

Curriculum vitae

Nilusha Tharangani Perera

3/19, 1st Lane, Sripadha Mawatha, Rathnapura

Mobile: +94 715200071

nilusha@uwu.ac.lk

ORCID: 0000-0001-9867-2056



Profile

With a deep-rooted passion for Agricultural Resource Management and a comprehensive skill set in IT, I exhibit the qualities of adaptability and responsibility. My expertise lies in diverse areas such as Agricultural Engineering, Climatology, disaster risk reduction, Water and Soil, Statistics (Python, R, Minitab), Environmental Modeling (GIS & RS, ENVI-met, SWAT, SWAT-CUP), Crop Modelling (AquaCrop, APSIM), & Precision Agriculture.

To leverage my skill set to excel in my career and make meaningful contributions to the agricultural and environmental industry, I have a flexible approach towards work. I believe in imparting innovative solutions to complex challenges of agriculture and environment through the application of cutting-edge technologies. The integration of IT skills with Agricultural resource management can lead to sustainable agriculture and disaster risk reduction practices. Ultimately, my goal is to revolutionize the agricultural sector by bringing forth creative solutions to the modern-day challenges of food security and environmental sustainability.

Education

Academic Qualifications

- 2021 **M.Phil** (Reading) - Simulation of stream flow and hydrological response to land use-land cover changes in Kelani river basin, Sri Lanka.
University of Colombo, Sri Lanka

- 2013-2017 B.Sc. in Agricultural Resource Management and Technology
University of Ruhuna, Sri Lanka.
Specialized in Agricultural Engineering with 3.55 GPA (Second Class upper division).
- 2012 Ferguson High School – Ratnapura, Sri Lanka - G.C.E. A/L Examination (**Biology Stream**)
- 2007 Ferguson High School – Ratnapura, Sri Lanka - G.C.E. O/L Examination
7 Distinctions, 2 Very Good pass and Credit pass

Language Proficiency

- Diploma in English - E-soft, Ratnapura, Sri Lanka.
- Completed the Intensive English course - Faculty of Agriculture, University of Ruhuna, Sri Lanka.
- University Test of English Language (UTEL) - Overall band 5.
- University Certificate Test of Information Technology (UCTIT) - Overall level 75.

Academic career path

Current

18th Apr 2022 – Up to date

Lecturer (Probationary)

Department of Export Agriculture
Faculty of Animal Science and Export Agriculture
Uva Wellassa University of Sri Lanka
Passara Road, 90000 Badulla, Sri Lanka.

History

9th Oct 2018 – 18th Apr 2022

Temporary Instructor, Department of Environmental Technology, Faculty of Technology, University of Colombo, Sri Lanka.

2019 Jan – 2020 Dec

Research Assistant, Faculty of Technology, University of Colombo, Sri Lanka.

2018 Apr – Oct

Demonstrator: Faculty of Agriculture, University of Ruhuna, Sri Lanka.

2017 Apr – Jun

Management Trainee: Sustainable Energy Authority – Colombo, Sri Lanka.

2013 Mar – Dec

Management Trainee: People's Bank – Ratnapura, Sri Lanka.

Awards

- **Scholarship** of SAKURA Exchange Program in Science, administered by Japan Science and Technology Agency and University of Kobe Japan in **Kobe University Japan** (July – August **2017**).
- Honoured with **university colors** insignia in recognition of the excellent performance in Carrom in **2016**.
- **Best research content creator award** (1st Place) in KWSE/APNN International Young Woman Scientist (YWS) Camp & Smart Sister Workshop - **2020 – Korea**.
- **Best Presentation** (One minute pitch oration to promote the poster presentation and research discoveries) International Young Woman Scientist (YWS) Camp, Organized by Association of Korean Woman Scientists and Engineers (KWSE) in **2022**, Daejeon, **Korea**
- **Best Presentation (One minute pitch)** The International Conference of Women Scientists and Engineers conference on BT, IT, ET, and NT (BIEN 2021), Organized by Association of Korean Woman Scientists and Engineers (KWSE) in **2021**, Daejeon, **Korea**.

Research profile

Activity	Total
Research Communication – Publications	
Country / National Reports	3
Articles in Refereed Journals	6
Extended abstract	6
Textbooks / Book chapters with ISBN (Authored / Edited)	7
Publication-based Presentations in Research Conference (Sri Lanka)	37
Projects	
International	5
Sri Lanka	9

Country / National Reports

1. 7th Asia & Pacific nation network meeting & the international conference of women in stem in Mongolia (INWES-APNN-ICWSTEM) Country report presentation of Sri Lanka (2023).
2. 6th Asia Pacific Nation Network (APNN). Country report presentation of Sri Lanka (2022).
3. 5th Philippine Women Engineers Summit | INWES-APNN Conference & Meeting. Country report presentation of Sri Lanka (2021).

Articles in Refereed Journals

1. Prabath Priyankara, **Nilusha Perera**, Praneeth Piyumal Ruwanpathirana, Guttilla Yugantha Jayasinghe, Takehiro Morimoto (2022). Trends, Benefits, and Future Prospects of Unmanned Aerial Vehicles (UAV) in Precision Agriculture. Rajarata University Journal – Sri Lanka. Vol 7 Issue 1, ISSN: 2362-0080, June 2022
2. G.Y. Jayasinghe^{a,b*}, T.A.N.T. Perera^{b,c}, W.B.M.A.C. Bandara^b, K.B. Dassanayake^a, S.A.D.S.S. Maheepala^{b,d} (2022) A review of 'Soil Injection of Liquid Organic Wastes (LOWs) and Biosolids: Potentials and Challenges' International Journal of Environmental Research. © 2022 **Springer Nature** 10.1007/s40710-022-00587-7.
3. **T.A.N.T Perera**, Sonali D Herath, Ranjana U K Piyadasa, Liu Jianhui and Li Bing (2021). 'Spatial and physicochemical assessment of groundwater quality index in the urban coastal region of Sri Lanka' Journal of Environmental Science and Pollution Research (ESPR) 10.1007/s11356-021-16911-x (Volume 28, Issue 40).
4. **Perera T.A.N.T**, Jayasinghe G.Y, Halwatura R.U, Rupasinghe H.T (2021). 'Modelling of vertical greenery systems with selected tropical plants in urban context to appraise plant thermal performance'. The International Journal of Ecological Indicators. © 2021 **Elsevier** Ltd. <https://doi.org/10.1016/j.ecolind.2021.107816> (Volume 128, 107816, ISSN 1470-160X).
5. **Perera T.A.N.T**, Nayanajith T.M.D, Premasiri H.D.S, Jayasinghe G.Y (2021) 'Identification of Thermal Hot Spots in Urban Areas through establishing heat index in Support of Mitigation Plans to Counteract Urban Heat Island (UHI): A case study in Colombo urban area – Sri Lanka' Journal of Modeling Earth Systems and Environment. © 2021 **Springer Nature**. DOI: <https://doi.org/10.1007/s40808-021-01091-x> (Volume 6, Issue 4).
6. Weerasooriya R.R, Liyanage L.P.K, Rathnapriya R.H.K, Bandara W.B.M.A.C, **Perera T.A.N.T**, Gunaratne M.H.J.P, Jayasinghe G.Y. (2021). 'Industrial Water Conservation by Water Footprint and SDGs: A Review. Journal of Environment, Development and Sustainability. © 2021 **Springer Nature** DOI: <https://doi.org/10.1007/s10668-020-01184-0> (Volume 23, Issue 1).

Extended abstracts




1. **T.A.N.T Perera**, Ranjana U.K Piyadasa, M.H.J.P. Gunarathne, D. Nagesh Kumar (2022) Hydrological modelling (Soil Water Analysis Tool) in Water-related disasters and climate crisis: A review. "Youth" in the forefront: before and after 9th World Water Forum. Online Youth Water Congress: "Emerging water challenges since COVID-19" 6-8 April 2022. ISBN: 978-960-243-729-2. Publisher: UNESCO Centre on Integrated and Multidisciplinary Water Resources Management (CIMWRM).


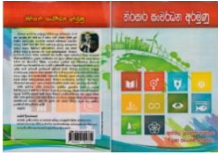
2. Herath HMBU, Herath SRDG, Weerasinghe DART, Imalsha RAG, Ruwanthika HKP, Rupasingha KHASV, Hettiarachchi BM, Hima HF, **Perera TANT**, Piyathilaka MAPC **(2022)** Surgical face masks as an emergent pollutant in the environment during COVID – 19 pandemics; A review “Youth” in the forefront: before and after 9th World Water Forum. Online Youth Water Congress: “Emerging water challenges since COVID-19” 6-8 April 2022. ISBN: 978-960-243-729-2. Publisher: UNESCO Centre on Integrated and Multidisciplinary Water Resources Management (CIMWRM).
3. **Perera T.A.N.T**, Halwatura R.U, Jayasinghe G.Y, Rupasinghe H.T **(2021)** “Modelling building envelop with vertical green living walls as an urban heat island (UHI) mitigation strategy”. 12th International Conference on Structural Engineering and Construction Management (ICSECM 2021).
4. Jayasekara HNL, Wickramasingha SR, Kahandagamage SU, Sathsarani MRL, Anuja A, **Perera TANT**, Piyathilaka MAPC **(2021)**. A Review on Investigation of Microplastics (MP) Pollution in Water & Future Perspectives. 7th International research symposium on “Human Empowerment through Research Excellence”. Vavuniya Campus of the University of Jaffna.
5. Yathurshiga Vigneswaran, **Perera TANT**, Saravanan S, Jayasinghe GY **(2021)**. “Influence of Reverse Osmosis reject water on soil quality in disposal sites of Vavuniya, Sri Lanka”. 7th International research symposium on “Human Empowerment through Research Excellence”. Vavuniya Campus of the University of Jaffna.
6. Rupasinghe H.T, **Perera T.A.N.T**, Galagoda R.U, Halwatura R.U **(2019)**. ‘Implementation of Vertical Greening as a Double Skin Envelope: A Sustainable Approach in Tropical Climates’ iiSBE Forum of Young Researchers in Sustainable Building in **Prague. July 2 - 4, 2019, Prague.**

Book Chapter

1. **Perera T.A.N.T**, Halwatura R.U, Jayasinghe G.Y, Rupasinghe H.T **(2022)** 12th International Conference on Structural Engineering and Construction Management. Modeling Building Envelop with Vertical Green Living Walls as an Urban Heat Island (UHI) Mitigation Strategy. 10.1007/978-981-19-2886-4. Volo 266, Chap 46

Books

	<p>Perera T.A.N.T, Halwatura R.U, Jayasinghe G.Y. (2018) ‘Tropical plant collection for vertical green walls’ Lambert Academic Publishing - European Union. ISBN- 978-613-9-91059-5.</p>
	<p>Perera T.A.N.T, Jayasinghe G.Y (2020) ‘Drip Irrigation’ (Sinhala Medium) ISBN- 978-624-97153-0-1.</p>
	<p>Perera T.A.N.T, Jayasinghe G.Y, Ruwanpathirana P.P (2020) ‘Concepts of Basic Soil Science’ (Sinhala Medium) - ISBN- 978-624-97153-2-5</p>

	<p>Perera T.A.N.T, Jayasinghe G.Y, Gimhani Chandima (2020) 'Undergraduate entrepreneurship' (Sinhala Medium) - ISBN- 978-624-97153-1-8.</p>
	<p>Perera T.A.N.T, Jayasinghe G.Y (2021) 'Sustainable Development Goals' (Sinhala Medium) ISBN- 978-624-97153-3-2.</p>

Publication-based Presentations in International Research Conferences

1. K.M.C. Tharupath, **T.A.N.T. Perera**, G.Y. Jayasinghe (2023). Potential of Machine Learning for Climate Change Risk Assessment. International Symposium on Tackling Climate Change as an Underlying Disaster Risk Driver. 27 & 28 June 2023, Charles sikes building (CSG/17), University of Huddersfield, UK
2. **T.A.N.T Perera**, Ranjana U.K Piyadasa, M.H.J.P. Gunarathne, D. Nagesh Kumar (2023). Simulation of Hydrological Parameters using the SWAT Model to Assess the Water Balance in Kelaniya River Basin, Sri Lanka. World Congress on Soil and Water Sciences (WCSWS-23), 11th Apr 2023, Melbourne, Australia.
3. H.M. Munasinghe, E.G.T. Dasunika, W.W.L. Subhodani, M. Janotheepan, E.M.U.W.J.B. Ekanayake, **T.A.N.T. Perera** (2023). Development of Crop Yield Prediction Model Using Machine Learning Algorithms: A Review. International Conference on Building Resilience in Tropical Agroecosystems (BRITAE 2023), March 15th & 16th 2023. Galle Face Hotel, Colombo, Sri Lanka.
4. Indunil Pradeep Dissanayake, **Perera TANT**, Jayasinghe GY (2023). Assessment of Groundwater Vulnerability in Sri Lanka: A Systematic Literature Review. International Conference on Building Resilience in Tropical Agroecosystems (BRITAE 2023). March 15th & 16th 2023. Galle Face Hotel, Colombo, Sri Lanka.
5. **T.A.N.T Perera**, S.H.K Semasinghe, Ranjana UK Piyadasa (2023). Urban flood assessments in low lying areas: case study in Kelani River Basin, Sri Lanka. International Conference on Building Resilience in Tropical Agroecosystems (BRITAE 2023). March 15th & 16th 2023. Galle Face Hotel, Colombo, Sri Lanka.
6. **T.A.N.T Perera**, Ranjana U.K Piyadasa, M.H.J.P. Gunarathne, D. Nagesh Kumar (2023). Modeling hydrological parameters using Soil and Water Assessment Tool (SWAT) in the Kelaniya River Basin in Sri Lanka. International Conference on Building Resilience in Tropical Agroecosystems (BRITAE 2023). March 15th & 16th 2023. Galle Face Hotel, Colombo, Sri Lanka.

7. Pasan Buddhima Ranasinghe, **Perera TANT**, Jayasinghe GY (2023). A Systematic Review of SWAT Model Applications, Performance, Challenges, and Future Need for Simulation in Tropical Watersheds in Asian Context. International Conference on Building Resilience in Tropical Agroecosystems (BRITAE 2023). March 15th & 16th 2023. Galle Face Hotel, Colombo, Sri Lanka.
8. Indunil Pradeep Dissanayake, **Perera TANT**, Jayasinghe GY (2022). Physicochemical Characterization and GIS based Assessment of Groundwater Quality in Kirma-Ara River Basin, Southern Province, Sri Lanka. Undergraduate Research Symposium on Agricultural Engineering & Environmental Technology- 2022. Department Of Agriculture Engineering, Faculty of Agriculture, University of Ruhuna, Sri Lanka. Volume:3.
9. **T.A.N.T Perera**, Sonali D Herath, Ranjana U.K Piyadasa, Liu Jianhui and Li Bing (2022). Coastal Resources management and Beach protection in west coast of Sri Lanka. Symposium on Beach Protection and Restoration around the South China Sea, 2022. Xiamen, China
10. S.H.L. Sandamali, **TANT Perera**, Ranjana U.K Piyadasa (2022). Reviewing the Sendai Framework: Gender and the role of Women in Disaster Risk Reduction. KWSE/APNN International Young Woman Scientist Camp & Smart Sister Workshop Aug 24-26, 2022 / Online & In-person Hybrid **Daejeon, Korea**.
11. S.U. Kahandagamage, **TANT Perera**, Ranjana U.K Piyadasa (2022). Municipal solid waste management strategies in western province, Sri Lanka; a Review. KWSE/APNN International Young Woman Scientist Camp & Smart Sister Workshop Aug 24-26, 2022 / Online & In-person Hybrid **Daejeon, Korea**.
12. **TANT Perera**, WBMAC Bandara, KB Dassanayake, SADSS Maheepala, GY. Jayasinghe (2022). Soil injection of liquid organic wastes (LOWs): Challenges and Future Perspectives. Integrating education with consumer behaviour relevant to energy efficiency and climate change at the Universities of Russia, Sri Lanka and Bangladesh (BECK) 20th - 22nd April 2022 – Radisson Blu Dhaka Water Garden, **Bangladesh**.
13. M.S.F Sadheeka Roashan, D.H.Y.A Ranasinghe, M.S.F Farzeen, H.M.M.S.D Herath, **T.A.N.T Perera** and Ranjana U.K Piyadasa (2021). Effective management of household energy consumption during the COVID-19 pandemic. The International Conference of Women Scientists and Engineers conference on BT, IT, ET, and NT (BIEN 2021) Organized by The Association of Korean Woman Scientists and Engineers (KWSE). **Daejeon, Korea**.
14. Maheepala S.A.D.S.S, **Perera T.A.N.T**, Jayasinghe, G.Y, (2019). 'Influence of agro-chemical usage on water pollution in Nilvala river – a case study in Thihagoda – Sri Lanka' 6th International Conference on Agriculture (AGRICO) "Protective Farming and Sustainable Management" 22nd – 23rd August 2019 in **Bangkok, Thailand**.

15. I.D.P. Yawasha De Silva, D.H.Y.A. Ranasinghe, H.M.M.S.D. Herath, **T.A.N.T Perera**, R.Sawmiya and Ranjana U.K. Piyadasa (2021). Assessment of women's participation and perception in home gardening during the COVID-19 pandemics, Sri Lanka. The International Conference of Women Scientists and Engineers conference on BT, IT, ET, and NT (BIEN 2021) Organized by The Association of Korean Woman Scientists and Engineers (KWSE). **Daejeon, Korea**.
16. **T.A.N.T Perera**, Sonali Herath, Ranjana Piyadasa, Liu Jianhui, Li Bing (2020). Assessment of land suitability potential for sustainable agriculture in the north western region of Sri Lanka: Towards women centered peri - urban agriculture. KWSE/APNN International Young Woman Scientist Camp & Smart Sister Workshop Nov 4-6, Online & In-person Hybrid, Lotte City Hotel, **Daejeon, Korea**.
17. D.P. Lakmini, **T.A.N.T. Perera**, R.P.W.N. Karunasiri, V.P.N.A. Premasiri, H.M.M.S.D. Herath, R.U.K. Piyadasa (2021) 'Assess the human perception on Urban Home Gardening as a sustainable approach for precision farming technology'. Annual Research Symposium - 2021 of Faculty of Technology, University of Colombo.
18. B.L.N. Nadeeshani, V.P.N.A. Premasiri, **T.A.N.T. Perera**, R.P.W.N. Karunasiri, D.P. Lakmini, H.M.M.S.D. Herath, R.U.K. Piyadasa, C.M. Navarathne (2021) 'Studying the effect of spatiotemporal land use/land cover (LULC) dynamics on inundation occurrence in Bolgoda River Basin, Sri Lanka'. Annual Research Symposium - 2021 of Faculty of Technology, University of Colombo.
19. J.A.C.J. Thilakarathna, R.P.W.N. Karunasiri, D.P. Lakmini, **T.A.N.T. Perera**, V.P.N.A. Premasiri, H.M.M.S.D. Herath, R.U.K. Piyadasa, G.Y. Jayasinghe (2021) 'A Remote Sensing approach for assessing agricultural land-use land change (LULC) using Normalized Difference Vegetation Index (NDVI) in Western coastal region, Sri Lanka'. Annual Research Symposium - 2021 of Faculty of Technology, University of Colombo.
20. Madumali AI, Sandamali SHL, Ramshana SMF, Sanjeevani PPA, **Perera TANT**, Ranjana U.K Piyadasa (2021) Appraising surface water pollution indicators during the COVID 19 lockdown period in Sri Lanka. 7th International conference on Dry zone agriculture (ICDA) organized by Faculty of Agriculture, University of Jaffna.
21. Madumali AI, Sandamali SHL, Ramshana SMF, Sanjeevani PPA, **Perera TANT**, Ranjana U.K Piyadasa (2021) 'Impact of COVID-19 pandemic on surface water contamination due to disposal of Plastic Protective Equipment and discharge of wastewater'. Annual Research Symposium - 2021 of Faculty of Technology, University of Colombo.
22. P.G.B. Priyadarshana, **T.A.N.T Perera**, W.M.C.J. Wijekoon, D.G.P.G.C. Senevirathna, M.M.D. Surath Perera, G.Y. Jayasinghe (2020). 'Mapping soil pH and electrical conductivity of sugarcane land (*Saccharum officinarum*) using ArcGIS in Gal-Oya Plantation, Ampara, Sri Lanka.' IRC on 'Resilient Agriculture to cope with unforeseen crises' organized by Faculty of Agriculture, University of Jaffna.

23. **T.A.N.T perera**, Sonali D Herath, Ranjana U K Piyadasa, Liu Jianhui, Li Bing (2020) 'Investigating the impact of coastal erosion on the domestic water quality using water quality index (WQI) – a case study of western coastal (region), Waikkala, Sri Lanka'. Annual Research Symposium-2020 of Faculty of Technology, University of Colombo.
24. **Perera T.A.N.T**, Madhusanka P.B.H, Piyasena P, Jayasinghe G.Y (2020). 'Implementation of low cost, automated, mobile monitoring module by means of IoT for container gardening in urban areas. International research symposium on 'Sustainable Business Transition through Information and Knowledge Dissemination' 29-30/07/2020 organized by Uwa Wellassa University.
25. **Perera T.A.N.T**, Nayanajith T.M.D, Premasiri H.D.S, Jayasinghe G.Y (2020). 'Identification of Thermal Hot Spots in Urban Areas through establishing heat index in Support of Mitigation Plans to Counteract Urban Heat Island (UHI): A case study in Colombo urban area – Sri Lanka.' International research symposium on 'Sustainable Business Transition through Information and Knowledge Dissemination' 29-30/07/2020 organized by Uwa Wellassa University.
26. **Perera T.A.N.T**, Maheepala S.A.D.S.S, Jayasinghe, G.Y, (2019) "Enhance food security and conserve environment through organic urban farming in Sri Lanka: A Review" International Conference on Agriculture, Food Security and Safety 7th-8th November 2019.
27. H.M.M.S.D Herath, R.U.K. Piyadasa, **T.A.N.T. Perera**, A.G.C.M.N. Nawarathna, P.M. Opallage (2019). 'Future of urban density dissemination and its effects on the spatial distribution of wetlands: A Remote Sensing & GIS based Evaluation on Kalu Oya & Mudun Ela Basin, Sri Lanka' 21st Annual Scientific Sessions & AGM of the population association of Sri Lanka. 24/03/2019.
28. **Perera T.A.N.T**, Rathnayaka R.M.H.R, Perera M.M.D.S, Wijekoon W.M.C.J, Jayasinghe G.Y (2019), 'Development of a soil moisture monitoring and recording system for Saccharum officinarum (Sugarcane)' International Symposium on 'Water & Air Pollution - Recent Advances in Research' Co-organized by Post Graduate Institute of Science (PGIS), University of Peradeniya, Sri Lanka and National Chung Hsing University (NCHU), Taiwan.
29. Madushanka P.L.A, **Perera T.A.N.T**, Perera M.M.D.S, Wijekoon W.M.C.J, Sakai Kazuhitho and Jayasinghe G.Y. (2019). 'Unmanned aerial vehicle (UAV) based images for the Assessment of Sugarcane Vegetation and Growth Parameters' Conference on Sri Lanka-Japan Collaborative Research (SLJCR) on 'addressing global issues through collaboration and partnership' – 2019 Organized by University of Peradeniya.
30. **Perera T.A.N.T**, Priyankara A.C.P, Jayasinghe G.Y (2019). 'Unmanned Aerial Vehicles in smart agriculture; Trends, benefits and future perspectives' International Research conference on 'Sustainable Business Transition through Technology and Innovation', 06-08/02/2019 organized by Uwa Wellassa University.

31. **Perera T.A.N.T** and Jayasinghe G.Y (2018). 'Improvement of vertical living wall systems; present status, challenges and future perspectives' 9th International conference on 'Sustainable Built Environment' 13/14/15, 2018 at Earl's Regency Hotel, Kandy organized by University of Peradeniya, Sri Lanka.
32. **Perera T.A.N.T**, Bandara R.M.M.H, Jayarathna R.N.R, Jayasinghe G.Y (2018). 'Assessment of spatial and temporal variations in ambient concentration of hydrocarbon in Hambantota district' International research conference on 'Multifaceted Technology for Dry Zone Agriculture' 2018 organized by University of Jaffna.
33. **Perera T.A.N.T**, Chathuranga A.G.L, De Silva P.M.C.S and Jayasinghe G.Y (2018). 'Assessment of physico-chemical parameters of drinking water quality in selected DS divisions-Hambanthota district' International research Conference On 'Securing Professional Excellence through Collaboration' 2018 organized by Kothalawala Defense University (KDU).
34. **Perera T.A.N.T**, Subodhini G.V.L, Jayarathne R.N.R, Jayasinghe G.Y (2018). 'Characterization of indoor and outdoor air quality in terms of non-methane hydrocarbons of Sri Lanka' International research Conference On 'Securing Professional Excellence through Collaboration' 2018 organized by Kothalawala Defense University (KDU).
35. **Perera T.A.N.T** and Jayasinghe G.Y (2018). 'Green roofs and green walls for urban farming; Trends, benefits and Future perspectives' International research symposium on 'Extending frontiers towards sustainable development goals' 24-25/08/2018 organized by Wayamba University.
36. **Perera T.A.N.T**, Rupasinghe H.T, Halwatura R.U (2018). "Towards greener cities; investigating the potentials of vertical greening in tropics as a design approach to create sustainable urban environments, in proceedings of the 6th International Conference on 'Cities, People and Places'-ICPP-2018 October 05th -06th, 2018, Colombo, Sri Lanka.
37. **Perera T.A.N.T**, Halwatura R.U, Jayasinghe G.Y, Rupasinghe H.T (2018). 'Assessment of the Plant Growth Performances of Vertical Green Walls Developed with Different Plant Types in a Tropical Climate' International research symposium on 'Emerging Technologies for an innovative Green Economy' 02-03/02/2018 organized by Uwa Wellassa University.

Research / Projects

1. The National Environmental Action Plan (NEAP), Data base development in Collaboration with Ministry of Environment, Central Environmental Authority, University of Sri Jayewardenepura, Sri Lanka, University of Colombo (2021).

2. Research Assistant for the Biological and Ecological study for Ruwanpura Expressway project conducted by the Sustainable Energy Authority Sri Lanka and the University of Colombo (01.12.2021 to 08.04.2022).
3. Survey on Turbidity of Menik river basin in Collaboration with Central Environmental Authority, and University of Ruhuna (2021).
4. Country wide survey on home gardening during COVID - 19 pandemic in Sri Lanka with the collaboration of University of Colombo (2020-2021).
5. Research Assistant and Training Material Translator for the Project of Training Needs Assessment for Irrigation and Water Management (Lot 1), Sri Lanka conducted by the United Nations Development Program and the University of Colombo (01.01.2019 to 30.09.2020).
6. Research Assistant and Training Material Translator for the Project of Training Needs Assessment for Climate/ Weather Information and Climate Smart Agriculture (Lot 2), Sri Lanka conducted by the United Nations Development Program and the University of Colombo (01.01.2019 to 30.09.2020).
7. Research Assistant for the Project of Extra Awareness Program to Increase the awareness of local government officers and other key stakeholders on tools and guidelines for managing watershed areas with a special focus on cultivated areas with tea and other crops LKA/16/02 RBSA. Conducted by the International Labor Organization and the University of Colombo (01.12.2019 to 30.12.2019).
8. Research Assistant for the Project to Increase the awareness of local government officers and other key stakeholders on tools and guidelines for managing watershed areas with a special focus on cultivated areas with tea and other crops. Conducted by the International Labor Organization and the University of Colombo (01.09.2019 to 01.12.2019).
9. Research Assistant for the Strategic Environmental Assessment on the Project for Storm Water Drainage Plan in Selected Areas in Colombo Metropolitan Area, Sri Lanka conducted by the Japan International Cooperation Agency and the University of Colombo (01.08.2019 to 30.12.2020).
10. Utilization of UAV for sugarcane and maize crops in Ampara District funded by CIC and the University of Ruhuna (2018 – 2020).
11. Country wide survey on Poultry litter as a bio fertilizer with the collaboration of Finland Company Endeavor Energy Corporation and the University of Ruhuna (2018 – 2019).
12. A Remote Sensing & GIS based Evaluation on Kalu Oya & Mudun Ela Basin (Wetlands), Sri Lanka. Natural resources ministry China, University of Colombo (2019-2020).
13. Final Year Research dissertation on 'Assessment of the plant growth performances of vertical green walls developed with different plant types in a tropical climate' (May - Dec 2017).

14. Social science survey on 'Consumer constraints on popularization of fresh milk-A case study in Southern province - Sri Lanka (Sept - Dec 2016).
15. Assessment of the Post-harvest losses of Vegetables (*Phaseolus vulgaris*) from Field to local Market (Bandarawela-Matara) Sri Lanka (Mar – 2015).

Teaching Practice

Uva Wellassa University of Sri Lanka

- EAG 344-1 Applications of GIS and Remote Sensing (T+P)
- EAG 344-1, PLT 342-1, EA 343-1 Applications of GIS and Remote Sensing (T+P)
- EAG 342-2 GIS and Remote Sensing (T+P)
- EAG 442-2 Precision Agriculture (T+P)
- ANS 106-2 Introduction to Soil Science (T+P)
- EAG 453-2 Crop modeling and Simulation (T+P)
- PLT 371-2, TEA 371-2 Land Reclamation and Soil Conservation Techniques (T+P)
- AQT 132-1 Hydrometeorology (T)

University of Colombo Sri Lanka

- ET 1001 Hydrology (T)
- ET 1002 Technology and Environment (T)
- ET 1008 Chemicals in the environment (T+P)
- ET 2004 Analytical Techniques for studying water samples (P)
- ET 1006 Soil science (T+P)
- ET 2019 Soil Pollution, Erosion and Analytical Techniques (T+P)
- ET 1004 Biology for Environmental Technology (P)
- ET 2002 Water Pollution (P)
- ET 2014 Applied Groundwater Management (T+P)

University of Ruhuna

- EN 4103 Computer Aided Drawing and Computer Programming (P)
- CC 4103 Rapid Application Development (P)
- CC 1101 Information and Communication Technology in Agriculture (P)
- CC 3101 Database Management Systems (P)
- CC 1002 Computer Awareness (P)
- EN 2201 GIS and Remote sensing (P)

Institutional Development

1. Organizing Committee – International Research Conference of Uva Wellassa University Aug 17-18, 2023
2. Organizing Committee – Academic Sessions 2022 organized by Department of Export Agriculture.

3. Organizing Committee – Second Annual 3MT Competition 2022 – Faculty of Animal Science and Export Agriculture.
4. Course content/capsule development of new specialization in Agriculture Resource Engineering and BSc. (Hons) in Agricultural Enterprise Development and Management program.

Membership in Professional Organizations / Institutions

- **Assistant Secretary of Students Support Society** Department of Export Agriculture, Faculty of Animal Science and Export Agriculture, Uva Wellassa University of Sri Lanka (2023 to date).
- **Secretary** of Curriculum Revision committee Department of Export Agriculture, Faculty of Animal Science and Export Agriculture, Uva Wellassa University of Sri Lanka (2022 to date).
- **Academic sub-warden** of Uva Wellassa University of Sri Lanka (2023).
- **Secretary** of Women in Science & Engineering association Sri Lanka (WiSE) – (2021-2022).
- **Member** of UNESCO Groundwater youth Network (GWYN) – 2022
- **Member** of SAKURA Science Club (Japan).
- **Board Member** of International Network of Women Engineers and Scientists - Asia Pacific Nation Network (INWES-APNN) – 2021-2022
- **Committee Member** of Women in Science & Engineering association Sri Lanka (WiSE) – (2020-2021).
- **Member** of Environmental Society, Faculty of Technology, University of Colombo (2018-2022)
- **Member** of Young Scientist Forum, National Science and Technology Commission (2022).
- **Captain** of the University Carrom team - University of Ruhuna (2016).
- **Member** of Faculty Sports Council (2014, 2017).
- **Academic sub-warden** of Faculty of Agriculture, University of Ruhuna (2018-2019).

Editor/Reviewer assignments (ORCID - 0000-0001- 9867-2056).

1. Reviewer for Journal of Wireless personal communications, Springer
2. Reviewer for Journal of Environmental Science and Pollution Research, Springer
3. Reviewer in the proceedings of the International Research Conference (IRCUWU 2023) of Uva Wellassa University

Thesis Co-supervision

2023

Uva Wellassa University of Sri Lanka

1. Effect of different zinc concentration levels on latex film properties – Ms. W.K.Amarasekara
2. Effect of different rate of dolomite application on selected soil physical and chemical properties in Cinnamon (*Cinnamomum zeylanicum* blume) growing soil - Ms. C.P Rupasinghe

University of Ruhuna, Sri Lanka

3. Rice yield Estimation and validation Agricultural Production System Simulator (APSIM) in Sri Lanka – Mr. J.C.S.Rajapaksha
4. Performance Evaluation of AquaCrop Model and Machine Learning algorithms in predicting yield of sugarcane in dry zone, Sri Lanka – Ms. A.H. Weerakoon
5. Analysis of the Impact of Urban parks towards mitigation of Heat Island Effect in Sri Lanka – Ms. W.G.K.D.Jayalath
6. Designing A Web-based Crop Management System with the Aim of Optimizing Tomato Yield – Mr. K.A.R. Fernando
7. Study of the effect of green quantity and structure on air quality in colombo residential district by Envi-met modelling - Ms. S.M.T.P Suriyapperuma

University of Colombo, Sri Lanka

8. Modeling of sediment yield in Kelani River watershed using SWAT, A case study Sri Lanka – Mr. M.G.S.H. Dharmasiri
9. Assessment of dug Well Water Quality of Welimada In highly Intensive agricultural areas, Sri Lanka – Mr. R.M.L.S Rajapaksha

2022

Uva Wellassa University of Sri Lanka

10. A Hybrid Approach for Crop yield prediction using Machine Learning Algorithms - Ms Hashini Nirasha Munasinghe, Ms. E.G.T. Dasunika, Ms. W.W.L. Subhodani

University of Ruhuna, Sri Lanka

11. Assessment of stream flow and non-point source pollutant loading in the Kelani River - Soil Water Assessment Tool – Ms. W.D. Madhuwanthi
12. Assessment of Turbidity characteristics and water quality status of Manik Ganga in Katharagama Divisional Secretariat – Ms. H.M.L.N Herath
13. Geochemical Characterization and GIS based Assessment of Groundwater Quality in Nilwala River basin, Southern Province, Sri Lanka – Mr Indunil Dissanayake
14. Hydrological Modeling for Runoff and Erosion Estimation in Kalani river basin Using ArcSWAT – Mr Pasan Ranasinghe

Skills and Activities

ICT Skills

- AquaCrop, APSIM, ML Crop Modelling Software (Research and applications).
- GIS & Remote sensing (Research and applications).
- ENVI-met (*Investigating and quantifying the effects of architecture and urban planning on the microclimate of outdoor spaces with ENVI-met simulation software*).
- SWAT-CUP (*Calibration and Validation of watersheds process uncertainties*).

- ArcSWAT (*Assessing soil erosion prevention and control, non-point source pollution control and regional management in watersheds*).
- Adobe Photoshop, AUTOCAD & Solid works.
- Programming – Python, Microsoft Visual Studio-2010 / Database Management System (SQL).
R, R studio
- Computer Hardware Management.

Extracurricular Activities

Sports

- Sri Lankan University Games - **Colors** – Carrom (2016)
- Inter-University Carrom tournaments – Runner up (2016, 2017)
- Inter-Faculty Netball, Carrom tournaments – Champions, 1st,2nd Runner up (2014-2016)
- Inter batches Netball, Volleyball, Carrom – Champions (2015)
- School level - Netball, Volleyball, Carrom, Athletics – Achievements

Aesthetic Fields and other

- Achievements from Dahampasal daham danuma zonal competition.
- Achievements from School Drama competition.
- Dancing competitions and programs.

Workshop & Programs

- **Attended** workshop on ‘Journal Selection Process and Role of UWU Staff in Upgrading Webometrics Ranking’ conducted by SDC for the UWU, Sri Lanka.
- **Successfully completed** the Professional Development Program on Councelling and Mentoring for Academic Staff organized by the Uva Wellassa University under the Accelerating Higher Education Expansion and Development (AHEAD) project, Sri Lanka (2022).
- **Successfully completed** training of trainers’ program on “**Climate and weather forecasts and water management / Agricultural advisories**” organized by the University of Colombo under the Climate resilient integrated water management project (CRIWMP) Ministry of Irrigation, Sri Lanka (2021).
- **Successfully completed** training of trainers’ program on “**Cascade Water Resource Development and Management Planning**” organized by the University of Colombo under the Climate resilient integrated water management project (CRIWMP) Ministry of Irrigation, Sri Lanka (2021).

- **Successfully completed** training of trainers' program on "**Water Management for minor irrigation Sector (on-farm and off-farm water management)**" organized by the University of Colombo under the Climate resilient integrated water management project (CRIWMP) Ministry of Irrigation, Sri Lanka (2021).
- **Attended** 6th International Conference on Agriculture (AGRICO) "Protective Farming and Sustainable Management" (August 2019) - **Bangkok, Thailand.**
- **Attended** workshop on 'Safe & responsible use of crop protection products' conducted by CropLife Sri Lanka.
- **Attended** workshop on 'GIS and Remote sensing' conducted by Amerasian (Pvt) Ltd. Sri Lanka.
- **Successfully completed** Tractor driving & maintenance course conducted by Faculty of Agriculture, University of Ruhuna.
- **Successfully completed** a three weeks training program on 'Developing leadership qualities & positive thinking'.

Online Courses and Trainings

- **Attended** the 60min webinar: AI tools for flood modelling. **conducted by Australian Water School July 2023**
- **Successfully completed** "Introduction to Remote Sensing for Catchment and Water Resource Management" a course of study offered by United Nations Educational, Scientific and Cultural Organization (UNESCO)-2023
- **Attended** the new skills-building and grants programme - **Harnessing Youth Action for Social Cohesion in Sri Lanka conducted by UNESCO-2022**
- **Attended** 2020 KWSE/APNN International Young Woman Scientist (YWS) Camp & Smart Sister Workshop (November 2020) - Daejeon, **Korea.**
- **Successfully completed** How to Publish with Oxford Journals Certification series conducted by Oxford University.

Non-Related Referees

Prof. G.Y Jayasinghe
Head/ Dept. of Agric: Engineering
Faculty of Agriculture
University of Ruhuna
+94715484578
victorlion3000@gmail.com

Prof. Ranjana U.K. Piyadasa
Dean/Faculty of Technology
University of Colombo
+94 71 4470707
ranjana@et.cmb.ac.lk

Prof. Saman Seneweera
Professor in Plant Physiology
School of Agriculture, Food and Ecosystem
Sciences
The University of Melbourne
+61 3 5362 2164
samans@unimelb.edu.au

Prof. Saman K Herath
Dean/ Faculty of Animal Science and Export
Agriculture
Uva Wellassa University of Sri Lanka.
+94 55 2226671
samanherath@uwu.ac.lk