

Curriculum Vitae

Prof. W. A. Udayakantha Vitharana



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Biography:

Prof. W. A. U. Vitharana graduated from the Faculty of Agriculture, University of Peradeniya in 1999. Later, he joined to the Faculty of Agriculture, University of Peradeniya and possesses 20 years of teaching and research experience as a Probationary Lecturer to Professor of Soil Science at the Department of Soil Science, Faculty of Agriculture. He obtained his M.Sc. and Ph.D. from Ghent University, Belgium on the soil spatial inventory techniques in support of Site-Specific Soil Management. Presently, his research activities are mainly focused on Geospatial assessment of storage soil carbon and dynamics, soil quality and impact of extrinsic and intrinsic factors on the health of the soil system. His work integrates field level primary data and secondary data sources such as proximal and soil sensing, environmental data and remote sensing through classical geostatistical to machine learning based approaches. He is a well experienced soil scientist having great field exposure on soils in tropical and temperate regions. He is a Tier 4* researcher (Scale of Tier 1 to Tier 4*) according to recognition categories identified by the University Grant Commission, Sri Lanka. Also, he teaches undergraduate and postgraduate courses on digital soil mapping, climate change and soils, soil survey and classification, land use planning, environmental soil physics, plant nutrition and introductory courses on soil science.

Personal Data:

Name	Wellewatte Arachchige Udayakantha Vitharana
Address	No 28, Andangama, 20400, Pearadeniya, Sri Lanka.
Email	uvithara@agri.pdn.ac.lk
Nationality	Sri Lankan

Education:

2004-2008	PhD in Applied Biological Sciences: Land Management and Forestry Ghent University, Belgium Thesis title: Spatial Inventory Techniques in Support of Site-Specific Soil Management Promoter: Prof. dr. ir. Marc Van Meirvenne
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2002 – 2004 M.Sc. in Physical Land Resources
Ghent University, Belgium.
Passed with a Greatest Distinction (84% average)
Thesis title: Evaluation of Pedometrical Techniques to Delineate Potential
Management Zones at Within-field Scale
Promoter: Prof. dr. ir. Marc Van Meirvenne

1994 – 1999 B.Sc. in Agriculture
University of Peradeniya, Sri Lanka.
Thesis title: In-vitro Mutagenesis of *Hosta sieboldiana*
Promoter: Prof. S. E. Peiris

Professional Experience:

2022 – to date Chair Professor, Department of Soil Science.

2019 – 2022 Professor in Soil Science

2015 – 2019 Senior Lecturer I
Department of Soil Science
University of Peradeniya, Sri Lanka

2009 – 2015 Senior Lecturer Grade II
Department of Soil Science
University of Peradeniya, Sri Lanka

2001 – 2009 Probationary Lecturer
Department of Soil Science
University of Peradeniya, Peradeniya, Sri Lanka.

1999 – 2001 Plantation Monitoring Officer
Ministry of Plantation Industries, Vauxhall Lane,
Colombo 02.

Courses taught: Undergraduate (UG) and Postgraduate (PG)

- Soil Survey and Classification (UG)
- Land Use Planning (UG/PG)
- Soil Physics (UG)
- Land Use and Environment (UG)
- Precision Agriculture (UG)
- Digital Soil Mapping (PG)

- Geostatistics (PG)
- Precision Agriculture (UG)
- Soils of Sri Lanka (PG)
- Environmental Soil Physics (PG)
- Climate changes and soils (UG)

Research Interests:

- Geospatial modelling of soil C pools and dynamics.
- National and regional level predictive soil mapping by means of exhaustive secondary information.
- Proximal soil sensing.

Appointments:

- Research scholar at University of California, Santa-Cruz, USA from June 2024- August 2025.
Research work related to use of process based modelling and geospatial analysis of soil information to support decision making soil health restoration under changing climate.
- Head/Department of Soil Science, Faculty of Agriculture, University of Peradeniya (2023 – May 2024)
- Professor of Soil Science, Chair professor of the Department of Soil Science (2022-todate)
- Professor in Soil Science on merit (2020 – 2022)
- President, Soil Science Society of Sri Lanka (2021- 2023).
- Faculty Coordinator: Internal Quality Assurance Cell, Faculty of Agriculture, University of Peradeniya
- Chairperson, Board of Study in Soil Science, Postgraduate Institute of Agriculture, University of Peradeniya (2022 - 2024)
- Deputy Proctor: Faculty of Agriculture (2018 – 2019)
- Head: Department of Soil Science, Faculty of Agriculture, University of Peradeniya (from January 2013 – 2017)
- Acting Dean/Faculty of Agriculture for the period 17th October 2014, 26th September to 4th October 2015 and 22nd December to 23rd December 2016.
- Associate Editor – Agronomy Journal. American Society of Agronomy (2019 – 2024)
- Editor in Chief – Tropical Agricultural Research, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka.
- Member of the Management Committee, Postgraduate Institute of Agriculture (from January 2015 – 2018, 2025 todate)
- Senior Lecturer I: Department of Soil Science, Faculty of Agriculture, University of Peradeniya (from 2015 – 2019)
- Senior lecturer II: Department of Soil Science, Faculty of Agriculture, University of Peradeniya (from 2009 –2014)
- Lecturer: Department of soil science, Faculty of Agriculture, University of Peradeniya (from May 2001 to December 2008)
- Plantation Monitoring officer: Ministry of Plantation Industries, Vauxhall Lane (from October 1999 to May 2001)

- Temporary assistant lecturer: Department of Crop Science, Faculty of Agriculture (from February 1999 to October 1999)

Curriculum Development and teaching

- Member of the curriculum Development Committee of the Faculty of Agriculture, University of Peradeniya, Since year 2015.
- Chairperson of Teaching Methodology Unit, Faculty of Agriculture, University of Peradeniya. From 2023 - 2024
- Member of the team appointed for the development of the Curriculum of Animal Science and Fisheries degree program, Faculty of Agriculture, University of Peradeniya.
- Member of the team appointed for the development of Program Learning Outcomes of the revised degree program of Agricultural Technology and Management, University of Peradeniya

Professional Experiences:

- Lead author for the preparation of the global publication “Status of world soil resource - 2026), published by FAO.
- Research Scholar: Environmental Studies Department, University of California Santa Cruz. 12th June 2024 to 31st July 2025.
- Served as a key Editorial Board Member and contributing national expert for Sri Lanka in the creation of the Soil Atlas of Asia published by FAO.
- Visiting Scholar: Department of Environmental Studies and Sciences, University of Winnipeg. 2nd February 2019 – 30th August 2019.
- Visiting Scholar: Environmental Science Division, Argonne National Laboratory, Department of Energy, Illinois, USA (from 1st January to April 30th 2015)
- Visiting Scientist: Department of Soil Management, Ghent University, Belgium (October to November 2011)
- Scientist: Department of Geology and Soil Science, Ghent University, Belgium (October – December 2009).
- Member of Editorial Board: Preparation of Soil Atlas of Asia.
- Chairperson: Board of Study in Soil Science, Postgraduate Institute of Agriculture, University of Peradeniya (from 2022)
- Secretary: Board of Study in Soil Science, Postgraduate Institute of Agriculture, University of Peradeniya (from March 2009 to 2012)
- Associate Editor: Agronomy Journal, American Society of Agronomy (from 2019)
- Editor: Journal of Soil Science Society, Sri Lanka (2012 – 2016)
- Attended to the Global Soil Partnership Training Workshop on The update of Harmonized World Soil Database (HWSD) 5-7 December, 2012, Nanjing, China as a member of the Sri Lankan team responsible for updating the HWSD.
- Induction program for academic staff (Teaching methodology program), Staff Development Centre, University of Peradeniya, Sri Lanka (2009).

Outstanding Achievements

- Research excellence award – 2026 by University Research Council, University of Peradeniya.

- National Award for Excellence in Agricultural Research – 2025 awarded by Sri Lanka Council for Agricultural Research Policy (SLCARP)
- Faculty of Agriculture Annual Research excellence award - 2024
- Research Excellence Award 2021, University of Peradeniya in recognition of Excellence in Research in the year 2021 based on the Transparent Research Performance Scheme Stipulated in UGC circular 05/2018.
- Won 8 president's awards of Sri Lanka for scientific publications for publication years: 2008, 2009, 2017, 2020 and 2021.
- Won SUSRED award 2016 by National Science Foundation, Sri Lanka for Supervising the PhD of Dr. U.K.P.S. Sanjeevani
- Received the Award for the best poster of 20th World Congress of Soil Science 20WCSS. Jeju, South Korea, 8-13 June 2014. For the poster titled "Apparent Electrical Conductivity (ECa) based potential management zones for site specific nutrient management in paddy soils of Sri Lanka (as a co-author)
- Received the prestigious, highly competitive south initiative-2012 research grant from the University Development Cooperation, Belgium. This project entitled "Implementing novel technologies for the spatial inventory of soil quality" with a budget allocation of 73,060.00 Euros.
- Received the Award for the best poster of the 8th International conference on Geostatistics for Environmental Applications, Sept 13 -15, Ghent, Belgium. For the poster titled "Spatial distribution of plant anatomical and morphological characteristics for biomonitoring of urban habitat quality (as a co-author)
- PhD scholarship from the Special Research Fund of the Ghent University, Belgium (2004-2008). Flemish Interuniversity Council (VLIR) scholarship for the advance university education in Flanders, Belgium (2002-2004)
- PhD scholarship from the Special Research Fund of the Ghent University, Belgium (2004-2008).
- Flemish Interuniversity Council (VLIR) scholarship for the advance university education in Flanders, Belgium (2002-2004)
- Award of De Boodt-Maselis for Eremology (2003 – 2004) for outstanding scholarly during M.Sc. in Physical Land Resources at Gent University, Belgium.
- Scholarship for most meritorious students in the faculty of Agriculture, by Chemical Industries Ceylon (CIC) Ltd.(1998)

Research Funding:

Upon the completion of my PhD research, I have involved in conducting researches in areas, namely Proximal Soil Sensing, Spatial Characterization of Soil Properties, Site-specific Soil management and Digital Soil Mapping. I have received following research grants for the period 2009 -2017.

- Mapping of salinity development in paddy grown soils using proximal and remote sensing-based techniques (RG/2021/AG/03)
Granting agency: National Science Foundation
Status: Ongoing
Role: Principal Investigator
Value of the grant: Rs. 4.3 million

- Preparation of Land Productivity Dynamic Data under the Global Environment Facility (GEF) support to UNCCD 2018 National Reporting Process. Umbrella II Project-2021
Granting agency: Global Environment Facility (GEF)
Status: Completed
Role: Principal Investigator
Value of the grant: Rs. 1.488 million
- Preparation of Soil Organic carbon Inventory and map for Sri Lanka under the Global Environment Facility (GEF) support to UNCCD National Reporting Process, Umbrella II Project-2020
Status: Completed
Granting agency: Global Environment Facility (GEF)
Role: Principal Investigator
Value of the grant: Rs. 4.52 million
- Sri Lanka Council for Agricultural Research Policy of Ministry of Agriculture (SLCARP) Grant-2018
Project title: Status of potentially toxic trace elements in surface soils in Anuradhapura and Polonnaruwa districts (NARP/19/UP/AG/01)
Role: Co-Investigator
Value of the Grant: Rs. 15.55 million
- National Thematic Research Programme on Climate Change & Natural Disasters Grant - 2018.
Project Title: Comparative Analysis of Climate-Resilient Biodiversity of Homegarden Ecosystems in different Agro-ecological regions of Sri Lanka.
Status: Completed (NTRP/217/CC&ND/TA-04/P-02/01)
Role: Co-Investigator.
- National Research Council Competitive Grant -2017
Project title: Baseline concentrations, solubility and spatial variability of potentially toxic trace elements in soils in Up- and Mid-country Wet zone in Sri Lanka
Status: Completed (NRC 17-025)
Value of the Grant: Rs. 4.9 Million
Role: Co-investigator
- National Research Council Target Oriented Research Grant -2016
Project Title: Development of eco-friendly farming technologies to minimize inorganic fertilizer usage while maintaining adequate productivity and improving soil fertility
Status: Completed (NRC/TO/16-07)
Value of the Grant: Rs. 50 Million
Role: Team leader of work package 1: Development of farmer friendly Site-specific Nutrient Management Technique for rice cultivation through the Nutrient Expert® decision support tool
- Sri Lanka Council for Agricultural Research Policy of Ministry of Agriculture (SLCARP) Grant-2016

- Project title: Development of detailed spatial inventory of soil phosphorus and organic carbon stocks at sub-catchment scale (NARP/16/UP/AG/02)
 Role: Principal Investigator
 Status: Completed
 Value of the Grant: Rs. 1.657 million
- South Initiative Research Grant -2012, University Development Cooperation, Belgium.
 Project title: Implementing Novel Technologies for the Spatial Inventory of Soil Quality
 Value of the Grant: 73,060.00 Euro
 Role: Principal Investigator
 Status: Completed
 - National Science Foundation, Sri Lanka Competitive Research Grant -2012.
 Project title: Use of Electromagnetic Induction Based Soil Apparent Electrical Conductivity (ECa) Measurements to Support Soil Management of Paddy Cultivations
 Value of Grant: Rs. 1.7 Million
 Role: Principal Investigator
 Status: Completed
 - National Research Council Competitive Grant -2011
 Project title: Investigation of Background Concentrations and Spatial Distribution of Heavy Metals in Surface Soils and Crops in Agricultural Fields in Sri Lanka
 Status: Completed
 Value of the Grant: Rs. 3.2 Million
 Role: Co-investigator
 - University Research Grant- 2012
 Digital mapping of soil properties using topographic-soil relationships
 Status: Completed
 Role: Principal Investigator
 Value of the Grant: Rs. 70,500.00
 - National Research Council Competitive Grant -2012
 Characterization of Soils in the Northern region of Sri Lanka to develop a soil data base for land use planning and environmental applications
 Status: Completed (12-122)
 Role: Co-Investigator
 Value of the Grant: Rs. 2,686,500.00
 - University Research Grant- 2009
 Digital mapping of soil texture in the University research farm at Dodangolla
 Status: Completed
 Role: Principal Investigator
 Value of the Grant: Rs. 135,000.00

Supervision of Postgraduate Researches:

- Senior supervisor the MPhil thesis titled “Digital mapping of soil properties using soil-landscape relationships” Name of the student: Mr.V.G.D. Nayanaka. Status: Completed in 2012.
- Co- Supervisor of the PhD research “Investigation of Background Concentrations and Behavior of Trace Metals in a Selected Soil Association of Dry Zone of Sri Lanka”. Name of the Student. Sanjeevani U.K.P.S. Status: completed in 2015.
- Senior Supervisor of the MPhil research “Site specific nutrient management for paddy soils on the basis of potential management zones delineated through proximal soil sensing. Name of the Student. R.A.A.S. Rathnayaka. Status: Completed in 2019.
- Senior Supervisor of the MPhil research “ Determination of growth and yield responses of paddy for applied N, P and K in paddy growing environments in Sri Lanka”. Tharindu Kulasekara. Completed in 2022.
- Senior Supervisor of the PhD research “Spatio-temporal characterization of soil and water salinity in an irrigated farming system in the dry zone of Sri Lanka using proximal soil sensing”, Name of the Student: C.M.J. Perera. Status: Completed in 2026.

Scientific Publications:

h-index: 16

i10 Index : 16

- Vitharana, U. W. A., Campbell, E. J., Campbell, S. B., Ghezzehei, T. A., & Mishra, U. (2026). Model-based assessment shows that soil texture determines the impact of soil organic carbon depletion on plant-available water. *Geoderma*, 472. <https://doi.org/10.1016/j.geoderma.2026.117909>
- Silva, R. N., Attanayake, C., Vitharana, U. W. A., & Weerasinghe, P. (2026). Estimation of bioaccessibility of lead in intensive vegetable growing soils in Sri Lanka and screening of the Mehlich 3 extraction method to estimate total and bioaccessible lead (Pb) concentration in soil. *Arabian Journal of Geosciences*, 19(7), 121. <https://doi.org/10.1007/s12517-026-12515-2>
- Casson, N. J., Attanayake, C. P., Amarawansa, G., Gamhewage, M., Kumaragamage, D., Leathers, J. G., & Vitharana, U. W. A. (2025). Drivers of the variability of soil phosphorus fractions in boreal forested watersheds. *Facets*, 10. <https://doi.org/10.1139/facets-2025-0086>
- Kulasinghe, T. N., Vitharana, U. W. A., Kumaragamage, D., Dharmakeerthi, R. S., Majumdar, K., Sirisena, D. N., & Rathnayake, U. K. (2025). Increasing Yields and Partial Factor Productivity of Rice Grown in Tropical Alfisols Using a Decision Support Tool. *Rice Science*. <https://doi.org/10.1016/j.rsci.2025.05.002>
- Nayanarangani, M. D. P., Vitharana, U. W. A., Kumaragamage, D., & Casson, N. J. (2025). Changes in soil organic carbon and phosphorus status under three different land use systems in a tropical Ultisol. *Geoderma Regional*, 41. <https://doi.org/10.1016/j.geodrs.2025.e00950>

- Vitharana, U.W.A., N. J. Casson, D. Kumaragamage, U. Mishra, K. Friesen-Hughes 2024. Factors controlling the spatial heterogeneity of soil organic carbon concentrations and stocks in a boreal forest, *Geoderma Regional*, Volume 36, 2024,e00749.
- Kumarasiri, U.W.L.M., Vitharana, U.W.A., Ariyawansa, T. and Kulasekara, B.R., 2024. Use of Drone Imagery to Predict Leaf Nitrogen Content of Sugarcane Cultivated Under Organic Fertilizer Application. *Tropical Agricultural Research*, 35(1), p.11-23.
- Lowe, W. A. M., D. K. N. G. Pushpakumara, H. L. J. Weerahewa, U.W. A. Vitharana, B. Marambe, B. V. R. Punyawardena, G. L. L. P. Silva 2023. Enhancing Household Food Security and Dietary Diversity through Homegardens: A Case Study in Selected Districts of Sri Lanka. *Tropical Agricultural Research*, 34(3):170-187.
- Udaya W.A. Vitharana, Darshani Kumaragamage, B.L.W.K. Balasooriya, Srimathie P. Indraratne, Doug Goltz. 2021. Phosphorus mobilization in unamended and magnesium sulfate-amended soil monoliths under simulated snowmelt flooding, *Environmental Pollution*, 287: 117619, <https://doi.org/10.1016/j.envpol.2021.117619>.
- Hemamali, D.D.A.E., Vitharana, U.W.A., Balasooriya, B.L.W.K., Attanayake, C.P., Dandeniya, W.S. and Nimanthi, S.I., 2020. Impact of agricultural land use on soil organic carbon sequestration at sub-catchment scale. *Tropical Agricultural Research*, 31(1), pp.13–20.
- Kulasinghe, H.P.G.T.N., Vitharana, U.W.A., Dharmakeerthi, R.S., Sirisena, D.N. and Rathnayake, W.M.U.K., 2020. Exploring the Yield Response of Paddy (*Oryza sativa* L.) under Varying Levels of Soil Nitrogen, Phosphorus and Potassium. *Tropical Agricultural Research*, 31(4), pp.01–12.
- Vitharana. U.W.A., U. Mishra and R.B.Mapa (2019). National soil organic carbon estimates can improve global estimates. *Geoderma*. Vol 337, 55-64.
- Rathnayaka, R.A.A.S., Vitharana, U.W.A. and Balasooriya, W.K., 2018. Detailed mapping of soil texture of a paddy growing soil using multivariate geostatistical approaches. *Tropical Agricultural Research*, 29(4), pp.300–312.
- Ratnayake, U.A.J., Weerasinghe, K.D.N., Vitharana, U.W.A. and Chandika, K.K.J., 2018. Potential of Eppawala rock phosphate as a phosphorus fertilizer for rice cultivation in acid sulphate soils in Matara District of Sri Lanka. *Tropical Agricultural Research*, 29(4), pp.293–299.
- Jayasekara M.J.P.T.M., Kadupitiya H.K. and Vitharana U.W.A. Mapping of Soil Erosion Hazard Zones of Sri Lanka. *Tropical Agricultural Research*, 29(2), pp.135–146.
- Vitharana. U.W.A., U. Mishra, J.D. Jastrow, R. Matamala and Z. Fan. (2017). Capturing spatial heterogeneity of high latitude soil organic carbon under changing climate. *Journal of Geophysical Research : Biogeoscience*. Vol 122, 2: 415-429
- Sanjeevani U.K.P.S, Indraratne , S.P Weerasooriya S.V.R., U.W.A. Vitharana and D. Kumaragamage (2017). Identifying the sources and contamination status of potentially toxic trace elements in agricultural soils. *Communications in Soil Science and Plant Analysis*. Vol 48, No.8,865-877
- Rosemary. F., U.W.A.Vitharana, S.P.Indraratne, ,R.Weerasooriya and U. Mishra (2017). Exploring the Spatial Variability of Soil Properties in an Alfisol Soil Catena. *Catena* 150: 53-61.
- Mishra U., Beth Drewniak, Julie D. Jastrow, Roser M. Matamala, U.W.A. Vitharana (2017) Spatial representation of organic carbon and active-layer thickness of high latitude soils in CMIP5 earth system models. *Geoderma*. 300 : 55-63.

- Sanjeevani U.K.P.S, Indraratne S.P Weerasooriya S.V.R. and U.W.A. Vitharana 2015. Baseline Concentrations of Some Trace Elements in Tropical Alfisols of Sri Lanka. *Geoderma Regional* 4, 73-78
- Perera R.A.C.J., U.W.A.Vitharana and N.R.A. Nawarathne, 2015. Elucidation of spatial variability of salinity in soils in a rice - other field crops cropping system using proximal soil sensing. *Tropical Agriculturist* 165, 59-73.
- Rathnayaka R.A.A.S. and U. W. A. Vitharana. 2015. Exploring the short-scale spatial variability of a Calcic Red Latosol using DUALEM-1S proximal soil sensor. *Tropical Agricultural Research*, 26.
- Sanjeevani U.K.P.S, Indraratne S.P Weerasooriya S.V.R. and U.W.A. Vitharana. 2013. Baseline values of Cadmium and Zinc in Three Land Uses in a Selected Mapping Unit of the Dry-zone of Sri Lanka. *Tropical Agricultural Research*, 25(1): 83-95
- Rosemary F., U.W.A.Vitharana, S.P.Indraratne and R.Weerasooriya (2013). Trace metal concentrations of Cadmium, Copper, Lead, Nickel and Zinc in Different Land uses in a Dry zone catena of Sri Lanka, *Tropical Agricultural Research*, 25
- Sanjeevani U.K.P.S., Indraratne S.P. Weerasooriya S.V.R. and U.W.A. Vitharana 2012. Characterization of an Alfisol in the Dry-zone of Sri Lanka to understand the retention mechanisms of pollutants. *Tropical Agricultural Research*, 24(3): 258-269
- Nayanaka, V.G.D, Vitharana U.W.A., and Mapa R.B.2011. Spatial Variability of Soil Texture, Organic Carbon and Cation Exchange capacity of a Reddish Brown Latasolic soil in a Slopy landscape. *J. Soil Science Society of Sri Lanka*: vol 23: 21-30.
- Nayanaka, V.G.D, Vitharana U.W.A., and Mapa R.B. 2010. Geostatistical analysis of soil proprieties to support spatial sampling in a paddy growing Alfisols. *Tropical Agricultural Research Vol 22*: 34-44.
- Simpson D., Van Meirvenne M., Saey T., Vermeersch H., Bourgeois J., Lehouck A., Cockx L., Vitharana U.W.A. 2009. Evaluating the multiple coil configurations of the EM38DD and DUALEM-21S sensors to detect archaeological anomalies. *Archaeological Prospection* 16 :91-102
- L. Cockx, M. Van Meirvenne, U.W.A. Vitharana, L.P.C. Verbeke, D. Simpson, T. Saey and F.M.B. Van Coillie. 2009. Extracting topsoil information from EM38DD sensor data using a neural network approach. *Soil Science Society of America Journal*, 73 (6): 1-8.
- Kardel, F., K. Wuyts, M. Babanezhad, U.W.A. Vitharana, T. Wuytack, G. Potters, R. Samson. 2009. Assessing urban habitat quality based on specific leaf area and stomatal characteristics of *Plantago lanceolata* L. *Environmental Pollution*, 158(3): 788-794.
- Vitharana, U.W.A., T. Saey, L. Cockx, D. Simpson, H. Vermeersch, and M. Van Meirvenne. 2008. Upgrading a 1/20,000 soil map with an apparent electrical conductivity survey. *Geoderma* 148:107-112.
- Vitharana, U.W.A., M. Van Meirvenne, D. Simpson, L. Cockx, and G. Hofman. 2008. Agronomic consequences of potential management zones delineated on the basis of EM38DD measurements. *Near Surface Geophysics* 6:289-296.
- Vitharana, U.W.A., M. Van Meirvenne, D. Simpson, L. Cockx, and J. De Baerdemaeker. 2008. Key soil and topographic properties to delineate potential management classes for precision agriculture in the European loess area. *Geoderma* 143:206-215.
- Saey, T., D. Simpson, U.W.A. Vitharana, H. Vermeersch, J. Vermang, and M. Van Meirvenne. 2008. Reconstructing the paleotopography beneath the loess cover with the aid of an electromagnetic induction sensor. *Catena* 74:58-64.

- Balasooriya, B.L.W.K., R. Samson, F. Mbikwa, U.W.A. Vitharana, P. Boeckx, and M. Van Meirvenne. 2009. Biomonitoring of urban habitat quality by anatomical and chemical leaf characteristics. *Environmental and Experimental Botany* 65:386-394..
- Vitharana, U.W.A., M. Van Meirvenne, L. Cockx, and J. Bourgeois. 2006. Identifying potential management zones in a layered soil using multiple sources of ancillary information. *Soil Use and Management* 22:405-413.
- Vitharana, U.W.A., and S.E. Peiris. 2002. An investigation of in vitro mutagenesis of *Hosta sieboldiana*. *Sri Lankan Journal of Agricultural Science* 39:94-101.

Chapters of Books

- Vitharana U.W.A & Mapa R.B. 2020. Soil Survey, Classification and Mapping in Sri Lanka: Past, Present and Future . In, B. Marambe, J. Weerahewa & W.S. Dandeniya (Eds). *Agricultural Research for Sustainable Food Systems in Sri Lanka Volume 1: A Historical Perspective*. Springer Nature , pp. 77-100.
- Cockx L., Van Meirvenne M., Vitharana U.W.A., Van Coillie F.B.M., Verbeke L.P.C., Simpson D. & Saey T. 2010. A Neural Network Approach to Topsoil Clay Prediction Using an EMI-Based Soil Sensor. In: R.A. Viscarra Rossel, A. Mc Bratney & B. Minasny (Eds.) *Proximal Soil Sensing*. Progress in Soil Science, Springer, pp. 245-254, ISBN: 978-90-481-8858-1.
- Saey T., Van Meirvenne M., Simpson D., Vitharana U.W.A., Cockx L. & Vermeersch H. 2010. Reconstructing Paleotopography at the Beginning of the Weichselian Glacial Stage Using an Electromagnetic Induction Sensor. In: R.A. Viscarra Rossel, A. Mc Bratney & B. Minasny (Eds.) *Proximal Soil Sensing*. Progress in Soil Science, Springer, pp. 423-434, ISBN: 978-90-481-8858-1.

Conference and workshop Proceedings:

- Vitharana, U.W.A, Mishra U. and Dhananjaya R.G.B. 2024. Digital soil mapping of Soil pH in the Wet Zone of Sri Lanka. Proceedings of 16th International Conference of the East and Southeast Asia Federation of Soil Science Societies. March 26-29, 2024. Page 25.
- Marasinghe, B.S., W.A.U. Vitharana, R. Chandrajith, and H.P.U. Fonseka 2023. Spatial Analysis of Chronic Kidney Disease of Unknown Aetiology (CKDu) Prevalence in Badulupura Village, Sri Lanka. Proceedings of Thirty-Fifth Annual Congress of the PGIA, 17 November 2023. Page 14.
- Noyalin, M., D. Kumaragamage, K.A.D.S. Nirmal, R.A.C.J. Perera and W.A.U. Vitharana 2023. Spatial Characterization of Soil Salinity Using Proximal Soil Sensing for Delineating Management Zones of a Paddy Grown Soil. Proceedings of Thirty-Fifth Annual Congress of the PGIA, 17 November 2023. Page 12.

- Nayanarangani, M.D.P., Vitharana, U.W.A., Kumaragamage, D. & Casson N.J..2022. Impact of Land Use on Phosphorus and Carbon Status of Soils of a Tropical Ultisol. 15th International Conference of the East and Southeast Asia Federation of Soil Science Societies (ESAFS2022). Royale Chulan Hotel, Kuala Lumpur, Malaysia. 22-26 August 2022
- Vitharana, U. W. A., Casson, N. J., Munasinghe, M. M. S. M., Kumaragamage, D., & Mishra, U. 2021. National Scale Digital Mapping of Soil Physical and Chemical Properties [Abstract]. ASA, CSSA, SSSA International Annual Meeting, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2021am/meetingapp.cgi/Paper/137922>
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