

- Adam, A.H.M., Elhag, A.M.H and Abdelrahim, S. 2013. Accuracy Assessment of Land Use & Land Cover Classification (LU/LC) “Case Study of Shomadi area-Renk County-Upper Nile State, South Sudan”. *Interational Journal of Scientific and Research Publications* 3(5) 1-6.
- APFM. 2007. The Role of Land-Use Planning in Flood Management. WMO.
- Arcement, G.J.J., Schneider, V.R., and USGS. 1984. *Guide for Selecting Manning’s Roughness Coefficient for Natural Channels and Flood Plains*. (WSP2339). USA: United States Geological Survey.
- Atviana, F. 2014. *Evaluation of Retention Basin Establishment to Reduce Flood Risk on Crops by Using Flood Modeling in Logung Sub-Catchment , Juwana Catchment, Central Java, Indonesia*. Thesis. Faculty of Geo-Information and Earth Observation, Gadjah Mada University.
- Bappenas. 2012. *Analisa Perubahan Penggunaan Lahan di Ekosistem DAS dalam Menunang Ketahanan Air dan Ketahanan Pangan; studi kasus DAS Brantas*. Jakarta: Dit. Kehutanan dan Konservasi SDA Bappenas.
- Barthés, B. and Roose, E. 2002. Aggregate stability as an indicator of soil susceptibility to runoff and erosion; validation at several levels. *Catena* 47 (2002) 133-149.
- Baumann, J., Morales, J.A.R., Monterrosas, J.L.A. 2008 The effect of rainfall, slope gradient and soil texture on hydrological processes in a tropical watershed. 15th International Congress of ISCO. International Soil Conservation Organization, Budapest, Hungary.
- Benz, U.C., Hofmann, P., Willhauck, G., Lingenfelder, I. and Heynen, M. 2003. Multi-resolution, object-oriented fuzzy analysis of remote sensing data for GIS-ready information. *ISPRS Journal of Photogrammetry and Remote Sensing* 58(2004) 239-258.
- Borga, M., Stoffel, M., Marchi, L., Marra, F and Jakob, M. 2014. Hydrogeomorphic response to extreme rainfall in headwater systems: Flash flood and debris flows. <http://dx.doi.org/10.1016/j.jhydrol.2014.05.022>.
- Chen, J.M., Rich, P.M., Gower, S.T., Norman, J.M. and Plummer, S. 1997. Leaf area index of boreal forests: Theory, techniques, and measurements. *Journal of Geophysical Research*, Vol. 102 No. D24, Pages 29,429-29,443.
- City of Indianapolis. 2011. City of Indianapolis: Stormwater Design and Specifiacion Manual.
- Colombo, A.G., Hevas, J., Arllam, A.L.V. 2002. Guidelines on flash floods prevention and mitigation. Ipsra (Italy): NEIDES.
- Cruz, R. V. O. 1999. Integrated Land Use Planning and Sustainable Watershed Management. *Journal of Phiilipine Development*. Number 47, Volume XXVI, No. 1.
- Davidson, J. And Da Silva, S. 2000. Composite volcanoes. In: Sigurdsson, H. (ed) Encyclopedia of Volcanoes. Academic Press.
- De Roo, A.P.J. and Jetten, V.G. 1999. Calibrating and validating the LISEM model for two data sets from the Netherlands and South Africa. *CATENA*, 37(304): 477-493.
- De Roo, A.P.J., Wesseling, C.G. and Van Deursen, W.P.A. 2000. Physically based river basin modelling within a GIS: The LISFLOOD model. *Hydrological Processes*. Vol. 14(11-12), 1981-1992 online ISSN 1099-1085.
- EPA. 2006. National Pollutant Discharge Elimination System (NPDES). *Dry Detention Ponds*. Retrieved 16/06/2013, from http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=67

- Gomez, J.A. and Nearing, M.A. 2005. Runoff and sediment losses from rough and smooth soil surfaces in a laboratory experiment. *Catena* 59(2005) 253-266.
- Hernandez, M., Miller, S.N., Goodrich, D.C., Goff, B.F., Kepner, W.G., Edmonds, C.M. and Jones, K.B. 2000. Modeling runoff response to land cover and rainfall spatial variability in semi-arid watersheds. *Environmetal Monitoring and Assessment* 64: 285-298, 2000.
- Hessel, R. 2002. Modeling soil erosion in small catchment on the Chinese Loess Plateau; Applying LISEM to extreme conditions, Utrecht University, Utrecht, 318 pp.
- Humaida, H. 2013. Kajian Geokimia Erupsi Gunung Merapi dan Gunung Kelud. *Dissertation*. Faculty of Mathematics and Natural Science. Universitas Gadjah Mada. Yogyakarta.
- Humaida, H., Brotopuspito, K. S., Pranowo, H. D., and Nasrito. 2011. *Pemodelan Perubahan Densitas dan Viskositas Magma serta Pengaruhnya terhadap Sifat Erupsi Gunung Kelud*, Vol. 6 No. 4 Desember 2011: 227-239.
- IWPDC. 2013. A guiding hand for flood retarding basins. Retrieved 29 December 2014, from http://www.ancold.org.au/wp-content/uploads/2013/09/040_042wp0813Flood-retarding.pdf
- Jarocinska, A. and Zagajewski, B. 2006. Remote sensing tools for analysis of vegetation condition in extensively sed agricultural areas. University of Warsaw, K Krakowskie Przedmiescie 30, 00-927 Warszawa, Poland.
- Jetten, V.G. 2002. *LISEM: Limburg Soil Erosion Model User Manual Windows version 2.x*. The Netherlands: Utrecht Center for Environment and Landscape Dynamics, Utrecht University.
- Kinsey-Henderson, A. E., Post, D. A., Bartley, R. and Hawdon, A. H. 2005. Modelling spatial patterns of runoff on a hillslope: implications for fine sediment delivery. In Zerger, A. And Argent, R. *MODSIM 2005 International Congress on Modelling and Simulation*. Modelling and Simulation Society of Australia and New Zealand, December 2005, 2728-2734
- Korhonen, L., Korhonen, K.T., Routiainen, M. and Stenberg, P. 2006. Estimation of forest canopy cover: a comparison of field measurement techniques. *Silva Fennica* 40(4): 577-588.
- Koshak, N. and Dawod, G. 2011. A GIS morphometric analsis of hydrological catchments within Makkah Metropolitan area, Saudi Arabia. *International Journal of Geomatics and Geosciences*, Vol. 2, No. 2, 2011.
- Kreibich, H., Piroth, K., Seifert, I., Maiwald, ., Kunert, U., Schwarz, J., Merz, B., and Thieken, A. H. 2009. Is flow velocity a significant parameter in flood damage modelling?. *Nat. Hazard Earth Syst. Sci.*, 9, 1679-1692, 2009.
- Lavigne, F., Thouret, J.C., Hadmoko, D.S., Sukatja, C.B. 2007. Lahars in Java: Initiations, Dynamics, Hazard Assessment and Deposition Processes. *Forum Geografi*, Vol. 21, No. 1, Juli 2007: 17-32
- Lavigne, F. and Thouret, J.C. 2002. Sediment transportation and deposition by rain-triggered lahars at Merapi Volcano, Central Java, Indonesia. *Gromorphology* 49: 45-69.
- Lóczy, D., Czigány, Sz. & Pirkhoffer, E. (2012), Flash flood hazards. In: Muthukrishnavellaisamy, K. (ed.), *Studies in Water Management*. InTech, Rijeka. 27-52.
- Mašková, Z., Zemek, F. And Květ, J. 2008. Normalized difference vegetation index (NDVI) in the management of mountain meadows. *Boreal Environmet Research* 13: 417-432.
- Mhonda, A. 2013. Evaluating Flash Flood Risk Reduction Strategies in Built-up Environment in Kampala. Netherland: University of Twente.
- Pechlivaidis. 2011. Catchment Scale Hydrological Modeling: A Review of Model Types, Calibration Approaches and Uncertainty Analysis Methods in the Context of Recent Development in Technology ad Applications. *Global NEST Journal*. Vol 13(3), 193-214.
- Pierson, T.C., Wood, N.J. and Driedger, C.L. 2014. Reducing risk from lahar hazards: concepts, case studies, and roles for scientist. *Journal of Applied Volcanology* 2014, 3:16.

- Prachansri, S. 2007. Analysis of Soil and Land cover parameters for Flood hazard assessment; A Case Study of the Nam Chun Watershed, Phetchabun, Thailand. International Institute for Geo-information Science and Earth Observation, Gadjah Mada University, Yogyakarta, Indonesia.
- Pratomo, I. 2006. Klasifikasi gunung api aktif Indonesia, studi kasus dari beberapa letusan gunung api dalam sejarah. *Jurnal Geologi Indonesia*, Vol. 1 No. 4 Desember 2006: 209-227.
- Rahadiansyah, S. 2014. Basin Modeling in Boyong-Code River Using openLISEM and PCRaster. The Graduate School of Gadjah Mada University, Yogyakarta, Indonesia.
- Ramirez, J. A. 2000. Prediction and Modeling of Flood Hydrology and Hydraulics. Chapter 11 of *Inland Flood Hazards: Human, Riparian and Aquatic Communities* Eds. Ellen Wohl; Cambridge University Press.
- Rawls, W.J., Asce, M., Brakensiek, D.L. and Miller, N. 1983. Green-Ampt Infiltration Parameters from Soils Data. *J. Hydraul. Eng.*, 109(1), 62-70.
- Sartohadi, J. Jamulya and Dewi, N.I.S. 2012. *Pengantar Geografi Tanah*. Pustaka Pelajar: Yogyakarta.
- Sartohadi, J. and Pratiwi, E.S. 2014. *Pengelolaan Bencana Kegunungapian Kelud pada Periode Krisis Erupsi 2014*. Universitas Gadjah Mada: Yogyakarta.
- Setiawan, A. 2009. Study of Land Use Change Effect on the Runoff Using LISEM (Limburg Soil Erosion Model) Rainfall-Runoff Model A Case Study: Kreo Sub Catchment, Central Java Province, Indonesia. The Graduate School of Gadjah Mada University, Yogyakarta, Indonesia.
- Shresta, A.B. 2008. *Resource Manual on Flash Flood Risk Management; Module 1: Community-based Management*. Kathmandu: International Centre for Integrated Mountain Development (ICIMOD).
- Simon, R.D. 2008. Combined Hydrological and Hydrodynamic Modeling for Flood Hazard Assessment; A Case Study of Upper Kaluganga Catchment, Ratnapura, Sri Lanka., International Institute for Geo-Information Science and Earth Observation Enschede, Netherlands, 88 p.
- Soedarsono D., Takeda K. 1983. *Hidrologi Untuk Pengairan*. Jakarta: PT. Pradnya Paramitra.
- Sumarno. 2006. Periodisasi Musim Tanam Padi sebagai Landasan Manajemen Produksi Beras Nasional. Pusat Penelitian dan Pengembangan Tanaman Pangan.
- Suparman, Soetopo, T., Wirjotijoso, S., Suprawoto, D. and Pradono, H. 2008. SABO Untuk Penanggulangan Bencana Akibat Aliran Sedimen. Yayasan Air Adhi Eka and JICA, Jakarta.
- Swank, W.T. 1968. The Influence of Rainfall Interception on Streamflow. Clemson University Water Resources Research Institute, Clemson, South Carolina, US.
- Syarifudin, Y. 2012. Aplikasi Penginderaan Jauh dan Sistem Informasi Geografis untuk Evaluasi Rencana Tata Ruang Wilayah berdasarkan Kesesuaian Lahan (Kasus Pemanfaatan Ruang Permukiman Kabupaten Purworejo). *Thesis*. Faculty of Geography. Universitas Gadjah Mada. Yogyakarta.
- Thouret, J.C., Abdurachman, K.E., Bourdier, J.L. and Bronto, S. 1998. Origin, characteristics and behaviour of lahars following the 1990 eruption of Kelud volcano, eastern Java (Indonesia). *Bull Volcanol* (1998) 59: 460-480.
- Twigg, J. 2004. *Disaster Risk Reduction Mitigation and preparedness in development and emergency programmer*.
- Vallance, J.W. 2000. Lahars. In: Sigurdsson, H. et al., eds., 2000: *Encyclopedia of volcanoes*. San Diego: Academic Press, p. 601-616.



UNIVERSITAS
GADJAH MADA

RETARDING BASIN MODELING FOR LAHAR HAZARD MANAGEMENT (Case Study in Bladak Catchment, East Java)

ALZAENA ULYA RUSDIMI, Prof. Dr.rer.nat. Junun Sartohadi, M.Sc.

Universitas Gadjah Mada, 2015 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Wani, S. P. and Sidhu, G. S. 2009. Land Use Planning in Integrated Watershed Development Program for Improving Livelihoods. In: Soil Science in Meeting the Challenges to Food Security and Environmental Quality, December 22-25, IARI Campus, New Delhi.
- Widyaputra, P. K. 2014. Multi-scale Analyses of Flash Flood Susceptibility Assessment by Using Geomorphological Approach and Hydrological Model in uwana Ctchment, Central Java Province. *Thesis*. Faculty of Geo-Information and Earth Observation. Universitas Gadjah Mada. Yogyakarta.
- Wiguna, P.P.K. 2012. Penaksiran Risiko Bahaya Banhir Lahar di Daerah Aliran Sungai (DAS) Gendol dan DAS Opak, Yogyakarta. *Thesis*. Yogyakarta: Faculty of Geography, Universitas Gadjah Mada.
- Wirosoedarmo, R., Sutanhaji., A. T., Kurniati, E., and Wijayanti, R. 2011. Evaluasi Kesesuaian Lahan untuk Tanaman Jagung Menggunakan Metode Analisis Spasial. *Agritech, Vol. 31, No. 1, February 2011*.
- Zaenudin, A. 2008. Kubah Lava Sebagai Salah Satu Ciri Hasil Letusan Gunung Kelud. *Buletin Vulkanologi dan Bencana Geologi, Volume 3 Nomor 2, Agustus 2008: 18-29*.
- Zaenudin, A. 2009. Prakiraan Bahaya Erupsi Gunung Kelud. *Buletin Vulkanologi dan Bencana Geologi, Volume 4 Nomor 2, Agustus 2009: 1 – 17*.