Bibliography

[1] Alabdulmohsin I., Gao X., Zhang X. Z., *Support vector machines with indefinite kernels.* In Asian Conference on Machine Learning, pp. 32 - 47, February 2015.

[2] Alabdulmohsin I., Cisse M., Gao X., Zhang X., *Large margin classification with indefinite similarities.* Machine learning, 103(2), pp. 215 - 237, 2016.

[3] Amato F., López A., Peña-Méndez E. M., Vaňhara P., Hampl A. , Havel J., *Artificial neural networks in medical diagnosis.* Journal of Allied Biomedicine, 11, pp. 47-58, 2013. doi: 10.2478/v10136-012-0031-x.

[4] Bache K., Lichman M., *UCI Machine Learning Repository [http://archive. ics. uci. edu/ml].* University of California, School of Information and Computer Science, Irvine, CA, 2013.

[5] Badrinath N., Gopinath G., Ravichandran K. S., Soundhar R. G., *Estimation of automatic detection of erythemato-squamous diseases through AdaBoost and its hybrid classifiers.* Artificial Intelligence Review, 45(4), pp.471 - 488, 2016.

[6] Bakheet S. *An SVM Framework for Malignant Melanoma Detection Based on Optimized HOG Features.* Computation, 5(1), pp. 4, 2017.

[7] Bapko F.S., Kabari L.G., *Diagnosing Skin Diseases using an Artificial Neural Network.* Artificial Neural Networks- Methodological Advances and Biomedical Applications, InTech, 2011.

[8] Bartlett P.L., *The sample complexity of pattern classification with neural networks: the size of the weights is more important than the size of the network.* IEEE transactions on Information Theory, 44(2), pp.525-536, 1998.

[9] Battiti R., *Using mutual information for selecting features in supervised neural net learning.* IEEE Transactions on neural networks, 5(4), pp.537-550, 1994.

[10] Basu A., Roy S., Abrahan A., *A Novel Diagnostic Approach Based on Support Vector Machine with Linear Kernel for Classifying the Erythemato-Squamous Disease.* Computing Communication Control and Automation (ICCUBEA) - International conference, pp.343 - 347, 2015.

[11] Ben-Hur A., Weston J., *A user's guide to support vector machines.* Data mining techniques for the life sciences, pp. 223 - 239, 2010.

[12] Boser B. E., Guyon I. M., Vapnik V. N., *A training algorithm for optimal margin classifiers.* In Proceedings of the fifth annual workshop on Computational learning theory, pp.144 - 152, ACM, July 1992.

[13] Bennett K. P., Bredensteiner E. J., *Duality and geometry in SVM classifiers.* In ICML, pp.57 - 64, June 2000.

[14] Byvatov E., Fechner U., Sadowski J., Schneider G., *2003. Comparison of support vector machine and artificial neural network systems for drug/nondrug classification.* Journal of chemical information and computer sciences, 43(6), pp. 1882-1889, 2003.

[15] Canu S., Ong C. S., Mary X., *Splines with non positive kernels.* International ISAAC Congress, Aug 2005, Catania, Italy. World Scientific, pp. 163-173, 2009.

[16] Cha. S. H., *Comprehensive survey on distance/similarity measures between probability density functions.* City, 1(2), p.1, 2007.

[17] Chandrashekar G., Ferat S., *A survey on feature selection methods.* Computers & Electrical Engineering, 40(1), pp. 16 - 28, 2014.

[18] Carmeli C., De Vito E., Toigo A., *Reproducing kernel Hilbert spaces and Mercer theorem.* arXiv preprint math/0504071, 2008.

[19] Chang C. C., Lin C. J., *LIBSVM: a library for support vector machines.* ACM transactions on intelligent systems and technology (TIST), 2(3), pp. 27, 2011.

[20] Chen J., Ye J., *Training SVM with indefinite kernels.* In Proceedings of the 25th international conference on Machine learning, pp. 136 - 143, ACM., July 2008.

[21] Chen Y., Gupta M. R., Recht B., *Learning kernels from indefinite similarities.* In Proceedings of the 26^{th} Annual International Conference on Machine Learning, ACM, pp. 145 - 152, June 2009.

[22] Cortes C., Vapnik V., *Support-vector networks.* Machine learning, 20(3), pp. 273 - 297, 1995.

[23] Cortes C., Haffner P., Mohri M., *Positive definite rational kernels.* Lecture notes in computer science, pp. 41 - 56, 2003.

[24] Crisp D.J., Burges C. J., *A geometric interpretation of v-SVM classifiers.* In Advances in neural information processing systems, pp. 244 - 250, 2000.

[25] Courrieu P., *Fast computation of Moore-Penrose inverse matrices.* arXiv preprint arXiv:0804.4809, 2008.

[26] Csáji B. C., *Approximation with artificial neural networks.* Faculty of Sciences, Etvs Lornd University, Hungary, 24, p. 48, 2001.

[27] Cybenko G., *Approximation by superpositions of a sigmoidal function.* Mathematics of Control, Signals and Systems (MCSS), 2(4), pp.303-314, 1989.

[28] Danjuma K., Osofisan A. O., *Evaluation of Predictive Data Mining Algorithms in Erythemato-Squamous Disease Diagnosis.* arXiv preprint arXiv:1501.00607, 2015.

[29] Dao V.N., Vemuri V.R., *A performance comparison of different back propagation neural networks methods in computer network intrusion detection.*2002. Differential equations and dynamical systems, 10(1 & 2), pp. 201-214, 2002

[30] Davis J., Goadrich M., *The relationship between Precision-Recall and ROC curves.* In Proceedings of the 23rd international conference on Machine learning, pp. 233-240, ACM, 2006.

[31] Decoste D., Schölkopf B. *Training invariant support vector machines.* Machine learning, 46(1), pp. 161 - 190, 2002.

[32] Ding S., Zhao H., Zhang Y., Xu X., Nie R. *Extreme learning machine: algorithm, theory and applications.* Artificial Intelligence Review, 44(1), pp. 103, 2015. doi:10.1007/s10462-013-9405-z.

[33] Ding S., Guo L., Hou Y., *Extreme learning machine with kernel model based on deep learning.* Neural Computing and Applications, 28(8), pp. 1975-1984, 2017.

[34] Duval B., Hao J.K., Hernandez Hernandez J.C., *A memetic algorithm for gene selection and molecular classification of cancer.* In Proceedings of the 11^th Annual conference on Genetic and evolutionary computation, pp. 201-208, ACM. 2009, July.

[35] Esteva A., Kuprel B., Novoa R. A., Ko J., Swetter S. M., Blau H. M., Thrun S., *Dermatologist-level classification of skin cancer with deep neural networks.* Nature, 542(7639), pp. 115 - 118, 2017.

[36] Evgeny B., Fechner U., Sadowski J., Schneider G., *Comparison of support vector machine and artificial neural network systems for drug/nondrug classification.* Journal of Chemical Information and Computer Sciences, 43(6), pp. 1882 - 1889, 2003.

[37] Filimon D.M., Albu A., *Skin diseases diagnosis using artificial neural networks.* In Applied Computational Intelligence and Informatics (SACI), 2014 IEEE 9th International Symposium on IEEE, pp. 189-194, 2014. doi: 10.1109/SACI.2014.6840059.

[38] Gestel V., Tony I., Baesens B., Garcia I., Dijcke P.V., *A support vector machine approach to credit scoring.* In forum financier-revue bancaire et financiaire bank en financiewezen-unknown, pp. 73 - 82, 2003.

[39] Giveki D., Salimi H., Bitaraf A. A., Khademian Y., *Detection of erythemato-squamous diseases using AR-CatfishBPSO-KSVM.* Signal & Image Processing, 2(4), pp. 57 - 72, 2011.

[40] Gleason A. M., *The Definition of a Quadratic Form.* The American Mathematical Monthly, 73(10), pp. 1049-1056, 1966. doi:10.2307/2314635.

[41] Gordon G., Tibshirani R., *Karush-kuhn-tucker conditions.* Optimization, 10-725, 36-725), pp.725, 2012.

[42] Graepel T., Herbrich R., Bollmann-Sdorra P., Obermayer K., *Classification on pairwise proximity data.* In Advances in neural information processing systems, pp. 438 - 444, 1999.

[43] Gu S., Guo Y. *Learning SVM Classifiers with Indefinite Kernels.* Proceedings of the Twenty-Sixth Association for the Advancement of Artificial Intelligence Conference on Artificial Intelligence, July 2012.

[44] Güvenir H. A., Emeksiz N., *An expert system for the differential diagnosis of erythemato-squamous diseases.* Expert Systems with Applications, 18(1), pp. 43 - 49, 2000.

[45] Guyon I., Elisseeff A., *An introduction to variable and feature selection.* Journal of machine learning research, pp. 1157-1182, 2003.

[46] Haasdonk B., Keysers D., *Tangent distance kernels for support vector machines.* In Pattern Recognition, 2002. Proceedings. 16th International Conference on IEEE, 2, pp. 864-868, 2000.

[47] Haasdonk B., *Feature space interpretation of SVMs with indefinite kernels.* IEEE Transactions on Pattern Analysis and Machine Intelligence, 27(4), pp. 482 - 492, 2005.

[48] Hawking S. W., Ellis G.F.R., *The large scale structure of space-time* Cambridge University Press, 1973

[49] Hinton G.E., Osindero S., Teh Y.W., *A fast learning algorithm for deep belief nets.* Neural computation, 18(7), pp. 1527-1554, 2006.

[50] Hinton G.E., Salakhutdinov R.R., *Reducing the dimensionality of data with neural networks.* science, 313(5786), pp. 504-507, 2006.

[51] Hsu C. W., Chang C. C., Lin C. J., A practical guide to support vector classification. Technical report, Department of Computer Science, National Taiwan University, 2003.(updated version 2016).

[52] Hong W. C. *Electric load Forecasting by support vector machine model.* Applied Mathematical Modeling, 33(5), pp. 2444 - 2454, 2009.

[53] Huang G. B., Zhu Q. Y., Siew C. K., *Extreme learning machine: a new learning scheme of feedforward neural networks.* In Neural Networks, 2004. Proceedings. 2004 IEEE International Joint Conference in 2004, pp. 985 - 990, 2004.

[54] Huang G. B. ,Siew C. K. *Extreme Learning Machine with Randomly Assigned RBF Kernels.* International Journal of Information Technology, 11(1), 2005.

[55] Huang G. B., Zhu Q.Y., Siew C.K., *Extreme learning machine: theory and applications.* Neurocomputing, 70(1), pp. 489-501, 2006.

[56] Huang, G. B., Chen L., *Convex incremental extreme learning machine.* Neurocomputing, 70(16), pp. 3056-3062, 2007.

[57] Huang G. B., Chen L., *Enhanced random search based incremental extreme learning machine.* Neurocomputing, 71(16), pp. 3460-3468, 2008.

[58] Huang G. B., Ding X., Zhou H., *Optimization method based extreme learning machine for classification.* Neurocomputing, 74(1), pp. 155-163, 2010.

[59] Huang G.B., Zhou H., Ding X., Zhang R., *Extreme learning machine for regression and multiclass classification.* IEEE Transactions on Systems, Man, and Cybernetics, Part B (Cybernetics), 42(2), pp. 513-529, 2012.

[60] Huang G., Huang G.B., Song S., You K., *Trends in extreme learning machines: A review.* Neural Networks, 61, pp.32-48, 2015.

[61] Huang X., Maier A., Hornegger J., Suykens J. A., *Indefinite kernels in least squares support vector machines and principal component analysis.* Applied and Computational Harmonic Analysis, 43(1), pp. 162 - 172, 2017.

[62] Huaping Z., Zhang R., *Application of Support Vector Machine Model in Mine Gas Safety Level Prediction.* TELKOMNIKA Indonesian Journal of Electrical Engineering, 12(5), pp. 4056 - 4062, 2014.

[63] Isabelle G., Gunn S., Nikravesh M., Zadeh L. A., eds. *Feature Extraction: Foundations and Applications.* 207, Springer, 2008.

[64] Ivanciuc O., *Applications of support vector machines in chemistry.* Reviews in computational chemistry, 23, pp. 291, 2007.

[65] James W., *The Principles of Psychology,1890*

[66] Karlik B., Harman G., *Computer-aided software for early diagnosis of erythemato-squamous diseases.* In Electronics and Nanotechnology (ELNANO),IEEE XXXIII International Scientific Conference, pp. 276 - 279, April 2013.

[67] Khesin B., Tabachnikov S., *Pseudo-Riemannian geodesics and billiards.* Advances in Mathematics, 221(4), pp. 1364-1396, 2009.

[68] Kuang, Y., *A Comparative Study on Feature Selection Methods and Their Applications in Causal Inference.* Institutionen fr datavetenskap, Lunds universitet, 2009.

[69] Kumari V.A., Chitra R., *Classification of diabetes disease using support vector machine.* International Journal of Engineering Research and Applications, 3(2), pp. 1797-1801, 2013.

[70] Kohavi R., John G. H., *Wrappers for feature subset selection.* Artificial intelligence, 97(1-2), pp. 273-324, 1997.

[71] Kreyszig E. *Introductory Functional Analysis with Applications. Wiley, 1989.*

[72] Kumari V. A., Chitra R., *Classification of diabetes disease using support vector machine.* International Journal of Engineering Research and Applications, 3(2), pp. 1797 - 1801, 2013.

[73] Laub J., Mller K-R *Feature discovery in non-metric pairwise data .* J. Mach. Learn. Res., ISSN 1532-4435, vol. 5, pp. 801818, 2004.

[74] Lau H. T., Adel Al-J, *Automatically early detection of skin cancer: Study based on nueral netwok classification.* Soft Computing and Pattern Recognition, 2009. SOCPAŔ09. International Conference of IEEE, 2009.

[75] Lazar C., Taminau J., Meganck S., Steenhoff D., Coletta A., Molter C., de Schaetzen V., Duque R., Bersini H., Nowe A., *A survey on filter techniques for feature selection in gene expression microarray analysis.* IEEE/ACM Transactions on Computational Biology and Bioinformatics, 9(4), pp. 1106-1119, 2012.

[76] *https* : *//www.csie.ntu.edu.tw/ cjlin/libsvm/*

[77] Limaye B. V., *Functional Analysis.* Wiley Eastern Limited, second edition, ISBN: 81-224-0849-4, 1996.

[78] Lin H.T., Lin C.J., *A study on sigmoid kernels for SVM and the training of non-PSD kernels by SMO-type methods.* Submitted to Neural Computation, pp.1-32, 2003.

[79] Liu Y., Zheng Y.F., *FS_SFS: A novel feature selection method for support vector machines.* Pattern recognition, 39(7), pp. 1333-1345, 2006.

[80] Liu X., Wang L., Huang G. B., Zhang J., Yin J., *Multiple kernel extreme learning machine.* Neurocomputing, 149, pp. 253-264, 2015.

[81] Loosli G., Ong C. S., Canu S., *Technical report: SVM in Krein spaces, 2013.*

[82] Loosli G., Canu S., Ong C. S., *Learning SVM in Krein spaces.* IEEE transactions on pattern analysis and machine intelligence, 38(6), pp. 1204 - 1216, 2016.

[83] Luss R., d'Aspremont A., *Support vector machine classification with indefinite kernels.* Mathematical Programming Computation, 2(1), pp. 97 - 118, 2009.

[84] Macukow B., *Neural NetworksState of Art, Brief History, Basic Models and Architecture.* In IFIP International Conference on Computer Information Systems and Industrial Management, pp. 3-14, Springer, Cham., 2016.

[85] Maghsoudi R., Bagheri A., Maghsoudi M.T., *Diagnosis prediction of lichen planus, leukoplakia and oral squamous cell carcinoma by using an intelligent system based on artificial neural networks.* Journal of Dentomaxillofacial, 2(2), pp.1-8, 2013. doi: 10.18869/acadpub.3dj.2.2.1.

[86] McCulloch W.S., Pitts W., *A logical calculus of the ideas immanent in nervous activity.* The bulletin of mathematical biophysics, 5(4), pp.115-133, 1943.

[87] Mehdy M.M., Ng P.Y., Shair E.F., Saleh N.I., Gomes C., *Artificial neural networks in image processing for early detection of breast cancer.* Computational and mathematical methods in medicine, 2017. doi.org/10.1155/2017/2610628.

[88] Minh H.Q., Niyogi P., Yao Y., *Mercer's theorem, feature maps, and smoothing.* In COLT., 6, pp. 154-168, 2006.

[89] Mun̄oz A, Diego I. M. de *From indefinite to positive semidefinite matrices* . In SSPR&SPR 2006, LNCS 4109, pp. 764772, 2006.

[90] Naser S. S. A., Akilla A. N., *A proposed expert system for skin diseases diagnosis.* Journal of Applied Sciences Research, 4(12), pp. 1682 - 1693, 2008.

[91] Ng A., Part V., *CS22 Lecture notes.* CS229 Lecture notes, 2003.

[92] Ogata K., *Discrete-time control systems.* Englewood Cliffs, NJ. Prentice Hall, 2, 1995.

[93] Okuboyejo D. A., Olugbara O. O., Odunaike S. A., *Automating skin disease diagnosis using image classification.* In Proceedings of the World Congress on Engineering and Computer Science, 2, pp. 850-854, 2013.

[94] Olatunji S. O., Arif H., *Identification of Erythemato-Squamous skin diseases using extreme learning machine and artificial neural network.* ICTACT Journal of Softw Computing, 4(1), pp. 627 - 32, 2013.

[95] Ong C. S., Mary X., Canu S., Smola A. J., *Learning with non-positive kernels.* In Proceedings of the twenty-first international conference on Machine learning ACM., 81, July 2004.

[96] Osuna E., Freund R.,Girosi, F., *An improved training algorithm for support vector machines.* In Neural Networks for Signal Processing [1997] VII. Proceedings of the 1997 IEEE Workshop, pp. 276-285. IEEE, 1997.

[97] Ovidiu I., *Applications of support vector machines in chemistry.* Reviews in computational chemistry, 23, pp. 291 - 391, 2007.

[98] Parikh K. S., Shah T. P., Kota R., Vora R., *Diagnosing Common Skin Diseases using Soft Computing Techniques.* International Journal of

Bio-Science and Bio-Technology, 7(6), pp. 275 - 286, 2015. http://dx.doi.org/10.14257/ijbsbt.2015.7.6.28.

[99] Parikh K. S., Shah T. P., *Support Vector Machine- a Large Margin Classifier to Diagnose Skin Illnesses.* Procedia Technology, Elsevier, 23, pp. 369 - 375, 2016. doi: 10.1016/j.protcy.2016.03.039.

[100] Parikh K. S., Shah T. P., *Kernel Based Extreme Learning Machine in Identifying Dermatological Disorders.* International Journal of Innovative Science, Engineering & Technology , 3(10), pp. 370 - 375, 2016.

[101] Parikh K. S., Shah T. P., *Feature Selection Paradigm using Weighted Probabilistic Approach.* International Journal of Advanced Science and Technology, 100(3), pp. 1 - 14, 2017. http://dx.doi.org/10.14257/ijast.2017.100.01.

[102] Parikh K. S., Shah T. P., *Novel kernel to Diagnose Dermatological Disorders.* Journal of Applied Computer Science & Mathematics, Vol. 12(25), pp. 27-33, 2018. doi: 10.4316/JACSM.201801004.

[103] Pekalska E., Paclik P., Duin R. P., *A generalized kernel approach to dissimilarity-based classification.* Journal of machine learning research, 2, pp. 175 - 211, 2001.

[104] Platt J., *Sequential Minimal Optimization: A Fast Algorithm for Training Support Vector Machines.* 1998, CiteSeerX 10.1.1.43.4376.

[105] Powers D.M., *What the F-measure doesn't measure: Features, Flaws, Fallacies and Fixes.* arXiv preprint arXiv:1503.06410, 2015.

[106] Raghavendra S., Deka P. *Support vector machine applications in the field of hydrology: A review.* Applied soft computing,19, pp. 372 - 386, 2014.

[107] Rao S.S., Rao S.S. *Engineering optimization: theory and practice. John Wiley & Sons, 2009.*

[108] Renze J., Stover C., Weisstein E. W., *Inner Product.* MathWorld–A Wolfram Web Resource. http://mathworld.wolfram.com/InnerProduct.html.

[109] Rosen J., *Embedding of various relativistic Riemannian spaces in pseudo-Euclidean spaces.* Reviews of Modern Physics, 37(1), pp. 204, 1965.

[110] Rosenblatt F., *The perceptron: a probabilistic model for information storage and organization in the brain.* Psychological review, 65(6), pp. 386-408, 1958.

[111] Rosenblarr Frank., *Principles of Neurodynamics: Perceptrons and the Theory of Brain Mechanisms.* Washington DC: Spartan Books, 1962.

[112] Roth V., Laub J., Kawanabe M., Buhmann,J. M., *Optimal cluster preserving embedding of nonmetric proximity data.* IEEE Transactions on Pattern Analysis and Machine Intelligence, 25(12), pp. 1540 - 1551, 2003.

[113] Rumelhart D. E., Hinton G. E., Williams R. J., *Learning representations by back-propagating errors.* Nature, 323(6088), pp. 533 - 536, 1986. doi: 10.1038/323533108.

[114] Sánchez-Maroño N., Alonso-Betanzos A., Tombilla-Sanromn, M., *Filter methods for feature selectiona comparative study.* Intelligent Data Engineering and Automated Learning-IDEAL 2007, pp. 178-187, 2007.

[115] Sapna S., Tamilarasi A., Kumar M.P., *Backpropagation learning algorithm based on Levenberg Marquardt Algorithm.* Comp Sci Inform Technol (CS and IT), 2, pp. 393-398, 2012.

[116] Sasaki Y., *The truth of the F-measure.* Teach Tutor mater, 1(5), 2007.

[117] Schölkopf B., Burges C., Vapnik V., *Incorporating invariances in support vector learning machines.* Artificial Neural Networks-ICANN 96, pp. 47 - 52, 1996.

[118] Schölkopf B., Smola A. J., *Learning with Kernels: Support Vector Machines, Regularization, Optimization, and Beyond.* MIT Press, Cambridge, MA, 2001.

[119] Schölkopf B., Smola A. J., *Support vector machines. In The Handbook of Brain Theory and Neural Networks* editor: M. A. Arbib, MIT Press, 2nd edition, pp. 11191125, 2003.

[120] Schölkopf B., Smola A. J., *Kernel methods and support vector machines.* Encyclopedia of Biostatistics, 2003

[121] Serre D. *Matrices: Theory and applications.* Springer-Verlag New York, Inc, 2002.

[122] Shen K.Q., Ong C.J., Li X.P., Wilder-Smith E.P., *Feature selection via sensitivity analysis of SVM probabilistic outputs.* Machine Learning, 70(1), pp. 1-20, 2008.

[123] Shewchuk J.R., *An introduction to the conjugate gradient method without the agonizing pain.* Technical Report CMU-CS-94-125, School of Computer Science, Carnegie Mellon University, Pittsburgh, Pennsylvania, 1994.

[124] Sokolov D. D. (originator), *Encyclopedia of Mathematics. URL : http : //www.encyclopediaofmath.org/index.php?title = Pseudo-Euclidean_space&oldid* = 16529.

[125] Tafazzoli E., Saif M. *Application of combined support vector machines in process fault diagnosis.* American Control Conference, 2009.

[126] Tang J., Alelyani S., Liu, H., *Feature selection for classification: A review.* Data Classification: Algorithms and Applications, pp. 37, 2014.

[127] Vapnik V. N., Lerner A. Y., *Recognition of patterns with help of generalized portraits.* Avtomat. i Telemekh, 24(6), pp. 774 - 780, 1963.

[128] Van Gestel I. T., Baesens B., Garcia I. J., Van Dijcke P., *A support vector machine approach to credit scoring.* In Fourm Financier-Revue Bancaire et Financiaire Bank en Financiewezen-unknown, pp. 73-82, 2003.

[129] Vapnik V. N., Kotz S. *Estimation of dependences based on empirical data.* New York: Springer-Verlag; 1982.

[130] Vapnik V. N., *Estimation of Dependences Based on Empirical Data: Empirical Inference Science Afterword of 2006.* New York, NY: Springer Science+Business Media, Inc., 2006.

[131] Wang Y., Cao F., Yuan Y., *A study on effectiveness of extreme learning machine.* Neurocomputing, 74(16), pp. 2483-2490, 2011.

[132] Weisstein Eric W., *Convex Hull.* MathWorld–A Wolfram Web Resource. http://mathworld.wolfram.com/ConvexHull.html.

[133] Weisstein Eric W., *Pseudo-Euclidean Space.* MathWorld–A Wolfram Web Resource. http://mathworld.wolfram.com/Pseudo-EuclideanSpace.html.

[134] Wang L., Mu Z., Guo H., *Applications of support vector machine in the prediction of mechanical property of steel materials.* Journal of University of Science and Technology Beijing, Mineral, Metallurgy, Material, 13(6), pp. 512 - 515, 2006.

[135] Wachsmuth B. G., *Interactive Real Analysis, ver. 2.0.1(c) (c)* 1994-2017, http://www.mathcs.org/analysis/reals/topo/compact.html.

[136] Xie J., Wang, C., *Using support vector machines with a novel hybrid feature selection method for diagnosis of erythemato-squamous* Expert Systems with Applications, 38(5), pp. 5809-5815, 2011.

[137] Xie J., Lei J., Xie W., Shi Y., Liu X., *Two-stage hybrid feature selection algorithms for diagnosing erythemato-squamous diseases.* Health Inf Sci Syst., PMCID: PMC4453584, pp. 1 - 10, May 30, 2013. doi: 10.1186/2047-2501-1-10.

[138] Xinfeng Z., Yan, Z., *Application of support vector machine to reliability analysis of engine systems.* Indonesian Journal of Electrical Engineering and Computer Science, 11(7), pp. 3552-3560, 2013.

[139] Xu Z., King I., Lyu M.R.T., Jin R., *Discriminative semi-supervised feature selection via manifold regularization.* IEEE Transactions on Neural networks, 21(7), pp. 1033-1047, 2010.

[140] Ying Y., Campbell C., Girolami M., *Analysis of SVM with indefinite kernels.* In Advances in neural information processing systems, pp. 2205 - 2213, 2009.

[141] L. Yu, H. Liu, *Feature selection for high-dimensional data: A fast correlation-based filter solution* Twentieth International Conference on Machine Learning (ICML), Washington D.C. U.S.A., 2003.

[142] Zhang X., Yan Z., *Application of support vector machine to reliability analysis of engine systems.* TELKOMNIKA Indonesian Journal of Electrical Engineering, 11(7), pp. 3552 - 3560, 2013.

[143] Zhang z., *A gentle introduction to artificial neural networks.* Annals of Translational Medicine, 4(19), pp. 370, 2016. doi: 10.21037/atm.2016.06.20.

[144] Zhao W., Chellappa R., Phillips P.J., Rosenfeld, A., *Face recognition: A literature survey.* ACM computing surveys (CSUR), 35(4), pp. 399-458, 2003.

[145] Zhu Q.Y., Qin A.K., Suganthan P.N., Huang, G.B., *Evolutionary extreme learning machine.* Pattern recognition, 38(10), pp. 1759-1763, 2005.

[146] Zhou H., Zhang R., *Application of Support Vector Machine Model in Mine Gas Safety Level Prediction.* Indonesian Journal of Electrical Engineering and Computer Science, 12(5), pp. 4056-4062, 2014.