

Bibliography

- [1] http://www.npia.police.uk/en/docs/NPIA_business_plan_2008-11_final.pdf.
- [2] National Policing Improvement Agency (NPIA) 2009: 10.
- [3] <http://www.cclondon.com/> London Congestion Charging. 2006-05-10.
- [4] <http://www.stockholmsforsoket.se/> “The Stockholm Trials” congestion charging. 2006-05-10.
- [5] <http://realtruth.org/articles/110907-002.html>.
- [6] http://www.anpr.net/anpr_09/anpr_applicationareas.html.
- [7] <http://www.platerecognition.info/1106.htm>.
- [8] <http://www.nimr.mrc.ac.uk/research-facilities/safety-and-security/>.
- [9] “An Automatic license Plate Recognition System using Image Proc. and Neural Network,” Degree of Master of Science Thesis, California State University, Los Angeles, 2007.
- [10] Yao-Quan Yang, Jie Bai, Rui-Li Tian and Na Liu, “A Vehicle License Plate Recognition System Based on Fixed Color Collocation,” Proc. of the Fourth International Conference on Machine Learning and Cybernetics, 2005, pp.5394-5397.
- [11] J.A.G Nijhuis, M.H. ter Brugge and K.A. Helmholt, “Car License Plate Recognition with Neural Networks and Fuzzy Logic,” Proceedings of the ICNN, 1995, Vol. 5, pp. 2232-2236.

- [12] Tran Duc Duan, Tran Le Hong Du, Tran Vinh Phuoc and Nguyen Viet Hoang, "Building an Automatic Vehicle License-Plate Recognition System," Proc. of the Intl. Conf. in Computer Science RIVF, 2005, pp. 59-65.
- [13] D. S. Kim and S. I. Chien, "Automatic car license plate extraction using modified generalized symmetry transform and image warping," Proc. of the IEEE Int. Symp. Industrial Electronics, 2001, Vol. 3, pp. 2022-2027.
- [14] Mei Yu and Yong Deak Kim, "An Approach to Korean License Plate Recognition Based on Vertical Edge Matching," Proc. of the IEEE International Conference on Systems, Man, and Cybernetics, vol. 4, pp. 2975-2980.
- [15] M. H. ter Brugge, J. H. Stevens, J.A. G. Nijhuis and L. Spaanenbunrg, "License Plate Recognition Using DTCNNs," Proc. of the Fifth IEEE International Workshop on Cellular Neural Networks and their Applications, 1998, pp. 212-217.
- [16] D.M. Emiris and D.E. Koulouriotis, "Automated Optic Recognition of Alphanumeric Content in Car License Plates in a Semi-structured Environment," Proc. of International Conference On Image Processing, 2001, Vol. 3 pp. 50-53.
- [17] X. F. Hermida, F. M. Rodriguez, J. L. F. Lijo, F. P. Sande, and M. P. Iglesias, "A system for the automatic and real time recognition of VLP's (Vehicle License Plate)," in Lecture Notes in Computer Science, 1997, Vol. 1311, pp.552-558.
- [18] Joe C.H. Poon, Muffaddal Ghadiali, Gary M.T. Man, Lau Man Sheung, "A Robust Vision System for Vehicle License Plate Recognition Using Grey-Scale Morphology," Proc. of the IEEE International Symp. Industrial Electronics, 1995, vol. 1, pp. 394-399.
- [19] M. Sarfraz, M. J. Ahmed, and S. A. Ghazi, "Saudi Arabian license plate recognition system," in Proc. Int. Conf. Geom. Model. Graph., 2003, pp. 36-41.

- [20] EH Adelson, JR Bergen, “The plenoptic function and the elements of early vision,” *Computational Models of Visual Processing* (pp. 3-20). Cambridge, MA: MIT Press (1991).
- [21] Steven J. Gortler et al. “The lumigraph,” *Proceeding SIGGRAPH '96 Proceedings of the 23rd annual conference on Computer graphics and interactive techniques* Pages 43-54.
- [22] Levoy et al. “Light field rendering,” *Proceeding SIGGRAPH '96 Proceedings of the 23rd annual conference on Computer graphics and interactive techniques* Pages 31-42.
- [23] G. Wetzstein, I. Ihrke, D. Lanman, W. Heidrich, K. Akeley, R. Raskar, “Computational Plenoptic Imaging,” *ACM SIGGRAPH 2012 Course*, 2012.
- [24] Land MF, Nilsson D-E, “*Animal Eyes*,” Oxford UK: Oxford University Press, 2002.
- [25] Jorge Lopez-Moreno, Sunil Hadap, Erik Reinhard and Diego Gutierrez, “Compositing Images through Light Source Detection,” *Computers and Graphics*, 34(6), pp 698–707, Dec 2010.
- [26] Joseph L. Goldstein, “Venture science: climbing the ladder to telomerase, cognitive therapy and in situ hybridization,” *Nature Medicine* 12 (10): 1129-1132. Oct 2006.
- [27] Seetzen et al., “High dynamic range display systems,” in *SIGGRAPH, 2004: ACM SIGGRAPH 2004 Papers*, ACM Press, New York, NY, USA, 760-768.
- [28] Yang Zhang, Dave Bull and Erik Reinhard, “Perception-Based High Dynamic Range Video Compression with Optimal Bit-Depth Transformation,” *IEEE International Conference on Image Processing*, Brussels, Belgium, September 11-14, 2011.
- [29] R. S. Berns, Billmeyer and Saltzman’s principles of color technology, 3rd edition (New York: John Wiley & Sons, 2000).
- [30] R. Hunt, “*Measuring Colour*,” Fountain Press, England, 1998.

- [31] T. Hyvarinen, E. Herrala, and A. Dall’Ava, “Direct sight imaging spectrograph: a unique add-on componet brings spectral imaging to industrial applications,” in Proc. IS & T/SPIE’s Symposium on Electronic Imaging: Science and Technology (EI98), Vol. 3302-21 (1998).
- [32] F. S. Jon Y. Hardeberg and H. Brettel, “Multispectral color image capture using a liquid crystal tunable filter,” *Optical Engineering* 41 (2002).
- [33] W. R. Johnson, D. W. Wilson, W. Fink, M. Humayun, and G. Bearman, “Snapshot hyperspectral imaging in ophthalmology,” *Journal of Biomedical Optics* (2007).
- [34] Gershun, A. (1936). “The Light Field,” Moscow, 1936. Translated by P. Moon and G. Timoshenko in *Journal of Mathematics and Physics*, Vol. XVIII, MIT, 1939, pp. 51-151.
- [35] Ashdown, I. (1993). “Near-Field Photometry: A New Approach,” *Journal of the Illuminating Engineering Society*, Vol. 22, No. 1, Winter, 1993, pp. 163-180.
- [36] Parry Moon & Domina Eberle Spencer, “The Photic Field,” MIT Press, 267pp. (1981) (ISBN 978-0262131667).
- [37] Bolles et al., “Epipolar-plane image analysis: an approach to determing structure from motion,” *Int. J. Comp. Vision*, 1, 7-55, 1987.
- [38] Halle, M. “Holographic Stereograms as Discrete imaging systems,” in *SPIE Proc. Vol. 2176: Practical Holography VIII*, S.A. Benton, ed., pp. 73-84, 1994.
- [39] Wilburn et al. “Hardware-accelerated Dynamic Light Field Rendering,” in *Proceedings Vision, Modeling and Visualization VMV 2002*.
- [40] Lippmann, G., “Épreuves réversibles. Photographies intégrales,” *Comptes Rendus de l’Académie des Sciences* 146 (9): 446-451, March 1908.
- [41] Ives, U.S. Patent 725,567 “Parallax Stereogram and Process of Making Same,” application filed 25 September 1902, patented 14 April 1903.

- [42] D. Gabor, "A new microscopic principle," *Nature*, 161, 777 (1948).
- [43] "Flow Visualization," Second Edition. A book by Wolfgang Merzkirch.
- [44] "Algorithmic and Mathematical Principles of Automatic Number Plate Recognition Systems," PhD Thesis by Ondrej Martinsky, BRNO University of Technology.
- [45] W. Gao, X. Zhang, L. Yang, and H. Liu, "An improved Sobel edge detection," in *International Conference on Computer Science and Information Technology*, 2010.
- [46] M. Sarfraz, M. J. Ahmed, and S. A. Ghazi, "Saudi Arabian license plate recognition system," in *Proc. Int. Conf. Geom. Model. Graph.*, 2003, pp. 36-41.
- [47] D. Zheng, Y. Zhao, and J. Wang, "An efficient method of license plate location," *Pattern Recognit. Lett.*, vol. 26, no. 15, pp. 2431-2438, 2005.
- [48] K. Kanayama, Y. Fujikawa, K. Fujimoto, and M. Horino, "Development of vehicle-license number recognition system using real-time image processing and its application to travel-time measurement," in *Proc. IEEE Veh. Tech. Conf.*, May 1991, pp. 798-804.
- [49] V. Kamat and S. Ganesan, "An efficient implementation of the Hough transform for detecting vehicle license plates using DSPs," in *Proc. Real-Time Tech. Applicat. Symp.*, 1995, pp. 58-59.
- [50] C. Busch, R. Domer, C. Freytag, and H. Ziegler, "Feature based recognition of traffic video streams for online route tracing," in *Proc. IEEE Veh. Tech. Conf.*, vol. 3. May 1998, pp. 1790-1794.
- [51] S. Zhang, M. Zhang, and X. Ye, "Car plate character extraction under complicated environment," in *Proc. IEEE Int. Conf. Syst. Man Cybern.*, vol. 5. Oct. 2004, pp. 4722-4726.

- [52] C. Nelson Kennedy Babu and K. Nallaperumal, "An efficient geometric feature based license plate localization and recognition," *Int. J. Imaging Sci. Eng.*, vol. 2, no. 2, pp. 189-194, 2008.
- [53] M. J. Ahmed, M. Sarfraz, A. Zidouri, and W. G. Al-Khatib, "License plate recognition system," in *Proc. IEEE Int. Conf. Electron. Circuits Syst.*, vol. 2. Dec. 2003, pp. 898-901.
- [54] S. Wang and H. Lee, "Detection and recognition of license plate characters with different appearances," in *Proc. Int. Conf. Intell. Transp. Syst.*, vol. 2. 2003, pp. 979-984.
- [55] H.-J. Lee, S.-Y. Chen, and S.-Z. Wang, "Extraction and recognition of license plates of motorcycles and vehicles on highways," in *Proc. Int. Conf. Pattern Recognit.*, 2004, pp. 356-359.
- [56] V. Kamat and S. Ganesan, "An efficient implementation of the Hough transform for detecting vehicle license plates using DSPs," in *Proc. Real-Time Tech. Applicat. Symp.*, 1995, pp. 58-59.
- [57] D.-S. Kim and S.-I. Chien, "Automatic car license plate extraction using modified generalized symmetry transform and image warping," in *Proc. IEEE Int. Symp. Ind. Electron.*, vol. 3. Jun. 2001, pp. 2022-2027.
- [58] J. Xu, S. Li, and Z. Chen, "Color analysis for Chinese car plate recognition," in *Proc. IEEE Int. Conf. Robot. Intell. Syst. Signal Process.*, vol. 2. Oct. 2003, pp. 1312-1316.
- [59] J. Fung. "Computer Vision on the GPU," chapter 40, pages 649-665. Addison-Wesley, 2005.
- [60] Antonio Ruiz, Manuel Ujaldón, and Nicolás Guil, "Using Graphics Hardware for Enhancing Edge and Circle Detection," in Joan Martí, José Benedí, Ana Mendonça, and Joan Serrat, editors, *Pattern Recognition and Image Analysis*, volume 4478 of *Lecture Notes in Computer Science*, pages 234-241. Springer Berlin / Heidelberg, 2007. 10.1007/978-3-540-72849-8_30.

- [61] Yuancheng Luo and R. Duraiswami, "Canny edge detection on NVIDIA CUDA," in *Computer Vision and Pattern Recognition Workshops*, 2008. CVPRW '08. IEEE Computer Society Conference on, pages 1-8, 23-28 2008.
- [62] Jingfei Kong, Martin Dimitrov, Yi Yang, Janaka Liyanage, Lin Cao, Jacob Staples, Mike Mantor, and Huiyang Zhou, "Accelerating MATLAB Image Processing Toolbox functions on GPUs," in *GPGPU '10: Proceedings of the 3rd Workshop on General-Purpose Computation on Graphics Processing Units*, pages 75-85, New York, NY, USA, 2010. ACM.
- [63] Gonzalez, Rafael C. and Woods, Richard E. "Digital Image Processing," Prentice Hall, Inc. 2nd Edition. 2002.
- [64] Y. S. Soh, B. T. Chun, and H. S. Yoon, "Design of real time vehicle identification system," in *Proc. IEEE Int. Conf. Syst. Man Cybern.*, vol. 3. Oct. 1994, pp. 2147-2152.
- [65] R. Parisi, E. D. D. Claudio, G. Lucarelli, and G. Orlandi, "Car plate recognition by neural networks and image processing," in *Proc. IEEE Int. Symp. Circuits Syst.*, vol. 3. Jun. 1998, pp. 195-198.
- [66] V. Seetharaman, A. Sathyakhala, N. L. S. Vidhya, and P. Sunder, "License plate recognition system using hybrid neural networks," in *Proc. IEEE Annu. Meeting Fuzzy Inform.*, vol. 1. Jun. 2004, pp. 363-366.
- [67] C. Anagnostopoulos, T. Alexandropoulos, S. Boutas, V. Loumos, and E. Kayafas, "A template-guided approach to vehicle surveillance and access control," in *Proc. IEEE Conf. Adv. Video Signal Based Survei.*, Sep. 2005, pp. 534-539.
- [68] C.-T. Hsieh, Y.-S. Juan, and K.-M. Hung, "Multiple license plate detection for complex background," in *Proc. Int. Conf. Adv. Inform. Netw. Applicat.*, vol. 2. 2005, pp. 389-392.
- [69] F. Yang and Z. Ma, "Vehicle license plate location based on histogramming and mathematical morphology," in *Proc. IEEE Workshop Automa. Identification Adv. Tech.*, Oct. 2005, pp. 89-94.

- [70] R. Bremananth, A. Chitra, V. Seetharaman, and V. S. L. Nathan, "A robust video based license plate recognition system," in Proc. Int. Conf. Intell. Sensing Inform. Process., 2005, pp. 175-180.
- [71] H.-K. Xu, F.-H. Yu, J.-H. Jiao, and H.-S. Song, "A new approach of the vehicle license plate location," in Proc. Int. Conf. Parall. Distr. Comput. Applicat. Tech., Dec. 2005, pp. 1055-1057.
- [72] Y. S. Soh, B. T. Chun, and H. S. Yoon, "Design of real time vehicle identification system," in Proc. IEEE Int. Conf. Syst. Man Cybern., vol.3. Oct. 1994, pp. 2147-2152.
- [73] C.-N. E. Anagnostopoulos, I. E. Anagnostopoulos, V. Loumos, and E. Kayafas, "A license plate-recognition algorithm for intelligent transportation system applications," IEEE Trans. Intell. Trans. Syst., vol. 7, no. 3, pp. 377-392, Sep. 2006.
- [74] F. Kahraman, B. Kurt, and M. Gokmen, "License Plate Character Segmentation Based on the Gabor Transform and Vector Quantization," vol. 2869. New York: Springer-Verlag, 2003, pp. 381-388.
- [75] H. Caner, H. S. Gecim, and A. Z. Alkar, "Efficient embedded neural-network-based license plate recognition system," IEEE Trans. Veh. Tech., vol. 57, no. 5, pp. 2675-2683, Sep. 2008.
- [76] N. Qaiser, M. Hussain, N. Qaiser, A. Hanif, S. M. J. Rizvi, and A. JaIi, "Fusion of optimized moment based and gabor texture features for better texture classification," Proceedings of 8th International Multitopic Conference, pp. 41-48, 2004.
- [77] R. M. Haralick, K. Shanmugam, and I. Dinstein, "Textural features for image classification," IEEE Transactions on Systems, Man and Cybernetics, vol. 3, no. 6, pp. 610-621, 1973.
- [78] V. Antoniadis and A. Nandi, "Texture recognition or classification using statistics," IEEE Colloquium on Applied Statistical Pattern Recognition, pp. 10/1-10/6, 1999.

- [79] H. Lin, L. Wang, and S. Yang, "Regular-texture image retrieval based on texture-primitive extraction," *Image and Vision Computing*, vol. 17, pp. 51-63, January 1999.
- [80] F. O.Tuzel and P.Meer, "Region covariance: A fast descriptor and for detection and classification," in *Proc. of Image and Vision Computing*, (Auckland,New Zeland), 2004.
- [81] X. Shi, W. Zhao, and Y. Shen, "Automatic license plate recognition system based on color image processing," *Lecture Notes Comput. Sci.*, vol. 3483, pp. 1159-1168, 2005.
- [82] S. K. Kim, D. W. Kim, and H. J. Kim, "A recognition of vehicle license plate using a genetic algorithm based segmentation," in *Proc. Int. Conf. Image Process.*, vol. 2. 1996, pp. 661-664.
- [83] S. Yohimori, Y. Mitsukura, M. Fukumi, N. Akamatsu, and N. Pedrycz, "License plate detection system by using threshold function and improved template matching method," in *Proc. IEEE Annu. Meeting Fuzzy Inform.*, vol. 1. Jun. 2004, pp. 357-362.
- [84] W. Jia, H. Zhang, X. He, and M. Piccardi, "Mean shift for accurate license plate localization," in *Proc. IEEE Conf. Intell. Transp. Syst.*, Sep. 2005, pp. 566-571.
- [85] W. Jia, H. Zhang, and X. He, "Region-based license plate detection," *J. Netw. Comput. Applicat.*, vol. 30, no. 4, pp. 1324-1333, 2007.
- [86] F. Wang, L. Man, B. Wang, Y. Xiao, W. Pan, and X. Lu, "Fuzzy-based algorithm for color recognition of license plates," *Pattern Recognit. Lett.*, vol. 29, no. 7, pp. 1007-1020, 2008.
- [87] C.-N. E. Anagnostopoulos, I. E. Anagnostopoulos, I. D. Psoroulas, V. Loumos, and E. Kayafas, "License plate recognition from still images and video sequences: A survey," *IEEE Trans. Intell. Transp. Syst.*, vol.9, no. 3, pp. 377-391, Sep. 2008.

- [88] Z. Qin, S. Shi, J. Xu, and H. Fu, "Method of license plate location based on corner feature," in Proc. World Congr. Intell. Control Automat., vol.2. 2006, pp. 8645-8649.
- [89] J. Matas and K. Zimmermann, "Unconstrained license plate and text localization and recognition," in Proc. IEEE Int. Conf. Intell. Transp. Syst., Sep. 2005, pp. 225-230.
- [90] B.-F. Wu, S.-P. Lin, and C.-C. Chiu, "Extracting characters from real vehicle license plates out-of-doors," IET Comput. Vis., vol. 1, no. 1, pp. 2-10, 2007.
- [91] M. M. I. Chacon and S. A. Zimmerman, "License plate location based on a dynamic PCNN scheme," in Proc. Int. Joint Conf. Neural Netw., vol. 2. 2003, pp. 1195-1200.
- [92] K. Miyamoto, K. Nagano, M. Tamagawa, I. Fujita, and M. Yamamoto, "Vehicle license-plate recognition by image analysis," in Proc. Int. Conf. Ind. Electron. Control Instrum., vol. 3. 1991, pp. 1734-1738.
- [93] Robert, Christian, Casella and George, "Introducing Monte Carlo Methods with R," Springer-Verlag Berlin, Heidelberg 2009, ISBN:1441915753 9781441915757.
- [94] S. Draghici, "A neural network based artificial vision system for license plate recognition," Int. J. Neural Syst., vol. 8, no. 1, pp. 113-126, 1997.
- [95] H. Hontani and T. Koga, "Character extraction method without prior knowledge on size and position information," in Proc. IEEE Int. Veh. Electron. Conf., Sep. 2001, pp. 67-72.
- [96] B. K. Cho, S. H. Ryu, D. R. Shin, and J. I. Jung, "License plate extraction method for identification of vehicle violations at a railway level crossing," Int. J. Automot. Tech., vol. 12, no. 2, pp. 281-289, 2011.
- [97] W. T. Ho, H. W. Lim, Y. H. Tay, and Q. Binh, "Two-stage license plate detection using gentle Adaboost and SIFT-SVM," in Proc. 1st Asian Conf. Intell. Inform. Database Syst., 2009, pp. 109-114.

- [98] H. W. Lim and Y. H. Tay, "Detection of license plate characters in natural scene with MSER and SIFT unigram classifier," in Proc. IEEE Conf. Sustainable Utilization Development Eng. Tech., Nov. 2010, pp. 95-98.
- [99] A. Mohan, C. Papageorgiou, and T. Poggio, "Example-based object detection in images by components," *Pattern Analysis and Machine Intelligence, IEEE Transactions on*, vol. 23, pp. 349-361, 2001.
- [100] P. Viola, M. J. Jones, and D. Snow, "Detecting pedestrians using patterns of motion and appearance," in *Computer Vision, 2003. Proceedings. Ninth IEEE International Conference on*, 2003, pp. 734-741 vol.2.
- [101] N. Dalal and B. Triggs, "Histograms of oriented gradients for human detection," in *Computer Vision and Pattern Recognition, 2005. CVPR 2005. IEEE Computer Society Conference on*, 2005, pp. 886-893 vol. 1.
- [102] M.A.Turk and A.P.Pentland, "Face recognition using eigenfaces," in *Proc. of Computer Vision and Pattern Recognition*, pp 586-591, IEEE, June 1991b.
- [103] Yu Zhong, Kalle Karu, and Anil K. Jain, "Locating Text In Complex Color Images," *Pattern Recognition*, 1995, pp. 1523-1535.
- [104] J. C. Shim, C. Dorai, and R. Bolle, "Automatic Text Extraction from Video for Content-based Annotation and Retrieval," *Proc. of International Conference on Pattern Recognition*, 1998, Vol. 1, pp. 618-620.
- [105] R. Lienhart and F. Stuber, "Automatic Text Recognition In Digital Videos," *Proc.of SPIE*, 1996, pp. 180-188.
- [106] Feng Yang, Zheng Ma, "Vehicle License Plate Location Based on Histogram and Mathematical Morphology", *Proceedings of the Fourth IEEE Workshop on Automatic Identification Advanced Technologies (AutoID'05)*.
- [107] Choudhury A. Rahman, Wael Badawy, Ahmad Radmanesh, "A Real Time Vehicle's License Plate Recognition System," *Proceedings of the IEEE Conference on Advanced Video and Signal Based Surveillance (AVSS'03)*, pp.163-166.

- [108] R. Parisi, E.D.Di Claudio, G.Lucarelli, and G. Orlandi, "Car Plate Recognition by neural networks and image processing," Proceedings of the 1998 IEEE International Symposium on Circuits and Systems, (ISCAS '98).
- [109] E. R. Lee, P. K. Kim, and H. J. Kim, "Automatic recognition of a car license plate using color image processing," in Proc. IEEE Int. Conf. Image Process., vol. 2. Nov. 1994, pp. 301-305.
- [110] X. Xu, Z. Wang, Y. Zhang, and Y. Liang, "A method of multiview vehicle license plates location based on rectangle features," in Proc. Int. Conf. Signal Process., vol. 3. 2006, pp. 16-20.
- [111] M.-S. Pan, J.-B. Yan, and Z.-H. Xiao, "Vehicle license plate character segmentation," Int. J. Automat. Comput., vol. 5, no. 4, pp. 425-432, 2008.
- [112] M.-S. Pan, Q. Xiong, and J.-B. Yan, "A new method for correcting vehicle license plate tilt," Int. J. Automat. Comput., vol. 6, no. 2, pp. 210-216, 2009.
- [113] K. Deb, A. Vavilin, J.-W. Kim, T. Kim, and K.-H. Jo, "Projection and least square fitting with perpendicular offsets based vehicle license plate tilt correction," in Proc. SICE Annu. Conf., 2010, pp. 3291-3298.
- [114] TRIER, O.D. AND TAXT, T. "Evaluation of Binariazation Methods for Document Images," IEEE Transactions on Pattern Analysis and Machine Intelligence, 17 (3), 312-315, Mar 1995.
- [115] M.-S. Pan, J.-B. Yan, and Z.-H. Xiao, "Vehicle license plate character segmentation," Int. J. Automat. Comput., vol. 5, no. 4, pp. 425-432,2008.
- [116] P. Comelli, P. Ferragina, M. N. Granieri, and F. Stabile, "Optical recognition of motor vehicle license plates," IEEE Trans. Veh. Tech., vol. 44, no. 4, pp. 790-799, Nov. 1995.
- [117] X. Shi, W. Zhao, and Y. Shen, "Automatic License Plate Recognition System Based on Color Image Processing," Springer-Verlag vol. 3483, pp. 1159-1168, New York, 2005.

- [118] T. H. Wang, F. C. Ni, K. T. Li, and Y. P. Chen, "Robust license plate recognition based on dynamic projection warping," in the proceedings of IEEE International Conference on Networking, Sensing, and Control, pp. 784-788, Taiwan, 2004.
- [119] S. Nomura, K. Yamanaka, O. Katai, H. Kawakami, and T. Shiose, "A novel adaptive morphological approach for degraded character image segmentation," *Pattern Recognition Letters*, vol. 38, no. 11, pp. 1961-1975, 2005.
- [120] S. Nomura, K. Yamanaka, O. Katai, and H. Kawakami, "A new method for degraded color image binarization based on adaptive lightning on grayscale versions," *IEICE Transaction on Information System*, vol. E87-D, no. 4, pp. 1012-1020, 2004.
- [121] K. K. Kim, K. I. Kim, J. B. Kim, and H. J. Kim, "Learning-based approach for license plate recognition," in *Proc. IEEE Signal Process. Soc. Workshop Neur. Netw. Signal Process.*, vol. 2. Dec. 2000, pp.614-623.
- [122] Y. Cheng, J. Lu, and T. Yahagi, "Car license plate recognition based on the combination of principal component analysis and radial basis function networks," in *Proc. Int. Conf. Signal Process.*, 2004, pp.1455-1458.
- [123] C. A. Rahman, W. Badawy, and A. Radmanesh, "A real time vehicle's license plate recognition system," in *Proc. IEEE Conf. Adv. Video Signal Based Surveillance*, Jul. 2003, pp. 163-166.
- [124] H. A. Hegt, R. J. Haye, and N.A. Khan, "A high performance license plate recognition system," in *Proc. IEEE Int. Conf. Syst. Man Cybern.*, vol. 5. Oct. 1998, pp. 4357-4362.
- [125] B. Shan, "Vehicle license plate recognition based on text-line construction and multilevel RBF neural network," *J. Comput.*, vol. 6, no. 2, pp. 246-253, 2011.
- [126] F. Aghdasi and H. Ndungo, "Automatic license plate recognition system," in *Proc. AFRICON Conf. Africa*, vol. 1. 2004, pp. 45-50.

- [127] J. Barroso, E. Dagless, A. Rafael, and J. Bulas-Cruz, "Number plate reading using computer vision," in Proc. IEEE Int. Symp. Ind. Electron., Jul. 1997, pp. 761-766.
- [128] P. Soille, "Morphological Image Analysis: Principles and Applications," Berlin, Germany: Springer-Verlag, 1999.
- [129] R. C. Gonzalez and R. E. Woods, "Digital Image Processing," Addison-Wesley, Reading, MA, 1993.
- [130] Automatic car license plate J. Xu, S. Li, and Z. Chen, "Color analysis for Chinese car plate recognition," in Proc. IEEE Int. Conf. Robot. Intell. Syst. Signal Process., vol. 2. Oct. 2003, pp. 1312-1316.
- [131] C. Coetzee, C. Botha, and D. Weber, "PC based number plate recognition system," in the proceedings of IEEE International Symposium on Industrial Electronics, pp. 605-610, New Orleans, USA, 1998.
- [132] C. Busch, R. Domer, C. Freytag, and H. Ziegler, "Feature based recognition of traffic video streams for online route tracing," in Proc. IEEE Veh. Tech. Conf., vol. 3. May 1998, pp. 1790-1794.
- [133] D. Llorens, A. Marzal, V. Palazon, and J. M. Vilar, "Car License Plates Extraction and Recognition Based on Connected Components Analysis and HMM Decoding," Springer-Verlag, vol. 3522, pp. 571-578, New York, 2005.
- [134] R. Zunino and S. Rovetta, "Vector quantization for license-plate location and image coding," IEEE Transaction on Industrial Electronics, vol. 47, no.1, pp. 159-167, 2000.
- [135] A. Broumandnia, and M. Fathy, "Application of pattern recognition for Farsi license plate recognition," in the proceedings of International Conference on Graphics, Vision and Image Processing, Cairo, Egypt, 2005.
- [136] J. Jiao, Q. Ye, and Q. Huang, "A configurable method for multistyle license plate recognition," Pattern Recognit., vol. 42, no. 3, pp. 358-369, 2009.

- [137] P. Zhang and L. H. Chen, "A novel feature extraction method and hybrid tree classification for handwritten numeral recognition," *Pattern Recognit. Lett.*, vol. 23, no. 1, pp. 45-56, 2002.
- [138] H. E. Kocer and K. K. Cevik, "Artificial neural networks based vehicle license plate recognition," in *Proc. Comput. Sci.*, vol. 3. 2011, pp.1033-1037.
- [139] C. J. Ahmad and M. Shridhar, "Recognition of handwritten numerals with multiple feature and multistage classifier," *Pattern Recognit.*, vol.2, no. 28, pp. 153-160, 1995.
- [140] Y. S. Huang and C. Y. Suen, "A method of combining multiple experts for the recognition of unconstrained handwritten numerals," *IEEE Trans. Pattern Anal. Mach. Intell.*, vol. 17, no. 1, pp. 90-93, Jan. 1995.
- [141] H. J. Kang and J. Kim, "Probabilistic framework for combining multiple classifier at abstract level," in *Proc. Int. Conf. Document Anal. Recognit.*, vol. 1. 1997, pp. 870-874.
- [142] Cortes and Vapnik, "Support-Vector Networks," *Machine Learning*, 20, 273-297 (1995).
- [143] Burges, "A Tutorial on Support Vector Machines for Pattern Recognition," *Data Mining and Knowledge Discovery* 2, 121-167, 1998.
- [144] A book on "Statistical Learning Theory," by Vladimir N. Vapnik, Sept.1998.
- [145] S. Z. Wang and H. J. Lee, "A cascade framework for a real-time statistical plate recognition system," *IEEE Trans. Inform. Forensics Security*, vol. 2, no. 2, pp. 267-282, Jun. 2007.
- [146] Y. P. Huang, S. Y. Lai, and W. P. Chuang, "A template-based model for license plate recognition," in the proceedings of IEEE International Conference on Networking, Sensing and Control, pp. 737-742, Taiwan, 2004.
- [147] T. Nukano, M. Fukumi, and M. Khalid, "Vehicle license plate character recognition by neural networks," in *Proc. Int. Symp. Intell. Signal Process. Commun. Syst.*, 2004, pp. 771-775.

- [148] R. Juntanasub and N. Sureerattanan, "A simple OCR method from strong perspective view," in Proc. Appl. Imagery Pattern Recognit. Workshop, 2004, pp. 235-240.
- [149] M.-A. Ko and Y.-M. Kim, "Multifont and multisize character recognition based on the sampling and quantization of an unwrapped contour," in Proc. Int. Conf. Pattern Recognit., vol. 3. 1996, pp. 170-174.
- [150] M.-K. Kim and Y.-B. Kwon, "Recognition of gray character using Gabor filters," in Proc. Int. Conf. Inform. Fusion, vol. 1. 2002, pp.419-424.
- [151] S. N. H. S. Abdullah, M. Khalid, R. Yusof, and K. Omar, "License plate recognition using multicluster and multilayer neural networks," Inform. and Commun. Tech., vol. 1, pp. 1818-1823, Apr. 2006.
- [152] S. N. H. S. Abdullah, M. Khalid, R. Yusof, and K. Omar, "Comparison of feature extractors in license plate recognition," in Proc. Asia Int. Conf. Modeling Simul., 2007, pp. 502-506.
- [153] Hagan, M. T., H. B. Demuth, and M. H. Beale, "Neural Network Design," PWS Publishing, Boston, 1996.
- [154] S. Haykin, "Neural Networks: A Comprehensive Foundation," 2nd ed. Englewood Cliffs, NJ: Prentice-Hall, 1999.
- [155] D. Gabor, "Theory of Communication," Journal of IEE, Vol. 93, Part III, No. 26, 1946, pp. 429-457.
- [156] J. B. Allen, "Short term spectral analysis, synthesis, and modification by discrete Fourier transform," IEEE Transactions on Acoustics, Speech, Signal Processing, ASSP-25: 235 - 238, 1977.
- [157] A. Grossman and J. Morlet, "Decomposition of Hardy functions into square integrable wavelets of constant shape," SIAM J. Math. Anal, 15: 723 - 736,1984.
- [158] Samik Raychaudhuri, "Introduction to Monte Carlo Simulation," IEEE Proceedings of the 2008 Winter Simulation Conference, pp.91-100, 2008.

- [159] Radon, Johann (1917), "Über die Bestimmung von Funktionen durch ihre Integralwerte längs gewisser Mannigfaltigkeiten," *Berichte über die Verhandlungen der Königlich-Sächsischen Akademie der Wissenschaften zu Leipzig, Mathematisch-Physische Klasse* [Reports on the proceedings of the Royal Saxonian Academy of Sciences at Leipzig, mathematical and physical section] (Leipzig: Teubner) (69): 262-277; Translation: Radon, J.; Parks, P.C. (translator) (1986), "On the determination of functions from their integral values along certain manifolds", *IEEE Transactions on Medical Imaging* 5 (4): 170-176, doi:10.1109/TMI.1986.4307775, PMID 18244009.
- [160] S.Davidson, "The Use Of Automatic Number Plate Recognition In Managing To The Boots Company Headquarter Site," *IEEE Int. Conf. on Security Technology*, London, 2001.
- [161] R.A. Lotufo, A.D. Morgan, and AS. Johnson, 1990, "Automatic Number-Plate Recognition," *Proceedings of the IEE Colloquium on Image analysis for Transport Applications*, V01.035, pp.6/1-6/6, February, 1990.
- [162] M. Abolghasemi and A. Ahmadifard, "A car plate identification system base on IFT transform," in *proceedings of IKT 2007 conference Ferdowsi University, Mashhad, Iran*.
- [163] A. Zamani and M. Movahedi, "Car plate identification using morphology and constant moments transform," in *proceedings of IKT 2007 Conference Ferdowsi University, Mashhad, Iran*.
- [164] J.A.G. Nijhuis, M.H. Brugge, K.A. Helmholt, "License Plate Recognition Using DTCNNs," *Security Technology*. 1997. *Proceedings 1998 Fifth IEEE International Workshop on Publish*. 1998, pp 212-217.
- [165] Y. Cui, Q. Huang, "Automatic license extraction from moving vehicles," In *The Int. Conf. On Image Processing*, 3- volume set, 1997.
- [166] Rahman c.A. , Badawy W., Radmanesh A., "A real time vehicle's license plate recognition system.," *Proceedings. IEEE Conference on Advanced Video and Signal Based Surveillance*, 2003, pp. 163-166.

- [167] B. Hongliang and L. Changping, "A hybrid license plate extraction method based on edge statistics and morphology," in Proceedings of the Pattern Recognition, 17th International Conference on (ICPR'04) Volume 2 - Volume 02, 2004, pp. 831-834.
- [168] W. Wei, "An Automatic Method of Location for Number-Plate Using Color Feature," IEEE ICIP, 2001.
- [169] Y.-C. Chiou, L. W. Lan, C.-M. Tseng, and C.-C. Fan, "Optimal locations of license plate recognition to enhance the origin-destination matrix estimation," in Proc. Eastern Asia Soc. Transp. Stu., vol. 8. 2011, pp. 1-14.
- [170] M.-L. Wang, Y.-H. Liu, B.-Y. Liao, Y.-S. Lin, and M.-F. Horng, "A vehicle license plate recognition system based on spatial/frequency domain filtering and neural networks," in Proc. Comput. Collective Intell. Tech. Applicat., LNCS 6423. 2010, pp. 63-70.
- [171] K. Deb, H.-U. Chae, and K.-H. Jo, "Vehicle license plate detection method based on sliding concentric windows and histogram," J.Comput., vol. 4, no. 8, pp. 771-777, 2009.
- [172] Z. Chen, C. Liu, F. Chang, and G. Wang, "Automatic license plate location and recognition based on feature salience," IEEE Trans. Veh. Tech., vol. 58, no. 7, pp. 3781-3785, 2009.
- [173] D.-J. Kang, "Dynamic programming-based method for extraction of license plate numbers of speeding vehicle on the highway," Int. J. Automotive Tech., vol. 10, no. 2, pp. 205-210, 2009.
- [174] <http://en.wikipedia.org/wiki/Grayscale>
- [175] A. Jain and B. Yu, "Automatic text location in images and video frames," Pattern Recognition, vol. 31, no. 12, pp. 2055-2076, 1998.
- [176] B. Epshtein, E. Ofek, and Y. Wexler, "Detecting text in natural scenes with stroke width transform," in Proc. of CVPR, 2010.

- [177] C. Yi and Y. Tian, "Text string detection from natural scenes by structure-based partition and grouping," *IEEE Trans. on Image Processing*, vol. 20, no. 9, pp. 2594-2605, 2011.
- [178] P. Shivakumara, T. Q. Phan, and C. L. Tan, "A laplacian approach to multi-oriented text detection in video," *IEEE Trans.PAMI*, vol. 33, no. 2, pp. 412-419, 2011.
- [179] L. Neumann and J. Matas, "A method for text localization and recognition in real-world images," in *Proc. of ACCV*, 2010.
- [180] H. Chen, S. Tsai, G. Schroth, D. Chen, R. Grzeszczuk, and B. Girod, "Robust text detection in natural images with edge-enhanced maximally stable extremal regions," in *Proc. of ICIP*, 2011.
- [181] J. Canny, "A Computational Approach to Edge Detection," *IEEE Trans. PAMI*, 8(6):679-698, 1986.
- [182] Clemens Arth, Florian Limberger and Horst Bischof, "Real-Time License Plate Recognition on an Embedded DSP-Platform," *Proceedings of IEEE conference on Computer Vision arnd Pattern Recognition*, pp 1-8, June 2007.
- [183] Mariana and Mario, "Parameter Estimation for Blind and Non-Blind Deblurring Using Residual Whiteness Measures," *IEEE Trans. on Image Processing*, 2013.
- [184] Ravuda, et al., "Review of image processing techniques for automatic detection of eye diseases," *2012 Sixth International Conference on Sensing Technology*, 2012.
- [185] A.M. Bazen and S.H. Gerez, "Systematic methods for the computation of the directional fields and singular points of fingerprints," *IEEE Trans Pattern Anal. Mechine Intell.*, vol. 24, no. 7, pp.905-919, 2002.
- [186] F. Stulp, E. Theodorou, and S. Schaal, "Reinforcement Learning with Sequences of Motion Primitives for Robust Manipulation," *IEEE Transactions on Robotics*, 28(6), pp.1360-1370, 2012.

- [187] Marco Mammarella et.al, "Comparing Optical Flow Algorithms Using 6-DOF Motion of Real-World Rigid Objects," in IEEE Trans on Systems, Man, and Cybernetics - Part C: Applications and Reviews, vol. 42, no.6., Nov. 2012.
- [188] Orkun Alatas et.al, "Spatio-Temporal Regularity Flow (SPREF): Its Estimation and Applications," IEEE Trans for circuits & systems for video technology, vol.17, no.5, May 2007.
- [189] Kongfeng Zhu et. al, "A no-reference video quality assessment based on Laplacian pyramids," Intl. Conf. on Image Processing, pp.49-53, 2013.
- [190] Yang Chunke, "A new gradient-based optical flow method and its application to motion segmentation," 26th IEEE Annual Conf. of Industrial Electronics Society, vol.2, pp.1225-1230, Oct. 2000.
- [191] Christian Richardt et al., "Coherent Spatio-Temporal Filtering, Unsampling and Rendering of RGBZ Videos," published by Blackwell Publishing, 9600 Garsington Road, Oxford OX4 2DQ, UK and 350 Main Street, Malden, MA 02148, USA. J. Padhye, V. Firoiu, and D. Towsley, "A stochastic model of TCP Reno congestion avoidance and control," Univ. of Massachusetts, Amherst, MA, CMPSCI Tech. Rep. 99-02, 1999.
- [192] Vinicius, P., "Blob Motion Statistics for Pedestrian Detection," in IEEE International Conference on Digital Image Computing Techniques and Applications, pp 442-447, Dec 2011.
- [193] Bozinovic, R.M., Srihari, S.N, "Off-line cursive script word recognition," IEEE Trans. Pattern Anal. Machine Intell. 11(1), 69-83,1989.
- [194] Louisa Lam, Seong-Whan Lee, Ching Y. Suen, "Thinning Methodologies-A Comprehensive Survey," IEEE Trans. on Pattern Analysis and Machine Intelligence, Vol.14, No.9, Sept 1992.
- [195] T.Y. Zhang and C.Y. Suen, "A Fast Parallel Algorithm for Thinning Digital Patterns," Communications of the ACM, Vol.27 No.3, March 1984.

- [196] Carlo Arcelli, Gabriella Sanniti Di Baja, Luca Serino, "The $\langle 3,4,5 \rangle$ curvilinear skeleton," DGCI'09 Proceedings of the 15th IAPR international conference on Discrete geometry for computer imagery. pp.409-420, Springer-Verlag Berlin, Heidelberg.
- [197] Marr, David, and Ellen Hildreth, "Theory of edge detection," Proc. Royal Society of London, B, 207 (1980), 187-217.
- [198] M. Kass, A. Witkin, and D. Terzopoulos, "Snake: Active Contour Models," International Journal of Computer Vision, vol. 1, no.4, pp.321-331, 1988.
- [199] R. Cipolla and A. Blake, "The dynamic analysis of apparent contours," Proc. 3rd International Conf. on Computer Vision9 (1992), 83-112.
- [200] O'Farrell, M.; Lewis, E.; Flanagan, C.; Lyons, W.B.; Jackman, N., "Controlling a large-scale industrial oven by monitoring the food quality, both internally and externally, using an optical fibre based system," Sensors, 2003. Proceedings of IEEE , vol.1, no., pp.368-371 Vol.1, 22-24 Oct. 2003.
- [201] Enyong Hu; Hui Wang; Jianhua Wang; Song Lu; Lei Tian, "Study on pattern recognition model based on principal component analysis and radius basis function neural network," Computer Science and Automation Engineering (CSAE), 2011 IEEE International Conference on , vol.2, no., pp.388-390, 10-12 June 2011.
- [202] Cootes T., Taylor C., Cooper D., and Graham J, "Active shape models - their training and application," Computer Vision and Image Understanding, 61(1): pp. 38-59, 1995.
- [203] Andreas Lanities, "Applications of point distribution models in handwritten optical character recognition and face recognition," Transfer report, Dept. of Medical Biophysics, University of Manchester, 1992.
- [204] Andreas Lanities, C.J. Taylor and F. Cootes, "A Generic System for Classifying Variable Objects Using Flexible Template Matching," Dept. of Medical Biophysics, University of Manchester, 1992.

- [205] Naccache N.J., Shinghal R., "SPTA - A Proposed Algorithm for Thinning Binary Patterns," *Communications of the ACM*, Vol. 29, No.3, pp. 239-242, 1986.
- [206] Saha P.K et al, "A single scan Boundary Removal Thinning Algorithm for 2-D Binary Object," *Pattern Recognition*, Vol. 14, No. 3 pp. 173-179, 1993.
- [207] Lu H.E., Wang P.S.P., "A comment on fast parallel algorithm for thinning digital patterns," *Communications of the ACM*, Vol. 29, No.3, pp. 239-242, 1986.
- [208] Lam and Suen, "An evaluation of parallel thinning algorithm for character recognition," *IEEE Trans. On PAMI*, Vol. 17, No.9, pp. 914-919, 1995.
- [209] L. Fletcher, "Optimizing the Number of Hidden Nodes of a Feed forward Artificial Neural Network," *Neural Networks Proceedings, IEEE World Congress on Computational Intelligence. The 1998 IEEE International Joint Conference on (Volume:2)*, pp.1608-1612, May 1998.