

## CURRICULUM VITAE

### Lasantha Herath



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## PERSONAL DETAILS

- Name in Full: Herath Mudiyanse Lage Lasantha Indika Herath
- Date of Birth: 1981.06.27
- Civil Status; Married
- Gender: Male
- Nationality: Sri Lankan

## ACADEMIC QUALIFICATIONS

- **Ph.D. Soil Science**, Dissertation Title: Linking Soil Physics with High Throughput Sequencing to Understand Soil Inner Space Ecology. Aarhus University, Denmark (2017).
- **M.Sc. Plant Protection Technology**, Post Graduate Institute of Agriculture, University of Peradeniya, Sri Lanka (2010).
- **B.Sc. Agriculture Special Degree**, University of Peradeniya, Sri Lanka.  
Majoring module: **Agricultural Biology (2008)**.

## PROFESSIONAL EXPERIENCES

- Four years of research experiences as a **Ph.D. fellow** at **Aarhus University, Denmark**, attached to the project “**Linking Soil Physics with High Throughput Sequencing to Understand Soil Inner Space Ecology.**”
- Three years of working experiences as a **Research Assistant** at **National Institute of Fundamental Studies (NIFS)**, Sri Lanka, attached to the project “**Biofilmed Biofertilizer for Development of Tea.**”
- Two years of working experiences as a **Research Assistant** at **Industrial Technology Institute (ITI)**, Sri Lanka, attached to the project “**Biological control of vegetable pest by *Bacillus thuringiensis***”

## TRAINING AND SKILLS

- Training on academic English in Aarhus University, Denmark
- Training on strategies and techniques for analyzing microbial population structures in Marin Biological Laboratory (MBL), Woods Hole, USA
- Training on multivariate data analysis in Aalborg University Denmark
- Training on bioinformatics to microbiology in Copenhagen University Denmark
- Training on special statistic and data processing in Roskilde University Denmark
- Good command on using R- Statistical software and PC-ORD to analyse ecological communities.
- Training on identification of bacterial strains by molecular characterization of 16S ribosomal RNA sequences and DNA fingerprinting, purification of PCR products for sequencing, sequence analysis, RAPD characterization of bacterial strains (Rapid Amplification of Polymorphic DNA), Enzyme-linked Immunosorbent Assay (ELISA) technique, real-time PCR (q-PCR) technique, Denaturing Gradient Gel Electrophoresis (DGGE) technique at Faculty of Agriculture and Environment, University of Sydney, Australia.
- Training on equipment of Automated Bioreactor, Gas Chromatography (GC), High Performances Liquid Chromatography (HPLC), Freeze Dryer, and Vacuum Oven at ISO certified laboratory of Herbal Technology Section (HTS), Industrial Technology Institute (ITI), Sri Lanka.
- Training on techniques of microbiology and mycology at HTS, ITI, Sri Lanka.
- Training on techniques of molecular biology and virology at Postgraduate Institute of Peradeniya, Sri Lanka.
- Training on equipment of Fourier Transform Infrared Spectroscopy (FTIR), Atomic Absorption Spectroscopy (AAS), UV Spectroscopy, Total Carbon and Nitrogen Analyzer (TOC) at IFS, Sri Lanka.

## SCHOLARSHIPS AND GRANT

- The University of Aarhus, Graduate School of Science and Technology (GSST) Ph.D. scholarship
- American Society for Microbiology (ASM) student travel grant to attend 6th ASM Conference on Biofilms 2012, Miami, Florida
- International Centre University of Peradeniya student travel grant to attend 6th ASM Conference on Biofilms 2012, Miami, Florida

## PUBLICATIONS

### Peer-reviewed articles and book chapters

- **Lasantha Herath**, G. Seneviratne, J. A. W. W. Jayasinghe, D. M. N. Senanayaka. Microbial biofilms and mitigation of loss of agro-biodiversity in degraded soils. (2017) Journal of the National Science Foundation of Sri Lanka, 45(4), 329 -335 <http://dx.doi.org/10.4038/jnsfsr.v45i4.8226>
- **Lasantha Herath**, Per Moldrup, Lis W. de Jonge, Mogens Nicolaisen, Trine Norgaard, Marcos Paradelo. Clay-to-carbon ratio controls the effect of herbicide application on soil bacterial richness and diversity in a loamy field. (2016) Journal of Soil Water and Air Pollution Volume 228. doi:10.1007/s11270-016-3175-6.
- Muhammad Naveed, **Lasantha Herath**, Per Moldrup, Emmanuel Arthur, Mogens Nicolaisen, Trine Norgaard, Ty P.A. Ferré, and Lis W. de Jonge (2016). Spatial variability of microbial richness and diversity and relationships with soil organic carbon, texture and structure across an agricultural field. Journal of Allied Soil Ecology, 103,44-55.
- Marcos Paradelo, Sheela Katuwal, Per Moldrup, Trine Norgaard, **Lasantha Herath**, and Lis W. de Jonge (2016). X-ray CT-derived soil matrix density and limiting macroporosity explain varying air and water transport properties across a loamy field. Vadose Zone Journal, 15, doi:10.2136/vzj2015.07.0104
- **Lasantha Herath**, K.R Menikdiwela, A.D Igalavithana, G. Seneviratne (2015). Developed fungal-bacterial biofilms having nitrogen fixers: universal biofertilizers for legumes and non-legumes. In Frans J de Bruijn (Ed) Biological Nitrogen Fixation Vol. 2. (1041-1046) John Wiley & Sons, Inc.
- **Lasantha Herath**, R. M. A. U Rajapaksha, M.Vithanage, G. Seneviratne (2014). Developed Fungal-Bacterial Biofilms as A Novel Tool for Bioremoval of Hexavalent Chromium from Wastewater. Chemistry and Ecology, 30, 418-427.
- Muhammad Naveed, Per Moldrup, Emmanuel Arthur, Martin Holmstrup, Mogens Nicolaisen, Markus Tuller, **Lasantha Herath**, Shoichiro Hamamoto, Ken Kawamoto, Toshiko Komatsu, Hans-Jörg Vogel, , Lis Wollesen de Jonge (2014). Simultaneous loss of soil biodiversity and functions along a copper contamination gradient : When Soil Goes to Sleep. Soil Science Society of America Journal, 78, 1239-1250.
- **Lasantha Herath**, Senanayake D. M. N., Seneviratne G., Bandara, D. C. (2013). Variations of Biochemical Expressions of Developed Fungal-Bacterial Biofilms over their Monocultures on Plant Growth. Journal of Tropical Agriculture, 24, 186-192.

### Abstracts and Proceedings

- **Lasantha Herath**, Per Møldrup, Mogens Nicolaisen, Trine Norgaard, Muhammad Naveed, Lis Wollesen de Jonge, (2014). Influence of Soil Physical Gradients in Spatial Distribution of Bacterial Communities; A Field Scale Study about Soil Inner Space Biology. ASA, CSSA, & SSSA International Annual Meeting, Long Beach, California, United States.
- **Lasantha Herath**, Per Møldrup, Mogens Nicolaisen, Trine Norgaard, Muhammad Naveed, Lis Wollesen de Jonge, (2014). Influence of Soil Moisture on Spatial and Temporal Variation of Microbial Communities in an Agroecosystem. ASA, CSSA, & SSSA International Annual Meeting, Long Beach, California, United States.
- **Lasantha Herath**, Per Møldrup, Mogens Nicolaisen, Trine Norgaard, Muhammad Naveed, Lis Wollesen de Jonge, (2013). Soil structure and its constituents affect soil bacterial diversity: A biophysical perspective to understand soil inner space. ASA, CSSA, and SSSA 2013 International Annual Meetings, Tampa, Florida, United States.

- **Lasantha Herath**, Senanayeke, N., Seneviratne G. (2012). Significance of Biochemical Expressions of Fungal- Bacterial Biofilms on Plant Growth Enhancement. 6th ASM Conference on Biofilms September 29<sup>th</sup> – October 4<sup>th</sup>, 2012, Miami, Florida.
- **Lasantha Herath**, Gunaratne S., Seneviratne G., Vithanage M. (2012). Fungal-Bacterial Biofilms Show High Cr (VI) Tolerance than Bacterial Biofilms or their Mono Cultures as Potential Bioremediator. 6th ASM Conference on Biofilms September 29<sup>th</sup> – October 4<sup>th</sup>, 2012, Miami, Florida.
- Seneviratne, G., **Lasantha Herath**, Peris, M. C. (2012). Developed Microbial Biofilms: Novel Biofertilizer Technique for Common Bean (*Phaseolus vulgaris*L.).16th Australian Nitrogen Fixation Conference, 24<sup>th</sup> – 27<sup>th</sup> June 2012, Q station, Sydney, Australia.
- Seneviratne, G., **Lasantha Herath**, Manikdiwela, K. R. (2012). Impact of microbial biofilms as biofertilizers on different crops. *In*. Proceedings of Sri Lanka – India Conference on Agro Biotechnology for Sustainable Development. 12<sup>th</sup>-13<sup>th</sup> March, B.M.I.C.H., Colombo, Sri Lanka.
- Seneviratne G., **Lasantha Herath**, Senanayeke D. M. N. (2012). Significance of Biochemical Expressions of Fungal Bacterial Biofilms on Plant Growth Enhancement. *In*. Proceedings of Sri Lanka– India Conference on Agro Biotechnology for Sustainable Development. 12<sup>th</sup> -13<sup>th</sup> March, B.M.I.C.H., Colombo, Sri Lanka.
- Seneviratne G., **Lasantha Herath**, Senanayeke D .M. N. (2012). Biochemical Expression of Exudates of a Fungal-Bacterial Biofilm during Growth and Maturation. Annual Science Research Session, South Eastern University of Sri Lanka. 28<sup>th</sup> -29<sup>th</sup> March, Sammanthurai, Sri lanka.
- **Lasantha Herath**, Gunarathne H. K. S. N. S., Seneviratne G., Vithanage M. (2012). Fungal-Bacterial Biofilms Show High Cr (VI) Tolerance than Bacterial Biofilms or their Mono cultures as Potential Bioremediator. The Fourth International Symposium of Sabaragamuwa University of Sri Lanka.
- Seneviratne, G., **Lasantha Herath**, Ariyawansa, H. A., Jayasekara, A. P. D. A., Kennedy, I. R., (2011). Developed microbial biofilms: A Novel Rhizoremediation Tool to Heal Soil Sickness. Exploratory workshop biofilms: friend or foe? Berlin, Germany.
- Seneviratne, G., **Lasantha Herath**, (2011). Biofilm Based Bioremediation Method to Rreduce Cadmium Llevels in Agricultural Soil. International Symposium on Natural Products and their Applications in Health and Agriculture. Institute of Fundamental Studies (IFS), Kandy, Sri Lanka.
- Seneviratne, G., **Lasantha Herath**, Igalavithana, A. D. (2011). Enhancement of Glyphosate Biodegradation via Developed Microbial Biofilms. International Symposium on Natural Products and their Applications in Health and Agriculture. Institute of Fundamental Studies, Kandy, Sri Lanaka.
- Samarasekara, R., Siriwardhana D. A. S., **Lasantha Herath**, Ahangama D. Microbial Control of Cabbage Caterpillar by *Bacillus thuringiensis* of Sri Lankan Origin (June 2009), 38<sup>th</sup> Institute of Chemistry Ceylon Annual Session
- Samarasekara, R., Siriwardhana D. A. S., **Lasantha Herath** (2009). Biological Control of Agricultural Pests by *Bacillus thuringiensis* (Bt). National Research Council, Presidential Secretariat, Symposium on Research for National Development, p. 18-21

## EDITORIAL DUTIES AND SOCIETY MEMBERSHIPS

- Recognized reviewer for Journal of Hazardous Materials and Agriculture Ecosystem and Environment
- Surve as reviewer for Bulletin of Environmental Contamination and Toxicology
- Member of American Society of Microbiology since(ASM) 2012
- Member of Soil Science Society of America since (SSSA) 2013

## REFERENCES

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