

## CURRICULUM VITAE

Taku Nishimura, Professor, PhD. (Agriculture) Born 1963

Organization: Laboratory of Soil Physics and Soil Hydrology  
Department of Biological and Environmental Engineering  
Graduate School of Agricultural and Life Sciences, The University of Tokyo  
Tel. 03-5841-5350, Fax. 03-5841-8171  
takun@soil.en.a.u-tokyo.ac.jp

### Education:

1983-1987 Undergraduate, Faculty of Agriculture, The University of Tokyo.  
1987-1989 Department of Agricultural Engineering, Graduate School of Agricultural Science,  
The University of Tokyo,  
1989-1991 PhD candidate at Graduate School of Agricultural Science, The University of Tokyo.

### Research and professional experience:

1991.4-1991.7: Fellowships of the Japan Society for the Promotion of Science for Japanese Junior Scientists.  
1991.8-1997.8: Assistant at Laboratory of Soil Physics and Soil Hydrology, Department of Agricultural Engineering, The University of Tokyo  
(1996.5- 1997.4: Visiting Research Scholar in USDA-ARS National Soil Erosion Research Laboratory and Department of Agronomy, Purdue University. West Lafayette, IN USA)  
1997.9-1999.3: Assistant Professor of Lab. of Land Use, Department of Eco-region science, School of Agriculture, Tokyo University of Agriculture and Technology  
1999.4-2006.7: Associate professor of Department of International Environmental and Agricultural Sciences, Tokyo University of Agriculture and Technology (Soil Physics, Soil & Environmental Conservation and Remediation)  
2006.8 - 2013.3: Associate Professor at Lab. of Soil Physics and Soil Hydrology, Department of Biological and Environmental Engineering, The University of Tokyo.  
2013.4 till present: Professor at Lab. of Soil Physics and Soil Hydrology, Department of Biological and Environmental Engineering, The University of Tokyo.

### Membership of Academic Society

The Japanese Society of Irrigation, Drainage and Reclamation Engineering.(JSIDRE)  
Japan Society of Soil Physics  
Japan Society of Hydrology and Water Resources  
Soil Science Society of America  
Japan Geotechnical Society  
Japanese Society of Soil Science and Plant Nutrition  
The Japanese Association for Arid Land Studies (fellow for 2008-2009)  
Japan Geophysical Union

2009-2011 Editor of Journal of Soil Physics, Japan

2011.10- 2015.9 Editor of Soil Science and Plant Nutrition (Taylor and Francis)

2016.6-2018.5 Editor in Chief, Irrigation, Drainage and Rural Engineering Journal (Japanese)

2016.6-2018.5 Board member of Japan, Society of Irrigation, Drainage and Rural Engineering

### Publications in English

1. Properties of surface crusts of an Andisol and their effects on soil-hydrological processes Taku Nishimura, Masashi Nakano, Tsuyoshi Miyazaki CATENA SUPPLEMENTS 24 pp.17-28(1993)
2. Changes in soil physical properties due to surface crust formation under simulated rainfall.

- Nishimura, T., M. Nakano, T. Miyazaki In International Association of Hydrological Science Publication 212 (Exchange Processes at the Land Surface for a Range of Space and Time Scales, ed. H.J.Bolle, R.A.Feddes, and J.D.Kalma), pp.253-257, (1993)
3. Effects of initial water content on formation and properties of a surface crust of the Maaji soil, Nishimura, T., M. Nakano, and T. Miyazaki, in Sealing, crusting and hardsetting soils: Productivity and conservation. Ed. H.B.So, G.D.Smith, S.R.Raine, B.M.Schafer and R.J.Loch, Australian Society of Soil Science Inc.. pp.151-156 (1995)
  4. Changes in infiltration and ion exchange subsequent to gypsum application to a Japanese acid soil, Nishimura, T. Trans. Jpn. Soc. of Irrig. Drain. and Reclamation Engg., 184, pp.167-173 (1996)
  5. Effects of clod size, raindrop size and initial moisture conditions on surface sealing of a Japanese acid soil, Trans. Jpn. Soc. of Irrig. Drain. and Reclamation Engg. 199pp. 17-22 (1999)
  6. Effects of gypsum application on dispersion of an acid Kunigami mahji soil, Taku Nishimura, M.Nakano, T. Miyazaki: J. of the Jpn. Soc. of Soil Physics, 81 pp.15-21 (1999)
  7. Critical coagulation concentration and permeability of the Fukaya clayey soils, T. Nishimura, K. Nakano, M. Kato, and T. Miyazaki, Clay Science for Engineering ed. K.Adachi & M.Fukue pp.291-295, Balkema Publ. (2001)
  8. Measurement of near saturated hydraulic conductivity in situ, T. Nishimura, U. Irshad, M. Kato, and M. Inoue, Proceedings 2nd Asian Conference on Unsaturated soils pp.375-378 (2003 )
  9. Estimation of Dry Bulk Density of Soil Using Amplitude Domain Reflectometry Probe, Krissandi WIJAYA, Taku NISHIMURA, and Makoto KATO, J. of the Jpn. Soc. of Soil Physics, 95, pp.63-73 (2003)
  10. Field Estimation of Soil Dry Bulk Density Using Amplitude Domain Reflectometry Data, Krissandi WIJAYA, Taku NISHIMURA, Makoto KATO and Masanobu NAKAGAWA, J. of the Jpn. Soc. of Soil Physics, 97 pp.3-12 (2004)
  11. Change in share characteristics of Loess soil by applying Irrigation, Ueno, M., T. Nishimura, and M. Kato, J. of Arid Land Studies, 14S, 215-218 (2004)
  12. The effect of Entrapped Air on the Quasi-Saturated Soil Hydraulic Conductivity and Comparison to the Unsaturated Hydraulic Conductivity. Sakaguchi, A. T. Nishimura, and M. Kato, Vadose Zone J. 4, 139-144 (2004)
  13. Effect of gypsum and polyacrylamide application on erodibility of an acid Kunigami mahji soil, Nishimura, T. KATO, M., YAMAMOTO, and S. Suzuki, Soil Sci. and Plant Nutr. 51(5) pp.313-322 (2005)
  14. Tournebize, Julien H. Watanabe, K. Takagi, T. Nishimura, The development of a coupled model (PCPF-SWMS) to simulate water flow and pollutant transport in Japanese paddy fields, Paddy Water Environ. , 4, pp. 39-51, (2006)
  15. Nishimura, T., H. Shirato, M. Hayashi and M. Kato, Effect of Dispersivity of Filling Material on Performance of Contaminant Barrier, J. of ASTM International, 3(6),pp.296-303 (2006)
  16. Hou, H., S. Zhou, M. Hosomi, K. Toyota, K. Yosimura, Y. Mutou, T. Nishimura, M. Takayanagi, and T. Motobayashi. Ammonia emissions from biogas slurry and chemical fertilizer applied to flooded forage rice, Water, Air & Soil pollution, (2007)
  17. Ohnishi, T., M. Kato and T. Nishimura, Evaluating Influence of Different Cover Materials on Runoff and Sediment Loss from Bare Upland Soil using Laboratory Rainfall Simulator, J. of the Jpn. Soc. of Soil Physics 108, 53-66, (2008)
  18. Nagasawa, K., Zhang J., Nishimura T., Saito H., and Kato M., Impact of Pressure Heads Applied to Buried Porous Bottles on Water Supply Characteristics for Subsurface Irrigation, J. of Arid Land Studies, 18(1):11-20 (2008)
  19. Wilfredo A. Dumale Jr., Tsuyoshi Miyazaki, T. Nishimura, and Katsutoshi Seki, CO<sub>2</sub> evolution and short-term carbon turnover in stable soil organic carbon from soils applied with fresh organic matter, GEOPHYSICAL RESEARCH LETTERS, VOL. 35, LXXXXX, doi:10.1029/2008GL036436, (2008)
  20. Yamamoto, T., Y. Shimura, T. Nishimura, H. Andry, S. Moritani, and A. Al-Busaidi, Evaluation of powdered polyacrylamide application along with source of electrolytes in

- controlling sodic soil erosion, *J. Jpn. Soc. Soil Phys.* 110, 53-66 (2008)
21. Krissandi Wijaya, T. Nishimura, Budi Indra Setiawan, S. K. Saptomo, Spatial Variability of Soil Saturated Hydraulic Conductivity in Paddy Field in Accordance to Subsurface Percolation, *Paddy and Water Environ.*, 8(2), 113-120, (2010)
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  24. Dang Quoc Thuyet, Thai Quoc Hien, H. Watanabe, H. Saito, Thai Khanh Phong, T. Nishimura, Micro paddy lysimeter for monitoring Solute transport in paddy environment, *Paddy and Water Environment*, 8, 235-245 (2010)
  25. Khaled Ibrahim, T. Miyazaki and T. Nishimura, A high measurement frequency based assessment of shallow groundwater fluctuations in Metouia Oasis, South Tunisia, *Hydrological Research Letters*, 4, 75-79 (2010)
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  27. Asada, K., T. Nishimura; H. Saito; The effects of subsoil hardpan on the leaching of zinc and copper in soils amended with swine-manure, *J. of Hazardous, Toxic, and Radioactive Waste(ASCE)*, 15(4) 259-265 (2011)
  28. Kato C., T. Nishimura, H. Imoto and T. Miyazaki, Predicting soil moisture and temperature of Andisols under a monsoon climate in Japan, *Vadose Zone J.* 10, 541-551 (2011)
  29. Dumale, W. A. Jr. T. Miyazaki, T. Nishimura, and K. Seki, Short-term dynamics of the active and passive soil organic carbon pools in a volcanic soil treated with fresh organic matter, *E-International Scientific Research Journal*, 3(2), p.128-144 (2011)
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  41. Guo, Linlin, T. Nishimura, H. Imoto and Zhigang Sun, Evaluation of gas diffusivity models for no-tilled and tilled volcanic ash soils, *Archives of Agronomy and Soil Science*, (2016) DOI: 10.1080/03650340.2016.1145791.
  42. Kato C. and T. Nishimura, Predicting soil moisture condition in arbitrary agricultural lands using the digital soil map and soil physical properties database, *Paddy and Water Environment*, DOI: 10.1007/s10333-016-0537-z (2017)
  43. Guan, Z., Tang, X.Y., Yang, J.E., Ok, Y.S., Xu, Z.H., Nishimura, T., Reid, B.J. A review of source tracking techniques for fine sediment within a catchment, *Environmental Geochemistry and Health* (2017)
  44. Guan, Z., Tang, X. Y., Nishimura, T. Katou, H., Liu, H.TY. and Qing, J. Surfactant-enhanced flushing enhances colloid transport and alters macroporosity in diesel-contaminated soil, *J. of Environmental Sciences* (2017)
  45. Yamasaki, T., H. Imoto, S. Hamamoto and T. Nishimura Determination of the role of entrapped air in water flow in a closed soil pipe using a laboratory experiment, *Hydrological Processes*. 31:3740-3749 (2017)
  46. Bandai, T. S. Hamamoto, G. C. Rau, d, T. Komatsu and T. Nishimura, The effect of particle size on thermal and solute dispersion in saturated porous media *J.of International Journal of Thermal Sciences* 122:74-84 (2017, Dec)
  47. Ochi, K., M. Sasaki, Mutsushi Ishida, Shoichiro Hamamoto, Taku Nishimura, Yukihisa Sanada, Estimation of the Vertical Distribution of Radiocesium in Soil on the Basis of the Characteristics of Gamma-Ray Spectra Obtained via Aerial Radiation Monitoring Using an Unmanned Helicopter, *Environmental Engineering and Public Health* (2017)