

Daftar Pustaka

- [1] Kementerian Koordinator Bidang Kesra. (2013, Oktober) Kementerian Koordinator Bidang Kesra. [Online]. <http://www.menkokesra.go.id/content/sugihartatmo-indonesia-negara-paling-rawan-bencana-di-dunia>
- [2] -. (2011, Agustus) BBC Indonesia. [Online]. http://www.bbc.co.uk/indonesia/berita_indonesia/2011/08/110810_indonesia_tsunami.shtml
- [3] BNPB, National Disaster Management Plan / 2010-2014, 2010.
- [4] (2009, Agustus) Kementrian Perencanaan Pembangunan Nasional/Badan Perencanaan Pembangunan Nasional. [Online]. http://www.bappenas.go.id/index.php/download_file/view/14057/3930/
- [5] Debbie Sutrisno and Nur Aini. (2017, November) BNPB: Bencana Banjir Terus Terjadi di Indonesia. [Online]. <http://nasional.republika.co.id/berita/nasional/umum/17/11/19/ozng90382-bnpb-bencana-banjir-terus-terjadi-di-indonesia>
- [6] Moore R.J., Cole S.J., Bell V.A., and Jones D.A, "Issues in Flood Forecasting: Ungauged Basins, Extreme Floods and Uncertainty," in *Frontiers in Flood Research, 8th Kovacs Colloquium*, Paris, 2006, pp. 103–122.
- [7] Gamini Jayasinghe, Farazy Fahmy, Nuwan Gajaweera, and Dileeka Dias, "A GSM Alarm Device for Disaster Early Warning," in *First International Conference on Industrial and Information Systems, ICIIS 2006*, Sri Lanka, 2006, pp. 383 - 387.
- [8] Naveed Ahmad et al., "Flood Prediction and Disaster Risk Analysis using GIS based Wireless Sensor Networks, A Review," *Journal of Basic and Applied Scientific Research*, vol. 3, no. 8, pp. 632-643, 2013.
- [9] Victor Seal et al., "A Simple Forecasting Scheme Using Wireless Sensor Networks," *International Journal of Ad hoc, Sensor & Ubiquitous Computing (IJASUC)*, vol. 3, no. 1, 2012.
- [10] Bill Schilit, Norman Adams, and Roy Want, "Context-Aware Computing Applications," in *Workshop on Mobile Computing Systems and Applications*, 1994, pp. 85-90.
- [11] Anind K. Dey, "Providing Architectural Support for Building Context-Aware Applications," Georgia Institute of Technology, Atlanta, Georgia, Thesis 2000.
- [12] Faisal Luqman and Martin Griss, "Overseer: A Mobile Context-Aware Collaboration and Task Management System for Disaster Response," in *Eighth International Conference on Creating, Connecting and Collaborating through Computing*, La Jolla, California, 2010, pp. 76-82.
- [13] Nan Jing, Yijun Li, and Zhao Wang, "A Context-aware Disaster Response System Using Mobile Software Technologies and Collaborative Filtering Approach," in *Proceedings of the 2014 IEEE 18th International Conference on Computer Supported Cooperative Work in Design*, Hsinchu, Taiwan, 2014, pp. 516-522.
- [14] Abdelkader Bouguessa and Boudjemaa Boudaa, "A Dynamic Adaptation for Context-Aware Service-Based Applications: Disaster management case study," in *1st International Conference on Information and Communication Technologies for*

- Disaster Management (ICT-DM)*, Algiers, Algeria, 2014, pp. 1-4.
- [15] Kamus Besar Bahasa Indonesia. [Online]. <http://kbbi.web.id/konteks>
- [16] Anind K. Dey and Gregory D. Abowd, "Towards a Better Understanding of Context and Context-Awareness," in *Proceedings of the Workshop on the What, Who, Where, When and How of Context-Awareness*, New York, 2000.
- [17] G. D. Abowd, "Software Engineering Issues for Ubiquitous Computing," in *International Conference on Software Engineering*, Los Angeles, 1999.
- [18] G. D. Abowd and E. D. Mynatt, "Charting Past, Present, and Future Research in Ubiquitous Computing," *ACM Trans. Comput.-Hum. Interact.*, vol. 7, no. 1, pp. 29-58, Maret 2000.
- [19] M. Weiser, "The Computer for the 21st Century," *Scientific American*, vol. 265, no. 3, September 1991.
- [20] L. Sokol and R. Ames, *Analytics in a Big Data Environment*.: IMB, 2013.
- [21] Nidia G. S. Campos et al., "Autonomic Context-Aware Wireless Sensor Networks," *Journal of Sensors*, vol. 2015, 2015.
- [22] Waltenegus Dargie and Christian Poellabauer., *Fundamentals of Wireless Sensor Networks: theory and practice*.: John Wiley and Sons, 2010.
- [23] D.F. Lekkas, C. Onof, M. J. Lee, and E.A. Baltas, "Application of Artificial Neural Networks for Flood Forecasting," *Global Nest*, vol. 6, no. 3, pp. 205-211, 2004.
- [24] Swarup Mandal, Debashis Saha, and Torsha Banerjee, "A Neural Network Based Prediction Model for Flood in a Disaster Management System with Sensor Networks," in *International Conference on Intelligent Systems and Image Processing (ICISIP) 2005*, 2005, pp. 78-82.
- [25] Elizabeth Basha and Daniela Rus, "Design of Early Warning Flood Detection Systems for Developing Countries," in *International Conference on Information and Communication Technologies and Development*, 2007, pp. 1-10.
- [26] E. A. Basha, S. Ravela, and D. Rus, "Model-Based Monitoring for Early Warning Flood Detection," , 2008.
- [27] A. D'Addabbo et al., "A Bayesian Network for Flood Detection," in *IEEE Geoscience and Remote Sensing Symposium*, Quebec City, QC, Canada, 2014, pp. 3594 - 3597.
- [28] Yanwei Wu and Yun Wang, "A Portable Flood Detection System Using Heterogeneous Sensor Network," in *IEEE 33rd International Performance Computing and Communications Conference (IPCCC)*, Austin, Texas, USA, 2014, pp. 1-2.
- [29] Mohammed Khalaf, Abir Jaafar Hussain, Dhiya Al-Jumeily, Paul Fergus, and Ibrahim Olatunji Idowu, "Advance flood detection and notification system based on sensor technology and machine learning algorithm," in *International Conference on Systems, Signals and Image Processing (IWSSIP)*, London, 2015, pp. 105 - 108.
- [30] Siti Nor Khuzaimah Binti Amit, Soma Shiraishi, Tetsuo Inoshita, and Yoshimitsu Aoki, "Analysis of Satellite Images for Disaster Detection," in *IEEE International Geoscience and Remote Sensing Symposium (IGARSS)*, Beijing, China, 2016, pp. 5189 - 5192.
- [31] Sofyan Ritung, Wahyunto, Fahmuddin Agus, and Hapid Hidayat, *Panduan Evaluasi Kesesuaian Lahan*. Bogor, Indonesia: Balai Penelitian Tanah dan World Agroforestry Centre (ICRAF), 2007.



- [32] T. Tingsanchali, "Urban Flood Disaster Management," *Procedia Engineering*, vol. 32, pp. 25-37, 2012.
- [33] Hung Ngoc Do, Minh-Thanh Vo, Van-Su Tran, Phuoc Vo Tan, and Cuong Viet Trinh, "An Early Flood Detection System Using Mobile Networks," in *International Conference on Advanced Technologies for Communications (ATC)*, Ho Chi Minh City, Vietnam, 2015, pp. 599-603.
- [34] Victor Seal, "A Simple Flood Forecasting Scheme Using Wireless Sensor Networks," *International Journal of Ad hoc, Sensor & Ubiquitous Computing (IJASUC)*, vol. 3, no. 1, February 2012.
- [35] Balai Besar Wilayah Sungai Pemali Juana. [Online]. www.bbwspejalijuana.com
- [36] Castillo-Effer M., Quintela D.H., Moreno W., Jordan R., and Westhoff W., "Wireless Sensor Networks for Flash-Flood," in *Proceedings of the 5th IEEE International Caracas Conference on Devices, Circuits and Systems*, Caracas, Venezuela, 2004, pp. 142-146.
- [37] Jason Pascoe, "Adding Generic Contextual Capabilities to Wearable Computers," in *Proceedings of the 2nd IEEE International Symposium on Wearable Computers*, Pittsburgh, 1998, pp. 92-99.
- [38] Martin G. Brown, "Supporting User Mobility," in *IFIP Conference on Mobile*, Canberra, Australia, 1996.
- [39] Jeremy R. Cooperstock, Koichiro Tanikoshi, Garry Beirne, Tracy Narine, and William Buxton, "Evolution of a Reactive Environment," in *ACM Conference on Human Factors*, Denver, 1995, pp. 170-177.
- [40] Scott Elrod, Gene Hall, Rick Costanza, Michael Dixon, and Jim des Rivieres, "Responsive Office Environments," *Communications of the ACM*, vol. 36, no. 7, pp. 84-85, July 1993.
- [41] Richard Hull, Philip Neaves, and James Bedford-Roberts, "Towards Situated Computing," in *Proceedings of the 1st International Symposium on Wearable Computers*, Cambridge, 1997, pp. 146-153.
- [42] Jun Rekimoto, Yuji Ayatsuka, and Kazuteru Hayashi, "Augment-able Reality: Situated Communication through Physical and Digital Spaces," in *Proceedings of the 2nd IEEE International*, Pittsburgh, 1998, pp. 68-75.
- [43] Stephen Fickas, Gerd Kortuem, and Zary Segall, "Software Organization for Dynamic and Adaptable Wearable Systems," in *Proceedings of the 1st International Symposium on Wearable Computers*, Cambridge, 1997, pp. 56-63.
- [44] Jason Pascoe, Nick S. Ryan, and David R. Morse, Human-Computer-Giraffe Interaction – HCI in the Field, 1998, In the Workshop on Human Computer Interaction with Mobile Devices, Glasgow, Scotland.
- [45] Anind K. Dey, "Context-Aware Computing: The CyberDesk Project," in *Proceedings of the AAAI 1998 Spring Symposium on Intelligent Environments (AAAI Technical Report SS-98-02)*, Palo Alto, 1998, pp. 51-54.
- [46] Daniel Salber, Anind K. Dey, Robert J. Orr, and Gregory D. Abowd, "Designing for Ubiquitous Computing: A case Study in Context Sensing," Georgia Institute of Technology, GVU Center, Atlanta, Technical Report GIT-GVU-99-29, 1999.



- [47] Bill N. Schilit, Norman I. Adams, and Roy Want, "Context-Aware Computing Applications," in *Proceedings of the 1st International Workshop on Mobile Computing Systems and Applications*, Santa Cruz, 1994, pp. 85-90.
- [48] Peter J. Brown, John D. Bovey, and Xian Chen, "Context-Aware Applications: From the Laboratory to the Marketplace," *IEEE Personal Communications*, vol. 4, no. 5, pp. 58-64, October 1997.
- [49] Anind K. Dey and Gregory D. Abowd, "The Use of Perception in Context-Aware Computing," in *Proceedings of the 1997 Workshop on Perceptual User Interfaces (PUI '97)*, Banff, Alberta, October 1997, pp. 26-27.
- [50] Andy Ward, Alan Jones, and Andy Hopper, "A New Location Technique for the Active Office," *IEEE Personal Communications*, vol. 4, no. 5, pp. 42-47, October 1997.
- [51] Gregory D. Abowd, Anind K. Dey, Robert J. Orr, and Jason Brotherton, "Context-Awareness in Wearable and Ubiquitous Computing," *Virtual Reality*, vol. 3, pp. 200-211, 1998.
- [52] Nigel Davies, Keith Mitchell, Keith Cheverst, and Gordon Blair, "Developing a Context-Sensitive Tour Guide," in *1st Workshop on Human Computer Interaction for Mobile Devices*, Glasgow, Scotland, 1998.
- [53] Gerd Kortuem, Zary Segall, and Martin Bauer, "Context-Aware, Adaptive Wearable Computers as Remote Interfaces to 'Intelligent' Environments," in *Proceedings of the 2nd International Symposium on Wearable Computers*, Pittsburgh, 1998, pp. 58-65.
- [54] Nick Ryan. (1997, October) Mobile Computing in a Fieldwork Environment (MCFE) metadata elements, version 0.2.
<http://www.cs.kent.ac.uk/projects/mobicomp/Fieldwork/Notes/mcfemeta.html>.
- [55] Peter J. Brown, "Triggering Information by Context," *Personal Technologies*, vol. 2, no. 1, pp. 1-9, Maret 1998.
- [56] Yasin Yusuf, *Anatomi banjir kota pantai : perspektif geografi*, Kundharu Saddhono, Ed. Surakarta: Pustaka Cakra Surakarta, 2005.
- [57] Tjasyono, *Meteorologi Indonesia: Awan dan Hujan Monsun*. Jakarta: BMG, 2007.
- [58] Aldrian E., Budiman, and Mimin Karmini, "Adaptasi dan Mitigasi Perubahan Iklim di Indonesia," Pusat Perubahan Iklim dan Kualitas Udara Kedeputan Bidang Klimatologi, Badan Meteorologi, Klimatologi dan Geofisika, Jakarta, 2011.
- [59] Chay Asdak, *Hidrologi dan Pengelolaan Daerah Aliran Sungai*. Yogyakarta: Gajah Mada University Press, 2002.
- [60] Deddy Mulyana, *Ilmu Komunikasi: Suatu Pengantar*. Bandung: Remaja Rosdakarya, 2007.
- [61] Dumiary, *Ekonomika Sumber Daya Air*. Yogyakarta: BPFE, 1992.
- [62] Arsyad S., *Konservasi Tanah dan Air*. Bogor: IPB Press, 2006.
- [63] Chai Asdak, *Hidrologi Dan Pengelolaan Daerah Aliran Sungai*. Yogyakarta: Gajah Mada University Press, 1995.
- [64] Sri Harto Br., *Analisis Hidrologi*. Jakarta: PT. Gramedia Pustaka Utama, 1993.
- [65] Li Deng and Dong Yu, "Deep Learning Method and Application," *Signal Processing*, vol. 7, no. 3-4, 2013.



- [66] Y. Bengio, A. Courville, and P. Vincent, "Representation Learning: A Review and New Perspectives," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 35, no. 8, pp. 1798–1828, 2013.
- [67] Sudjana, *Metode Statistika*. Bandung, 2005.
- [68] Nic Schraudolph and Fred Cummins. (2006) Introduction to Neural Network. [Online]. <https://www.schraudolph.org/teach/NNcourse/lstm.html#refs>
- [69] Tim Dettmers. (2016, March) Deep Learning in a Nutshell: Sequence Learning. [Online]. <https://devblogs.nvidia.com/parallelforall/deep-learning-nutshell-sequence-learning/>
- [70] Klaus Greff, Rupesh K. Srivastava, Jan Koutník, Bas R. Steunebrink, and Jürgen Schmidhuber, "LSTM: A Search Space Odyssey," *IEEE Transactions on Neural Networks and Learning Systems*, vol. PP, no. 99, pp. 1-11, 2017.
- [71] N. Harun, S. S. Dlay, and W. L. Woo, "Performance of Keystroke Biometrics Authentication System Using Multilayer Perceptron Neural Network (MLP NN)," in *7th International Symposium on Communication Systems, Networks & Digital Signal Processing (CSNDSP 2010)*, 2010, pp. 711-714.
- [72] Makridakis, *Metode dan aplikasi peramalan*, 2nd ed. Jakarta: Binarupa Aksara, 1999.
- [73] S. Singh, *Advanced Sampling theory with applications: How Michael Selected Amy*. Netherlands: Kluwer Academic Publishers, The Netherlands, 2003.
- [74] Sri Kusumadewi and H. Purnomo, *Aplikasi Logika Fuzzy untuk Pendukung Keputusan*. Yogyakarta: Graha Ilmu, 2007.
- [75] Thomas L. Saaty, "Multicriteria Decision Making-The Analytical Hierarchy Process," Pittsburgh, RWS Publications 1990.
- [76] Wolfgang Janco, *Multi-Criteria Decision Making: An Application Study of ELECTRE&TOPSIS.*, 2005.
- [77] Sri Kusumadewi, *Artificial Intelligence: Teknik dan Aplikasinya*. Yogyakarta, Indonesia: Graha Ilmu, 2003.
- [78] Muhammad Syukron. (2015, Oktober) Suara Merdeka.com. [Online]. <http://berita.suamerdeka.com/smcetak/dibagi-tiga-selamatkan-wilayah-kota-dari-banjir/>
- [79] (2018) mapcoordinates.net. [Online]. <http://www.mapcoordinates.net/en>
- [80] Miguel Costa Junior, Pedro Cheong, Kam-Weng Tam Wen-Yao Zhuang, "Flood Monitoring of Distribution Substation in Low-Lying Areas Using Wireless Sensor Network," in *International Conference on System Science and Engineering*, Macau, China, 2011.
- [81] Suman Saha and Mitsuji Matsumoto, "A Framework for Disaster Management System and WSN Protocol for Rescue Operation," in *TENCON 2007 - 2007 IEEE Region 10 Conference*, Taipei, Taiwan, 2007, pp. 1-4.
- [82] Kamarulzaman Ab. Aziz Nor Azlina Ab. Aziz, "Managing Disaster with Wireless Sensor Networks," in *ICACT 2011 : 13th International Conference on Advanced Communication Technology*, 2011, pp. 202-207.
- [83] Kazem Sohraby, Daniel Minoli, and Taieb Znati, *Wireless Sensor Networks: technology, protocols, and applications.*: John Wiley and Sons, 2007.



- [84] Sunkpho J. and Ootamakorn C., "Real-time Flood Monitoring and Warning System," *Songklanakarin Journal of Science and Technology*, vol. 33, no. 2, pp. 227-235, 2011.
- [85] Erdal Cayirci and Tolga Coplu, "SENDROM: Sensor Networks for Disaster Relief Operations Management," *Wireless Networks*, vol. 13, no. 3, pp. 409-423, June 2007.
- [86] Nor Azlina Ab. Aziz and Kamarulzaman Ab. Aziz, "Managing Disaster with Wireless Sensor Networks," in *ICACT*, 2011, pp. 202-207.
- [87] Yang Peng, Richard Lahusen, Behrooz Shirazi, and WenZhan Song, "Design of Smart Sensing Component for Volcano Monitoring," in *IET 4th International Conference on Intelligent Environments*, Seattle, Washington, 2008, pp. 9-15.
- [88] I. Nourbakhsh et al., "Mapping Disaster Zones," *Nature*, vol. 439, pp. 787-788, February 2006.
- [89] D. Hughes et al., "An Intelligent Grid-Based Flood Monitoring and Warning System," in *5th UK eScience All Hands Meeting*, 2006.
- [90] Jun Hu, Sibrecht Bouwstra, Sidarto Bambang Oetomo, Loe Feijs Wei Chen, "Sensor Integration for Perinatology Research," *International Journal of Sensor Networks*, vol. 9, no. 1, pp. 38-49, 2011.
- [91] Humberto Cervantes De Ávil, Juan Iván Nieto Hipólito and José Rosario Gallardo López Miguel Enrique Martínez-Rosas, "Wireless Sensor Networks (WSN) Applied in Agriculture," in *Emerging Technologies in Wireless Ad-hoc Networks: Applications and Future Development.*: IGI Global, 2011, ch. 6, pp. 115-135.
- [92] Informasi dan Humas BNPB Pusat Data. (2012, Oktober) Badan Nasional Penanggulangan Bencana (BNPB). [Online].
<http://www.bnpb.go.id/page/read/6/potensi-ancaman-bencana>
- [93] Tim Penyusun BNPB, "Dokumentasi Kegiatan Tahun 2012," Badan Nasional Penanggulangan Bencana (BNPB), ISBN: 978-602-7700-07-9, 2012.
- [94] Hermawan A., *Jaringan Syaraf Tiruan Teori dan Aplikasi*. Yogyakarta: Andi Offset, 2006.
- [95] D. Puspaningrum, *Pengantar Jaringan Syaraf Tiruan*. Yogyakarta: Andi Offset, 2006.
- [96] Sri Kusumadewi, S. Hartati, A. Harjoko, and R Wardoyo, *Fuzzy Multi-Attribute Decision*. Yogyakarta: Graha Ilmu, 2006.
- [97] S.R. Singh, "A Simple Time Variant Method for Fuzzy Time Series Forecasting," *Cybernetics and System: An Int. Journal*, vol. 38, pp. 305-321, 2007.
- [98] Chiara Buratti, Andrea Conti, Davide Dardari, and Roberto Verdone, "An Overview on Wireless Sensor Networks Technology and Evolution," *Sensors*, vol. 9, no. 9, pp. 6869–6896, August 2009.