



Daftar Pustaka

- [1] F. Parvini dan C. Shahabi, "An algorithmic approach for static and dynamic gesture recognition utilising mechanical and biomechanical characteristics," *International Journal on Bioinformatics Research and Applications*, vol. 3, no. 1, pp. 4-23, 2007.
- [2] A. K. Alvi, M. Y. B. Azhar, M. Usman dan S. R. R. U. R. I. A. Suleman Mumtaz, "Pakistan Sign Language Recognition Using Statistical Template Matching," *Statistical Template Matching*, vol. 3, 2005.
- [3] M. Geetha dan M. U. C, "A Vision Based Recognition of Indian Sign Language Alphabets and Numerals Using B-Spline Approximation," *International Journal on Computer Science and Engineering (IJCSE)*, vol. 4, no. 3, pp. 406-415, March 2012.
- [4] D. Stein, P. Dreuw, H. Ney, S. Morrissey dan A. Way, "Hand in Hand: Automatic Sign Language to English Translation," *TMI-07 - Proceedings of The 11th Conference on Theoretical and Methodological Issues in Machine Translation*, 7-9 September 2007.
- [5] D. Kelly, "Computational Models for the Automatic Learning and Recognition of Irish Sign Language," Department of Computer Science National University of Ireland, Maynooth Maynooth, Co.Kildare, Ireland November, 2010, 2010.
- [6] J. L. Hernandez-Rebollar, N. Kyriakopoulos dan R. W. Lindeman, "A New Instrumented Approach For Translating American Sign Language Into Sound And Text," *Proceedings of the Sixth IEEE International Conference on Automatic Face and Gesture Recognition (FGR'04)*, 2004.
- [7] T. Starner dan A. Pentland, "Real-time American Sign Language recognition using desk and wearable computer based video," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 20, pp. 1371-1375, 1998.
- [8] N. Tanibata, N. Shimada dan Y. Shirai, "Extraction of Hand Features for Recognition of Sign Language Words," dalam *International Conference on Vision Interface*, 2002.
- [9] B.-L. Tsai dan C.-L. Huang, "A Vision Based Taiwanese Sign Language Recognition System," *IEEE Computer Society*, pp. 3683 - 3686, 2010.
- [10] D. Kelly, J. R. Delannoy, J. M. Donald dan C. Markham, "Automatic Recognition of Head Movement Gestures in Sign Language Sentences," *CICT 2009 : proceedings of the China-Ireland information and communications technologies conference.*, pp. 142-145, 2009.
- [11] Arulselvi dan Tamarai, "Sign Language Recognition System Using Finger Spelling," *Middle-East Journal of Scientific Research*, vol. 20, no. 8, pp. 1006-1011, 2014.
- [12] N. El-Bendary, H. M. Zawbaa, M. S. Daoud, A. E. Hassanien dan K. Nakamatsu, "ArSLAT: Arabic Sign Language Alphabets Translator," *International Journal of Computer Information Systems and Industrial Management Applications.*, vol. 3, pp. 498-506, 2011.
- [13] J. Singha dan K. Das, "Indian Sign Language Recognition Using Eigen Value Weighted Euclidean distance Based Classification Technique," *International Journal of Advanced Computer Science and Applications*, vol. 4, no. 2, pp. 188-195, 2013.
- [14] D. Karthikeyan dan M. G. Muthulakshmi, "English Letters Finger Spelling Sign Language Recognition System," *International Journal of Engineering Trends and Technology*, vol. 10, no. 7, pp. 334-339, 2014.
- [15] F. Asriani dan H. Susilowati, "Pengenalan Isyarat Tangan Statis pada Sistem Isyarat Bahasa Indonesia Berbasis Jaringan Syaraf Tiruan Perambatan Balik," *Makara Teknologi*, vol. 14, no. 2, 2010.
- [16] R. Yang, "Gesture Recognition Using Hidden Markov Models from Fragmented Observations," *IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, vol. 1, 2006.



- [17] E. Supriyati dan H. Tjandrasa, "Sistem Pengenalan Bahasa Isyarat Indonesia Berbasis Sensor dengan ANMBP (Adaptive neighborhood based Modified Back Propagation)," dalam *Proceeding CITEE*, Yogyakarta, 2011.
- [18] E. Sánchez-Nielsen, L. Antón-Canalís dan M. Hernández-Tejera, "Hand Gesture Recognition for Human-Machine Interaction," *Journal of WSCG*, vol. 12, no. I-3, 2003.
- [19] H. Kim dan D. Felner, "Interaction with Hand Gesture for a Back Projection Wall," *Computer Graphics International*, 2004.
- [20] J. Wachs, H. Stern, Y. Edan, M. Gillam, C. Feied, M. Smith dan J. Handler, "A Real-Time Hand Gesture Interface for Medical Visualization Applications," *Advances in Soft Computing*, vol. 36, pp. 153-163, 2006.
- [21] Y. Beifang, J. Frederick C. Harris, S. M. Dascalu dan A. Errol, "User Aspects of a Human-Hand Simulation System," *Journal of Systems, Cybernetics, and Informatics*, 2006.
- [22] Q. Chen, "Real-Time Vision Based Hand Tracking and Gesture Recognition," Ottawa-Carleton Institute for Electrical and Computer Engineering, School of Information Technology and Engineering, Faculty of Engineering, Ottawa University, Ottawa, Canada, 2008.
- [23] D. Persson dan B. Samvik, "A System for Real Time Gesture Recognition," Faculty of Engineering Centre for Mathematical Sciences Mathematics, Lund University, 2009.
- [24] R. Hartanto dan M. N. Aji, "Perancangan Awal Antarmuka Gesture Tangan berbasis Visual," *Jurnal Nasional Teknik Elektro dan Teknologi Informasi*, vol. 1, no. 1, pp. 36-43, Mei 2012.
- [25] Y. N. Khan dan S. A. Mehdi, "Sign Language Recognition using Sensor Gloves," dalam *9th International Conference on Neural Information Processing*, 2002.
- [26] A. A. Linsie dan J. Mangaiyarkarasi, "Hand Gesture Recognition Using MEMS For Specially Challenged People," *International Journal of VLSI and Embedded System - IJVES*, vol. 4, no. 2, pp. 238-241, March - April 2013.
- [27] M. Ben-Ari, *Principles of Concurrent and Distributed Programming*, Prentice Hall, 1990, p. 164.
- [28] J. Martin, *Programming Real-time Computer System*, Englewood Cliffs, New York: Prentice Hall, 1965, p. 4.
- [29] J. Trmal, M. Hru'uz, J. Zelinka, P. Campr dan L. M'uller, "Feature Space Transforms for Czech Sign-Language Recognition," dalam *Proceedings of Interspeech 2008 incorporating SST 2008*, 2008.
- [30] M. M. Zaki dan S. I. Shaheen, "Sign language recognition using a combination of new vision based features," *Pattern Recognition Letters*, vol. 32, p. 572-577, 2011.
- [31] M. A. Rahman, A. -U. -. Ambia dan M. Aktaruzzaman, "Recognition Static Hand Gesture of Alphabetin ASL," *IJCIT*, vol. 2, no. 01, 2011.
- [32] I. N. Sandjaja dan P. Nelson Marcos, "Sign Language Number Recognition," dalam *Fifth International Joint Conference on INC, IMS and IDC*, 2009.
- [33] R. Yang, S. Sarkar dan B. Loeding, "Enhanced Level Building Algorithm for the Movement Epenthesis Problem in Sign Language Recognition," *IEEE Conference on Computer Vision and Pattern Recognition*, pp. 1-8, 17-22 June 2007.
- [34] R. Yang, S. Sarkar dan B. Loeding, "Handling Movement Epenthesis and Hand Segmentation Ambiguities in Continuous Sign Language Recognition Using Nested Dynamic Programming," *IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE*, vol. 32, no. 3, pp. 462-477, March 2010.
- [35] M. Iqbal dan E. Supriyati, "Ekstraksi Ciri Pada Pengenalan Sistem Isyarat Bahasa Indonesia Berbasis Sensor Flex Dan Accelerometer," dalam *Seminar Nasional Embedded System*, Bandung, 2012.
- [36] P. W. Vamplew, "Recognition of Sign Language Using Neural Networks," 1996.
- [37] Ravikiran, K. Mahesh, S. Mahishi, D. R, S. S dan N. V. Pujari, "Finger Detection for Sign Language Recognition," dalam *Intenational MultiConference of Engineers and Comuter Scientists*, Hongkong, 2009.



- [38] A. Licsár dan T. Szirányi, "Dynamic Training of Hand Gesture Recognition System," dalam *17th International Conference on Pattern Recognition*, 2004.
- [39] D. G. Lowe, "Object Recognition from Local Scale-Invariant Features," Proc. of the International Conference on Computer Vision, Corfu, 1999.
- [40] D. G. Lowe, "Distinctive Image Features from Scale-Invariant Keypoints," *International Journal of Computer Vision*, 2004.
- [41] P. Chakraborty, P. Sarawgi, A. Mehrotra, G. Agarwal dan R. Pradhan, "Hand Gesture Recognition: A Comparative Study," *Proceedings of the International MultiConference of Engineers and Computer Scientists*, vol. 1, 19-21 March 2008.
- [42] D. Rybach, *Appearance-Based Features for Automatic Continuous Sign Language Recognition*, Rheinisch-Westfälische Technische Hochschule Aachen, 2006.
- [43] M. B. Kaâniche, "human Gesture Recognition," Nice University, Sophia Antipolis, 2009.
- [44] A. K. Jain, R. P. W. Duin dan J. Mao, "Statistical Pattern Recognition: A Review," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 22, no. 1, pp. Page 4-37, January 2000.
- [45] Q. Chen, E. M. Petriu dan X. Yang, "A comparative study of Fourier descriptors and Hu's seven moments for image recognition," dalam *IEEE Canadian Conference on Electrical and Computer Engineering, CCECE*, Ontario, Canada, 2004.
- [46] H. S. Neoh dan A. Hazanchuk, "Adaptive Edge Detection for Real-Time Video Processing using FPGAs," *Jurnal of Multimedia (JMM)*, 2005.
- [47] P. Hojoon, "A method for Controlling Mouse Movement using Real-Time Camera," *Brown Computer Science*, 2010.
- [48] G. Bradsky dan A. Kaehler, *Learning OpenCV*, Sebastopol: O'Reilly Media Inc., 2008.
- [49] M. M. Youssef, *Hull Convexity Defect Feature for Human Action Recognition*, The School of Engineering of the University of Dayton, 2011.
- [50] Intel, "Open Source Computer Vision Library," 2001.
- [51] J. Križaj, V. Štruc dan N. Pavešić, "Adaptation of SIFT features for robust face recognition," vol. 1, pp. 394-404, 2010.
- [52] UNESCO, *Merangkul Perbedaan: Perangkat untuk Mengembangkan Lingkungan Inklusif Ramah terhadap Pembelajaran*, IDPN Indonesia, Arbeiter-Samariter-Bund, Handicap International., 2009.
- [53] K. S. R. INDONESIA, "PANTI SOSIAL BINA RUNGU WICARA "MELATI" JAKARTA," 1 2010. [Online]. Available: <http://melati.depsos.go.id/modules.php?name=Content&pa=showpage&pid=14>. [Diakses 28 11 2012].
- [54] S. ASL, "American Sign Language Alphabet," 2012. [Online]. Available: <http://www.start-american-sign-language.com/printable-sign-language-alphabet.html>. [Diakses 28 11 2012].
- [55] *Panduan Praktis Sistem Isyarat Bahasa Indonesia*, Departemen Sosial RI, Direktorat Pelayanan dan Rehabilitasi Sosial Penyandang Cacat, 2008.
- [56] M. Iqbal, I. K. E. Purnama dan M. H. Purnomo, "Pengenalan Bahasa Isyarat Indonesia Berbasis Sensor Accelerometer dan Sensor Flex Menggunakan Dynamic Time Warping," dalam *The 12TH Seminar on Intelligent Technology and Its Applications*, Surabaya, 2011.
- [57] K. Sriharipriya, K. Aarthy, T. Keerthana, S. Menaga dan S. Monisha, "Flex Sensor Based Nonspecific -User Hand Gesture Recognition," *International Journal of Innovative Research & Studies*, vol. 2, no. 5, pp. 214-220, 2013.
- [58] C. Vogler dan D. Metaxas, "Parallel Hidden Markov Models for American Sign Language Recognition," dalam *International Conference on Computer Vision*, Kerkyra, 1999.
- [59] C. Vogler dan D. Metaxas, "Adapting Hidden Markov Models for ASL Recognition by Using Three-dimensional Computer Vision Methods," dalam *IEEE International Conference on Systems, Man and Cybernetics*, Orlando, 1997.



- [60] MSDN, "Kinect for Windows Sensor," [Online]. Available: <https://msdn.microsoft.com/en-us/library/jj131033.aspx>. [Diakses May 2015].
- [61] INTEL. [Online]. Available: <http://click.intel.com/intel-realsense-developer-kit.html>. [Diakses 31 May 2015].
- [62] V. Koifman, "Image Sensor World," [Online]. Available: <http://image-sensors-world.blogspot.com/2014/12/intel-realsense-cameras.html>. [Diakses 31 May 2015].
- [63] R. Caula, "Design Boom," 20 September 2013. [Online]. Available: <http://www.designboom.com/technology/hp-envy-17-is-a/>. [Diakses 31 May 2015].
- [64] A. Colgan, "How Does the Leap Motion Controller Work?," 9 Agust 2014. [Online]. Available: <http://blog.leapmotion.com/hardware-to-software-how-does-the-leap-motion-controller-work/>. [Diakses 31 May 2015].
- [65] P. Sykora, P. Kamenca dan R. H. , "Comparison of SIFT and SURF Methods for Use on Hand Gesture Recognition based on Depth Map," dalam *2014 AASRI Conference on Circuit and Signal Processing*, 2014.
- [66] R. Hartanto, A. Susanto dan P. I. Santosa, "Preliminary Design of Static Indonesian Sign Language Recognition System," dalam *ICITEE 2013*, Yogyakarta, 2013.
- [67] O. Team, "The OpenCV Reference Manual - Release 2.4.8.0," 2013.
- [68] Y. Zhang, L. Peng, B. Li dan J.-K. Peir, "Architecture comparison between Nvidia and ATI GPUs: Computation Parallelism and Data Communications," dalam *Workload Characterization (IISWC), 2011 IEEE International Symposium on*, Austin, TX, 2011.
- [69] K. O. Rodriguez dan G. C. Chavez, "Finger Spelling Recognition from RGB-D Information Using Kernel Descriptor," dalam *Graphics, Patterns and Images (SIBGRAPI), 2013 26th SIBGRAPI - Conference on*, Arequipa, 2013.
- [70] S. Nayak, S. Sarkar dan B. Loeding, "Automated Extraction of Signs from Continuous Sign Language Sentences using Iterated Conditional Modes," dalam *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2009.
- [71] M. Zahedi, P. Dreuw, D. Rybach, T. Deselaers dan H. Ney, "Geometric Features for Improving Continuous Appearance-based Sign Language Recognition," dalam *British Machine Vision Conference (BMVC)*, 2006.
- [72] B. B. M. B. B. H. Nicoletta Adamo Villan, "A natural interface for sign language mathematics," *ISVC'06 Proceedings of the Second international conference on Advances in Visual Computing*, vol. 1, pp. 70-79, 2006.
- [73] A. Riad dan S. ., A. Hamdy K.Elmonier, "Signs World; Deeping Into The Silence World and Hearing Its Signs (State of The Art)," *International Journal of Computer Science & Information Technology (IJCSIT)*, vol. 4, no. 1, February 2012.
- [74] G. Caridakis, O. Diamanti dan K. Karpouzis, "Automatic Sign Language Recognition: vision based feature extraction and probabilistic recognition scheme from multiple cues," *PETRA '08 Proceedings of the 1st international conference on PErvasive Technologies Related to Assistive Environments*, vol. 89, 2008.
- [75] C.-S. Chua, H. Ghuan dan Y.-K. Ho, "Model-based 3D hand posture estimation from a single 2D image," *Image and Visual Computing*, vol. 20, pp. 191-202, 2002.
- [76] G. Fang, W. Gao dan D. Zhao, "Large Vocabulary Sign Language Recognition Based on Fuzzy Decision Trees," *IEEE TRANSACTIONS ON SYSTEMS, MAN, AND CYBERNETICS—PART A: SYSTEMS AND HUMANS*, vol. 34, no. 3, pp. 305-314, May 2004.
- [77] H. Cooper, B. Holt dan R. Bowden, "Sign Language Recognition," *CVPR 2009*., pp. 2568-2574, 2009.
- [78] H. Brashear, "Improving the Efficacy of Automated Sign Language Practice Tools," *SIGACCESS NEWSLETTER*, pp. 11-17, 2007.
- [79] J. Naoum-Sawaya, M. Slim, S. Khawam dan M. A. Al-Alaoui, "Dynamic System Design for American Sign Language Recognition," *ISCCP*, 2006.



- [80] K. Grobel dan H. Hienz, "Video-Based Recognition of Fingerspelling in Real-Time," *Proceedings of the 13th International Conference on Pattern Recognition*, vol. 3, pp. 446-450, 25-29 Aug 1996.
- [81] M. Kato, "Articulated Hand Motion Tracking Using ICA-based Motion Analysis and Particle Filtering," *JOURNAL OF MULTIMEDIA*, vol. 1, no. 3, pp. 52-60, June 2006.
- [82] C. Neidle, S. Sclaroff dan V. Athitsos, "Sign Stream: A Tool for linguistic and computer vision research on visual-gestural language data," *Behavir Research Methods, Instruments, & Computers*, vol. 33, no. 3, pp. 311-320, 2001.
- [83] S. Nayak, S. Sarkar dan B. Loeding, "Distribution-based dimensionality reduction applied to articulated motion recognition," *IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE*, 2009.
- [84] O. Aran, I. Ari, A. Benoit, A. H. Carrillo dan F.-X. Fanard, "Sign Language Tutoring Tool," *eINTERFACE*, July 2006.
- [85] C. Lungociu, "Real Time Sign Language Recognition Using Artificial Neural Network," vol. 56, no. 4, pp. 75-84, 2011.
- [86] R. Yang dan S. Sarkar, "Coupled grouping and matching for sign and gesture recognition," *Computer Vision and Image Understanding*, 2009.
- [87] V. J. Arulkarthick, D. Sangeetha dan S. Umamaheswari, "Sign Language Recognition using K-Means Clustered Haar-Like Features and a Stochastic Context Free Grammar," *European Journal of Scientific Research*, vol. 78, no. 1, pp. 74-84, 2012.
- [88] T. Kadir, R. Bowden, E. J. Ong dan A. Zisserman, "Minimal Training, Large Lexicon, Unconstrained Sign Language Recognition," dalam *British Machine Vision Conference*, 2004.
- [89] Y. Beifang, J. Frederick C. Harris, L. Wang dan Y. Yan, "Real-Time Natural Hand Gestures," *IEEE Computing in science & Engineering*, pp. 20-25, 2005.
- [90] R. E. W. S. L. E. Rafael C Gonzalez, *Image Processing Using Matlab*, Prentice Hall, 2005.
- [91] R. Oji dan F. Tajeripour, "Full Object Boundary Detection By Applying Scale Invariant Features in a Region Merging Segmentation Algorithm," *International Journal of Artificial Intelligence & Applications (IJAIA)*, vol. 3, no. 5, September 2012.
- [92] J.-M. Morel dan G. Yu, "ASIFT: A New Framework for Fully Affine Invariant Image Comparison," *SIAM J. IMAGING SCIENCES*, vol. 2, no. 2, p. 438-469, 2009.
- [93] S. Lang, "Sign Language Recognition with Kinect," Freie Universität Berlin, Berlin, 2011.
- [94] P. Vinukonda, "A Study of The Scale-Invariant Feature Transform on a Parallel Pipelining," B.TECH., JNTU University, 2007.
- [95] Y. Meng dan B. Tiddeman, "Implementing the Scale Invariant Feature Transform (SIFT) Method," Department of Computer Science University of St. Andrews .
- [96] Y. Cui, N. Hasler, T. Thormählen dan H.-P. Seidel, "Scale Invariant Feature Transform with Irregular Orientation Histogram Binning," 2009.
- [97] S. Gupta, J. Ashraf dan L. Garg, "An Efficient Approach For Visual Simultaneous Localization And Mapping," vol. 1, no. 3, pp. 74-80, 2012.
- [98] M. d. S. Anjo, E. B. Pizzolato dan S. Feuerstack, "A Real-Time System to Recognize Static Gestures of Brazilian Sign Language (Libras) alphabet using Kinect," dalam *Proceedings of the 11th Brazilian Symposium on Human Factors in Computing Systems*, 2012.
- [99] A. Dhawan dan V. Honrao, "Implementation of Hand Detection based Techniques for Human Computer Interaction," dalam *International Journal of Computer Applications*, 2013.
- [100] A. S. Ghotkar dan G. K. Kharate, "Hand Segmentation Techniques to Hand Gesture Recognition for Natural Human Computer Interaction," dalam *International Journal of Human Computer Interaction (IJHCI)*, 2012.
- [101] A. S. Ghotkar dan D. G. K. Kharate, "Study of Vision Based Hand Gesture Recognition Using Indian Sign Language," *International Journal On Smart Sensing And Intelligent Systems*, Vol. %1 dari %2VOL. 7, NO. 1, 2014.



- [102] S. K. Kang, M. Y. Nam dan P. K. Rhee, "Color Based Hand and Finger Detection Technology for User Interaction," dalam *IEEE Explorrrer*, 2008.
- [103] D. Metaxas, B. Liu, F. Yang, P. Yang, N. Michael dan C. Neidle, "Recognition of Nonmanual Markers in American Sign Language (ASL) Using Non-Parametric Adaptive 2D-3D Face Tracking," dalam *Proceedings of the Eighth International Conference on Language Resources and Evaluation (LREC-2012)*, Istanbul, Turkey, 2012.
- [104] J. Liu, B. Liu, S. Zhang, F. Yang, P. Yang, D. N. Metaxas dan C. Neidle, "Non-manual grammatical marker recognition based on multi-scale, spatio-temporal analysis of head pose and facial expressions," *Image Vision Computing*, vol. 32, no. 10, pp. 671-681, 2014.