CURRICULUM VITAE

WELLEWATTE ARACHCHIGE UDAYAKANTHA VITHARANA

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 the application of Pedometric techniques for soil mapping, spatial characterization for soil properties and sustainable land use planning and management and site-specific plant nutrient management. 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, 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
Home Address : No 28, Andangama, Pearadeniya, 20400, Sri Lanka
Office Address : Department of Soil Science, Faculty of Agriculture, University of Peradeniya 20400, Peradeniya
Telephone : + 94 (0)718386063
Email : uvithara@agri.pdn.ac.lk, uvithara@gmail.com

Academic Degrees:

2004-2008 Ph.D. 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

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:

From 2022 Chair Professor, Department of Soil Science, Faculty of Agriculture, University of Peradeniya.

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.

Research Interests:

- Digital soil mapping
- Modelling spatial and temporal dynamics of Soil Organic Carbon.
- Geospatial analysis and interpretation of soil information to support Beneficial Management Practices (BMPs) and Precision Agriculture.
- Proximal soil sensing

Courses Taught and Coordinated

Undergraduate

- Soil Survey and Classification
- Land use planning
- Soil Physics
- Land use and environment
- Precision Agriculture
- Soil Resource and Ecosystem
- Properties and Functions of Soils
- Management of Soils of Sri Lanka
- Land degradation and Conservation
- Research Techniques in Soil Science
- Management of Soils of Sri Lanka
- Environmental Soil Physics
- Soils of Sri Lanka

Postgraduate

- Digital Soil Mapping
- Applications of Digital Soil Mapping
- Applications and Development of GIS and Remote Sensing
- Geostatistics in GIS

Professional Qualifications:

- **Professor of Soil Science –** Chair Prof. Department of Soil Science, Faculty of Agriculture, University of Peradeniya (from 2nd May 2022)
- **Professor in Soil Science -** Department of Soil Science, Faculty of Agriculture, University of Peradeniya (31st January 2019 to 2nd May 2022)
- **Senior Lecturer I-** Department of Soil Science, Faculty of Agriculture, University of Peradeniya (from 1st January 2015 – 30th January 2019)
- **Senior lecturer II-** Department of Soil Science, Faculty of Agriculture, University of Peradeniya (from 1st January 2009 – 31st December 2014)
- **Lecturer -** Department of Soil Science, Faculty of Agriculture, University of Peradeniya (May 2001 to December 2008)
- **Head-** Department of Soil Science, Faculty of Agriculture, University of Peradeniya (2013 – 2016)
- **Acting Dean/Faculty of Agriculture**; 17th October 2014; 26th September to 4th October 2012, 22nd December to 23rd December 2016.

- **Deputy Proctor**, Faculty of Agriculture, University of Peradeniya (2018-2019)
- **Chairperson**-Board of Study in Soil Science, Postgraduate Institute of Agriculture, University of Peradeniya (2017-2019, 2022 onwards)
- **Member**- Board of Management, Postgraduate Institute of Agriculture, University of Peradeniya (2016 – 2019)
- **Coordinator** of the Postgraduate Degree Program: Environmental Soil Science, offered by the Board of Study in Soil Science, Postgraduate Institute of Agriculture, University of Peradeniya. (Years: 2009-2012, 2018 – 2022)
- **Coordinator-** 30th Annual Congress of Postgraduate Institute of Agriculture, University of Peradeniya (2018)
- **Coordinator** for the Internal Quality Assurance Unit (IQAU), University of Peradeniya, representing the Agriculture Faculty Quality Assurance Cell (2018, from 2022)
- **President -**Soil Science Society of Sri Lanka (From 2021)
- **Chairperson**- Scientific Committee of the 10th International Conference of the East and Southeast Asia (2011)
- **Member**-Technical Advisory committee for the Implementation of National Action Program (NAP) for Combating Land Degradation for the period 2015-2024.
- **Vice-President**-the Peradeniya University Agriculture Faculty Teachers' Association (PUATA) (2012)
- **Visiting Scholar**

  - University of Winnipeg, Canada (February 2019-September 2019)
  - Environmental Science Division, Argonne National Laboratory, Department of Energy, Illinois, USA (from January to April 2015)
  - Ghent University Belgium (October to November 2011 and October to December 2009)

- **Senior Treasurer-** Soil Science Society of Faculty of Agriculture, University of Peradeniya (2010 -2014)
- **Coordinator- T**he Postgraduate Degree Program: Environmental Soil Science, Postgraduate Institute of Agriculture, University of Peradeniya (2009-2012)
- **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)
- **Member/Secretary*** of sub-committees of the Faculty of Agriculture
  - Curriculum Development Committee : 2013- to date
  - Teaching Methodology Unit
  - Faculty Research Committee : 2013 – 2014*, 2016 – 2018*
  - Faculty E-Learning Committee : 2010 – 2013, 2015 - 2016
  - Computer Unit Management Committee : 2011 – 2012*
  - Student Advisory and Welfare Committee : 2010, 2018
  - Time Table Committee: 2015, 2016

- Member & Coordinator Faculty Quality Assurance Cell : 2016-2018, from 2021)

Contribution as an Editorial and Reviewer

- **Associate Editor** - Agronomy Journal, American Society of Agronomy (Since 2019)
- **Editor** Tropical Agricultural Research Journal (2018/2019)
- **Editor** Journal of Soil Science Society, Sri Lanka (2012 – 2016)
- **Editorial Board Member** Development of Soil Atlas of Asia as appointed by Global Soil Partnership, Food and Agriculture Organization (FAO) (2018)
- **Editor of Soil Science Society of Sri Lanka** (2012-2016)
- **Reviewer** Journal of Arctic, Antarctic and Alpine Research (2018)
- **Reviewer** Journal of computers and electronics in agriculture (2018)
- **Reviewer** Journal of land Degradation and Development (2018)
- **Reviewer** Journal of PLOS ONE (2017)
- **Reviewer** Environmental Monitoring and Assessment (2015)
- **Reviewer** Journal of Bio Systems Engineering (2015)
- **Reviewer** Agronomy Journal, American Society of Agronomy (2013-todate)

Workshop/Trainings Participated/Conducted

- **Participant** International Training Workshop on BeiDou Technologies and Its Applications in the Belt and Road Countries and Regions. Organized by China Satellite Navigation Office-Academic Exchange Center (CSNO-AEC) (September19-30, 2022)
- **Participant** Training program on environmental impact assessment conducted by Institute of Environmental Professionals Sri Lanka in collaboration with the Central Environmental Authority. (20-23rd September 2021).
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- **Resource Person** Workshop on "Soil and water conservation for sustainable plantation crop production. Organized by the Department of Crop Science in Collaboration with the Centre for Environmental Studies (CES) of the University of Peradeniya (19th March 2018).
- **Coordinator/Resource Person** – 2018. Training program of laboratory analysis for A/L students of Dharmaraja College, Kandy (19th February 2018).
- **Resource Person & coordinator** One Day workshop on the use of GPS and Google Earth tools in research. Workshop offered by the Board of Study in Soil Science, Postgraduate Institute of Agriculture, University of Peradeniya. i) 26th May 2016, Postgraduate Institute of Agriculture, Peradeniya ii) 9th February 2017, Colombo Branch of PGIA.
- **Resource Person** One day workshop on applications of GPS and GIS in Research. Offered by the Soil Science Society of Faculty of Agriculture for undergraduate students. (2011, 2014, 2016 and 2017).
- **Resource Person** – 2016. Workshop for school children (Ordinary Level) of North Central province. University sub campus, Mahaillupallama (14th July 2016)

- **Participant** GEF/FAO project on Rehabilitation of Degraded Agricultural Lads in Kandy, Badulla and Nuwara Eliya Districts in the Central Highlands – Inception Workshop (2016)
- **Resource Person**. Certificate course on soil and water analysis. Course offered by the Board of Study in Soil Science, Postgraduate Institute of Agriculture, University of Peradeniya. (25th to 30th April 2016)
- **Resource Person** Training program on "Tissue Culture, Soil Science and Food Science and Technology" Program organized by the Agriculture Education Unit (AEU) (2014)
- **Resource Person & coordinator** Certificate Course on Soil, Plant, Water and Fertilizer Analysis. Course offered by the Board of Study in Soil Science, Postgraduate Institute of Agriculture, University of Peradeniya (17th to 21st February 2014)
- **Rapporteur** – 2013. At the workshop on awareness on new curricula and assessments, hold on 13th February 2013 at the Faculty of Agriculture.
- **Participant** Global workshop on proximal soil sensing 2013. Potsdam, Germany (2013).
- **Participant** Global Soil Partnership Training Workshop on the update of Harmonized World Soil Database (HWSD) 5-7 December, 2012, Nanjing, China (2012).
- **Resource Person** Certificate course on general agriculture. Course offered Agriculture Education Unit, University of Peradeniya. (24th January – 22nd March 2012)
- **Resource Person** –Residential training program for G.C.E. (A/L) school teachers. 28-30th June 2010. Faculty of Agriculture, University of Peradeniya (2010)
- **Resource Person** Workshop on "Current trends of crop nutrient management in Sri Lanka" organized by Board of Study in Soil Science in conjunction with International Plant Nutrition Institute (IPNI). Postgraduate Institute of Agriculture, University of Peradeniya (2012)
- **Participant** Workshop on peer evaluation – Faculty of Agriculture, University of Peradeniya (2010)
- Participant Induction program for academic staff (Teaching methodology program), Staff Development Centre, University of Peradeniya, Sri Lanka (2009)
- **Participant** Course on English for Scientific Purposes, Language Centre, Ghent University, Belgium (2002)
- **Participant:** the course English for Scientific Purposes (40 teaching hours) at the Talen Centrum, Ghent University, Belgium (2002)
- **Participant** Short training course on design and analysis of experiments, Board of study in biometry, Postgraduate Institute of Agriculture, University of Peradeniya (2001)

Awards, Scholarships/Grants

- Research Excellence Award 2021, University of Peradeniya
- SUSRED award of National Science Foundation, in recognition of supervision of the Ph.D titled "Investigation of background concentrations and behaviour of trace metals in a selected soil association of dry zone of Sri Lanka" by Dr. U.K.P.S. Sanjeevani (2016)
- Best Poster Award at the 20th World Congress of Soil Science, held in Jeju, Korea, 13th June (2014). Poster titled "Apparent Electrical Conductivity (ECa) based potential management zones for site specific nutrient management in paddy soils of Sri Lanka"
- Best Poster Award of geoENV 2010 (8th International Conference on Geostatistics for Environmental Application) Poster titled "Spatial Distribution of Plant Anatomical and Morphological Characteristics for Biomonitoring of Urban Habitat Quality"

- Presidential Awards for Scientific Publication (Six awards 2008, 2009 and 2010)
- De Boodt-Maselis for the Eremology award for the academic year 2002-2003 to outstanding scholarly during the period of study (Postgraduate Program of Physical Land Resources) (2004)
- Canadian Queen Elizabeth II Diamond Jubilee Scholarships (QES) Advanced Scholars (QES-AS) program. Recipient and Member of Proposal Writing Team.
- PhD scholarship, The Special Research Fund of the Ghent University, Belgium (2004-2008).
- Flemish Interuniversity Council (VLIR) scholarship, Belgium (2002-2004) to follow International Masters Program "Physical Land Resources"
- Scholarship for most meritorious students in the faculty of Agriculture, by Chemical Industries Ceylon (CIC) Ltd.(1998)

Curriculum Development

- Member of the curriculum Development Committee of the Faculty of Agriculture, University of Peradeniya, Since year 2015.
- Secretary of the Teaching Methodology Unit : 2021
- Member of the team appointed for the development of the Curriculum of Animal Science and Fisheries degree program
- 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

National Contribution

- Member of the expert team: Preparation of the National Land Use Policy of Sri Lanka. Appointed by the Land Use Policy Planning Department, Sri Lanka.
- Member of the committee for preparation of an organic fertilizer production and application protocol – 2020-202. Appointed by State Ministry of Production and Supply of Fertilizer and Regulation of Chemical Fertilizer and Insecticide Use
- Member of the Technical Advisory committee of Implementation of National Action Program (NAP) for combating land degradation for the period 2015-2024. Appointed by the Ministry of Mahaweli Development and Environment.
- Member of the Fertilizer Standard Evaluation Committee Faculty Nomination. Appointed by Ministry of Agriculture, Year 2015
- Member of Stakeholder representation group for the preparation of National Action Program (NAP) program for combating land degradation for the period 2015-2024. Years 2014-2015. Appointed by Ministry of Mahaweli Development and Environment

Research Funding

- 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 ll Project-2021
  Granting agency: Global Environment Facility (GEF)
  Role: Principal Investigator
  Status: On going
  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 ll Project-2020
  Granting agency: Global Environment Facility (GEF)
  Role: Principal Investigator
  Status: On going
  Value of the grant: Rs. 4.52 million

- Project Title: Comparative Analysis of Climate-Resilient Biodiversity of Homegarden Ecosystems in different Agro-ecological regions of Sri Lanka.
  Grant scheme : National Thematic Research Programme on Climate Change & Natural Disasters of National Science Foundation.
  Value of the Grant: Rs. 29.384 Million
  Project duration – 2018-2021
  Status: On going (NTRP/217/CC&ND/TA-04/P-02/01)
  Role: Co-Investigator

- 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
  Grant Scheme: National Research Council Competitive Grant -2017
  Value of the Grant: Rs. 4.9 Million
  Project duration- 2018-2020
  Status: Ongoing (NRC 17-025)
  Role: Co-Investigator

- Project Title: Development of eco-friendly farming technologies to minimize inorganic fertilizer usage while maintaining adequate productivity and improving soil fertility
  Grant Scheme: National Research Council Target Oriented Research Grant -2016
  Value of the Grant: Rs. 50 Million
  Project duration- 5 Years
  Status: on going (NRC/TO/16-07)
  Role: Co-Investigator and Team Leader

- Project title: Development of detailed spatial inventory of soil phosphorus and organic carbon stocks at sub-catchment scale
  Grant Scheme: Sri Lanka Council for Agricultural Research Policy of Ministry of Agriculture (SLCARP) Grant- (NARP/16/UP/AG/02)
  Value of the Grant: Rs. 1.657 million
  Project duration- 2016-2018.
  Role: Principal Investigator

- Project title: Implementing Novel Technologies for the Spatial Inventory of Soil Quality
  Grant Scheme: South Initiative Research Grant, University Development Cooperation, Belgium (ZEIN2012Z121).
  Value of the Grant: Rs. 14 Million 73,060.00 Euro
  Status: Completed in 2014
  Role: Principal Investigator

- Project title: Use of Electromagnetic Induction Based Soil Apparent Electrical Conductivity (ECa) Measurements to Support Soil Management of Paddy Cultivation in the Intermediate Zone
  National Science Foundation, Sri Lanka Competitive Research Grant -2012.
  Value of Grant: Rs. 1.74 Million
  Status: Completed
  Role: Principal Investigator

- Project title: Investigation of Background Concentrations and Spatial Distribution of Heavy Metals in Surface Soils and Crops in Agricultural Fields in Sri Lanka
  Grant Scheme : National Research Council Competitive Grant -2011
  Value of the Grant: Rs. 3.2 Million
  Project duration – 2011 to 2015
  Status: Completed
  Role: Co-Investigator & Principal Investigator.

- Project title: Digital mapping of soil properties using topographic-soil relationships
  Grant Scheme: University Research Grant- 2012
  Status: Completed
  Value of the Grant: Rs. 70,500.00
  Status: Completed
  Principal Investigator

- Project Title: Characterization of Soils in the Northern region of Sri Lanka to develop a soil data base for land use planning and environmental applications
  Grant Scheme: National Research Council Competitive Grant -2012 (12-122)
  Value of the Grant: Rs. 2,686,500.00
  Completed: 2012-2014
  Role: Co-Investigator

- Project Title: Digital mapping of soil texture in the University research farm at Dodangolla
  Grant Scheme: University Research Grant- 2009
  Value of the Grant: Rs. 135,000.00
  Status: Completed

Supervision of Postgraduate Research

Ph.D Research Supervision

- Research Title: Investigation of Background Concentrations and Behavior of Trace Metals in a Selected Soil Association of Dry Zone of Sri Lanka.
  Name of the Student : U.K.P.S. Sanjeevani
  Status: completed in 2015
  Role : Supervisor

- Research Title: Mapping of short scale variability of soil heavy metals
  Name of the Student : F. Rosemary
  Status: On-going
  Role : Senior Supervisor

- Research Title: 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 : CMJ peerera
  Status: On-going
  Role : Senior Supervisor

- Research Title: Potential etiological factors governing spatial patterns of the prevalence of Chronic Kidney Disease of uncertain etiology (CKDu) in Sri Lanka
  Name of the Student : Buddika Sampath Marasinghe
  Status: On-going
  Role : Senior Supervisor

M.Phil. Research Supervision

- Research Title: Digital mapping of soil properties using soil-landscape relationships
  Name of the Student : V.G.D. Nayanaka
  Status: completed in 2012
  Role : Senior Supervisor

- Research Title: Site-Specific Nutrient Management for paddy soils on the basis of Potential Management Zones delineation through proximal soil sensing
  Name of the Student : R.A.A.S. Rathnayake
  Status: completed in 2019
  Role : Senior Supervisor

- Research Title: Determination of growth and yield responses of Paddy for applied N,P and K under different paddy growing environments of Sri Lanka.
  Name of the Student : H.P.G.T.N. Kulasinghe
  Status: Thesis submitted (2022)
  Role : Senior Supervisor

- Research Title: Spatial inventory of soil C and P stocks at sub-cathment scale.
  Name of the Student : Eranga Hemamali
  Status: On-going
  Role : Senior Supervisor

M.Sc. Research Supervision – Local

- Research Title: Investigation of Topographic - Soil Relationship to Support Spatial Prediction of Soil Properties
  Name of the Student : K.P.Jayakody
  Program : M.Sc. in GIS and remote sensing, Postgraduate Institute of Science, University of Peradeniya.
  Status: Completed (2016)
  Role : Senior Supervisor

- Research Title: Use of satellite imagery and digital elevation information to demarcate degradable land
  Name of the Student : Upeksha Wickramage
  Program : M.Sc. in GIS and remote sensing, Postgraduate Institute of Science, University of Peradeniya.
  Status: Completed (2016)
  Role : Senior Supervisor

- Research Title: Digital mapping of the soil fertility parameters in the Pelwatte sugar plantation in Moneragala district using secondary information
  Name of the Student : S. J. W. W. M. M. P. Weerasekera
  Program : M.Sc. in GIS and remote sensing, Postgraduate Institute of Science, University of Peradeniya.
  Status: Completed (2017)
  Role : Senior Supervisor

M.Sc. Research Supervision – International

- Research Title: Survey of soil variability and consequences for land use in coconut fields in Sri Lanka
  Name of the Student : Jeroen D'heer

Program : M.Sc. Bioscience Engineering : Land and Water management, Ghent University, Belgium.
Status: Completed (2013)
Role : Co-Supervisor

- Research Title: Survey of soil variability and consequences for land use in coconut fields in Sri Lanka
  Name of the Student : Heleen Lenoir
  Program : M.Sc. Bioscience Engineering : Land and Water management, Ghent University, Belgium.
  Status: Completed (2013)
  Role : Co-Supervisor

Publications in Refereed Journals and Book Chapters

H-index: 14

Peer reviewed journals

1. U 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.

2. 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.

3. 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.
4. **Vitharana. U.W.A.,** Mishra, U. and Mapa, R.B. 2019. National soil organic carbon estimates can improve global estimates. **Geoderma**. Vol 337, 55-64. 10.1016/j.geoderma.2018.09.005.

5. Rathnayaka R.A.A.S., **Vitharana U.W.A.** and Balasooriya B.L.W.K. 2018. Detailed mapping of soil texture of a paddy growing soil using multivariate geostatistical approaches. **Tropical Agricultural Research** Vol. 29 (4): 300 – 312.

6. Jayasekara, M.J.P.T.M., Kadupitiya, H.K. and **Vitharana, U.W.A.** 2018. Mapping of Soil Erosion Hazard Zones of Sri Lanka, **Tropical Agricultural Research** Vol. 29 (2): 135 – 146.

7. Rathnayake U.A.J., Weerasinghe, K.D.N., **Vitharana U.W.A.,** Chandika K.K.J. 2018. Potential of Eppawala Rock Phosphate as a Phosphorous Fertilizer for Rice Cultivation in Acid Sulphate soils in Matara district of Sri Lanka. **Tropical Agricultural Research** Vol. 29 (4): 293 – 299.

8. **Vitharana. U.W.A.,** Mishra, U., Jastrow, J. D., Matamala, R. and Fan, Z. 2017. Observational needs for estimating Alaskan soil carbonstocks under current and future climate**. J Geophys Res Biogeosci.** Vol 122, 2: 415-429.

9. Sanjeevani, U.K.P.S., Indraratne, S.P., Weerasooriya S.V.R., **Vitharana, U.W.A**. and Kumaragamage, D. 2017. Identifying the sources and contamination status of potentially toxic trace elements in agricultural soils. **Commun Soil Sci Plant Anal. Vol 48, No.8, 865-877.**

10. Rosemary, F., **Vitharana, U.W.A**. Indraratne, S. P. Weerasooriya, R. and Mishra, U. 2017. Exploring the Spatial Variability of Soil Properties in an Alfisol Soil Catena. **Catena 150: 53-61.**

11. Mishra, U., Drewniak, B., Jastrow, J.D., Matamala, R.M. and **Vitharana U.W.A.** 2017. Spatial representation of organic carbon and active-layer thickness of high latitude soils in CMIP5 earth system models. **Geoderma. 300: 55-63**.

12. Sanjeevani, U.K.P.S., Indraratne, S.P., Weerasooriya, S.V.R. and **Vitharana, U.W.A.** 2015. Baseline Concentrations of Some Trace Elements in Tropical Alfisols of Sri Lanka. **Geoderma Regional 4, 73-78.**

13. Perera, R.A.C.J., **Vitharana, U.W.A.** and Nawarathne, N.R.A. 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**.

14. Rathnayaka R.A.A.S. and **Vitharana. U. W. A.** 2016. Exploring the short-scale spatial variability of a Calcic Red Latosol using DUALEM-1S proximal soil sensor. **Trop. Agric. Res. 27 (3) 241-252**.

15. Sanjeevani, U.K.P.S, Indraratne, S.P., Weerasooriya S.V.R. and **Vitharana, U.W.A**. 2013. Baseline values of Cadmium and Zinc in Three Land Uses in a Selected Mapping Unit of the Dry-zone of Sri Lanka. **Trop. Agric. Res. 25(1): 84-95.**

16. Rosemary, F., **Vitharana, U.W.A.,** Indraratne, S.P. and Weerasooriya, R. (2014). Concentrations of trace metals in selected land use in a dry zone soil characterization in Sri Lanka. **Trop. Agric. Res.** 25(4):512-522.

17. Sanjeevani, U.K.P.S., Indraratne, S.P., Weerasooriya, S.V.R. and **Vitharana, U.W.A**. 2012. Characterization of an Alfisol in the Dry-zone of Sri Lanka to understand the retention mechanisms of pollutants. **Trop. Agric. Res.** 24(3): 258-269.

18. Nayanaka, V.G.D, **Vitharana U.W.A.,** and Mapa R.B. 2011. Spatial Variability of Soil Texture, Organic Carbon and Cation Exchance capacity of a Reddish Brown Latasolic soil in a Slopy landscape. **J. Soil Sci. Soc. Sri Lanka.** vol 23: 21-30.

19. 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. **Trop. Agric. Res.** Vol 22: 34-44.

20. 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. **Archaeol Prospect** 16 :91-102.

21. Cockx, L., Van Meirvenne, M., **Vitharana, U.W.A**., Verbeke, L.P.C., Simpson, D., Saey, T. and Van Coillie, F.M.B. 2009. Extracting topsoil information from EM38DD sensor data using a neural network approach. **Soil Sci Soc Am J**, 73 (6): 1-8.

22. Kardel, F., Wuyts, K., Babanezhad, M., **Vitharana, U.W.A.,** Wuytack, T., Potters, G., Samson, R. 2009. Assessing urban habitat quality based on specific leaf area and stomatal characteristics of Plantago lanceolata L. **Environ Pollut**, 158(3): 788-794.

23. **Vitharana, U.W.A.,** Saey, T., Cockx, L., Simpson, D., Vermeersch, H. and Van Meirvenne, M. 2008. Upgrading a 1/20,000 soil map with an apparent electrical conductivity survey. **Geoderma** 148:107-112.

24. **Vitharana, U.W.A.,** Van Meirvenne, M., Simpson, D., Cockx, L. and Hofman, G. 2008. Agronomic consequences of potential management zones delineated on the basis of EM38DD measurements. **Near Surf Geophys.** 6:289-296.

25. **Vitharana, U.W.A.,** Van Meirvenne, M., Simpson, D., Cockx, L. and De Baerdemaeker, J. 2008. Key soil and topographic properties to delineate potential management classes for precision agriculture in the European loess area. **Geoderma** 143:206-215.

26. Saey, T., Simpson, D. , **Vitharana, U.W.A.,** Vermeersch, H., Vermang, J. and Van Meirvenne, M. 2008. Reconstructing the paleotopography beneath the loess cover with the aid of an electromagnetic induction sensor. **Catena** 74:58-64.

27. Balasooriya, B.L.W.K., Samson, R., Mbikwa, F., **Vitharana, U.W.A.,** Boeckx, P. and Van Meirvenne, M. 2009. Biomonitoring of urban habitat quality by anatomical and chemical leaf characteristics. **Environ Exp Bot.** 65:386-394.

28. **Vitharana, U.W.A.,** Van Meirvenne, M., Cockx, L. and Bourgeois, J. 2006. Identifying potential management zones in a layered soil using multiple sources of ancillary information. **Soil Use Manage.** 22:405-413.

Chapters of Books

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1. Prof. Marc Van Meirvenne
Dean/Faculty of Bioscience Engineering
Ghent University, 653, Copure, Ghent 9000
Belgium
Email : Marc.VanMeirvenne@UGent.be

2. Prof. Darshani Kumaragamage
Dept. of Environmental Studies and Sciences
University of Winnipeg
515 Portage Ave.
Winnipeg, Manitoba
Canada R3B 2E9
Email : d.kumaragamage@uwinnipeg.ca

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