple Proof of The Inequality FFD (L)? 11/9 OPT (L)+ 1,? L For the FFD Bin-Packing Algorithm, *Acta Mathematicae Applicatae Sinica, 7,* October 1991, pp. 321–331.

Zadeh, L.A., 1996, Fuzzy Sets, Fuzzy Logic, Fuzzy Systems, *World Scientific.*

Zhang, J., Ren, F., and Lin, C., 2014, Delay Guaranteed Live Migration of Virtual Machines, *INFOCOM, 2014 Proceedings IEEE,* April 27 2014-May 2 2014, Toronto, ON, pp. 574–582.

Zhang, Q., Cheng, L., and Boutaba, R., 2010, Cloud Computing: State-of-the-art and Research Challenges, *Journal of Internet Services and Applications, Vol 1,* pp. 7–18.

Zhang, Z., Wang, H., Xiao, L., and Ruan, L., 2011, A Statistical based Resource Allocation Scheme in Cloud, *in: International Conference on Cloud and Service Computing,* 12-14 Dec. 2011, Hong Kong, pp. 266–273.

Zhao, J., Hu, L., Ding, Y., Xu, G., and Hu, M., 2014, A Heuristic Placement Selection of Live Virtual Machine Migration for Energy-Saving in Cloud Computing Environment, *PloS one, Vol 9,* September 24, 2014, e108275.

Zhihong Li, Luo, W., Lu, X., and Wei, J., 2012, A Live Migration Strategy for Virtual Machine Based on Performance Predicting, *in: 2012 International*

UNIVERSITAS
GADJAH MADA
METODE SELEKSI MESIN VIRTUAL DI DALAM DYNAMIC VM CONSOLIDATION UNTUK EFISIENSI ENERGI PADA CLOUD DATA CENTER
GURUH FAJAR SHIDIK, Azhari; Khabib Mustofa
Universitas Gadjah Mada, 2016 | Diunduh dari http://etd.repository.ugm.ac.id/

Conference on Computer Science and Service System, IEEE, 11-13 Aug. 2012, Nanjing, pp. 72–76.

Zhou, Z., Hu, Z., Song, T., and Yu, J., 2015, A Novel Virtual Machine Deployment Algorithm with Energy Efficiency in Cloud Computing, *Journal of Central South University, Vol 22,* March 2015,pp. 94–983.

Zhu, S., Gong, G., 2015, Fuzzy Authorization for Cloud Storage, *IEEE Transaction on Cloud Computing, Vol 2,*11 Juli 2014, pp. 422–435.