# **CURRICULUM VITAE**



# Yohan Buddika Jayawardhana

Kuruwattha, Pathakada, Pelmadulla.

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# 1. Career Development

- Research Assistant, Chemical and Environmental Systems Modeling Research Group, National Institute of Fundamental Studies, Hantana Road, Kandy, Sri Lanka (January 2016-to date)
- Research Assistant, In collaboration with Department of Civil Engineering, Faculty of Engineering, University of Peradeniya, Sri Lanka and Chemical and Environmental Systems Modeling Research Group, National Institute of Fundamental Studies, Hantana Road, Kandy, Sri Lanka (August 2014- December 2015)
- **Geologist**, GEO Corporation Ltd, No.299, Galle Road, Colombo 03, Sri Lanka (November 2013 August 2014)
- Naturalist, Eco Team (Pvt) Ltd, Fairfield Gardens, Colombo 08 (May 2013- October 2013)

# 2. Academic Profile

# POSTGRADUATE EDUCATION (READING)

**Degree** M.Phil. in Environmental Sciences

University Postgraduate Institute of Science, University of Peradeniya, Sri

Lanka

**Duration** March 2015- to date

**Medium of instruction** English

Thesis title Potential use of municipal solid waste derived biochar for

remediation of volatile organic compounds in landfill leachate

#### UNDERGRADUATE EDUCATION

Degree B.Sc. (Applied Sciences) Special in Environmental Sciences and

Natural Resource Management, 2<sup>nd</sup> Class Lower Division

University Sabaragamuwa University of Sri Lanka, Sri Lanka

**Duration** 4 years (November 2008 to May 2013)

**Medium of instruction** English

Thesis title Application of GIS and RS Techniques to Identify Farmer's

Contribution for Soil Erosion in Upper Mahaweli Catchment

#### SECONDARY EDUCATION

R/ Gankanda Central College, Pelmadulla (1998- 2007)

# 3. Professional Experience

#### INSTRUMENTATION

Gas Chromatography Mass Spectrometry (GC-MS), Gas Chromatography (GC), Ion Chromatography (IC), Ultra Performance Liquid Chromatography (UPLC), Atomic Absorption Spectroscopy (AAS), Fourier Transform Infrared Spectroscopy (FTIR), UV-Visible Spectrophotometer, Uses of Auto Titrator and Ion Selective Electrodes (ISE), Borehole Drilling Machine, Single Packer

#### FIELD OF INTERESTS

- ➤ Analysis of volatile organic compounds generated from landfill sites
- ➤ Water and wastewater treatment technologies
- > GIS and remote sensing analysis in environmental science

### 4. Research Publications

#### ARTICLES IN SCIENCE CITATION INDEX JOURNALS

- Meththika Vithanage, Yohan Jayawardhana, Kumarathilaka, S.S. Mayakaduwa, Sewwandi Gamage (2016). Utilization of municipal solid waste derived biochar for the removal of volatile organic compound, benzene from landfill leachate. Environmental Technology (Under review)
- Prasanna Kumarathilaka, Yohan Jayawardhana, B. F. A. Basnayake, M. I. M. Mowjood, M. Nagamori, Takeshi Saito, Ken Kawamoto, and Meththika Vithanage. Characterizing volatile organic compounds in leachate from Gohagoda municipal solid waste dumpsite, Sri Lanka. Groundwater for Sustainable Development 2 (2016): 1-6.
- Meththika Vithanage, Indika Herath, S. S. Achinthya, Tharanga Bandara, Lakshika Weerasundara, S. S. Mayakaduwa, Yohan Jayawardhana, and Prasanna Kumarathilaka. Iodine in commercial edible iodized salts and assessment of iodine exposure in Sri Lanka. Archives of Public Health 74, no. 1 (2016): 1.

#### **BOOK CHAPTERS**

Yohan Jayawardhana, Prasanna Kumarathilaka, Indika Herath, Meththika Vithanage (2016). Municipal solid waste produced biochar application for prevention of landfill leachate pollution. In (Eds.) Prasad MNV, Shih K., Environmental Materials and Waste: Resource Recovery and Pollution Prevention, Elsevier, USA

#### PAPER PUBLICATIONS IN INTERNATIONAL CONFERENCES

- Meththika Vithanage, Yohan Jayawardhana, Lakshika Weerasundara, Prasanna Kumarathilaka, B.G.N. Sewwandi. Municipal solid waste biochar remediate its own waste: Removal of dissolve organic carbon and volatile organic compounds in landfill leachate. SCA-16, Colombo, Sri Lanka, May 30, June 01, 2016
- Prasanna Kumarathilaka, Yohan Jayawardhana, Wasantha Dissanayaka, Indika Herath, Lakshika Weerasundara, Meththika Vithanage. General characteristics of hospital wastewater from three different hospitals in Sri Lanka, 6<sup>th</sup> International Conference on Structural Engineering and Construction Management 2015, Kandy, Sri Lanka, 11-14 December 2015

- Yohan Jayawardhana, Prasanna Kumarathilaka, Lakshika Weerasundara, Mohammed Mowjood, Gemunu Herath, Ken Kawamoto, Masanao Nagamori, Meththika Vithanage, Detection of benzene in landfill leachate from Gohagoda and its removal using municipal solid waste derived biochar, 6<sup>th</sup> International Conference on Structural Engineering and Construction Management 2015, Kandy, Sri Lanka, 11-14 December 2015
- Indika Herath, Prasanna Kumarathilaka, **Yohan Jayawardhana**, Sonia Mayakaduwa, Tharanga Bandara, Subhash Wickramasinghe, Meththika Vithanage. Rice husk derived engineered biochar for glyphosate removal in aqueous media: Engineered biochar for pesticides removal. International Conference on Clean Water, Air & Soil, Malaysia. 28-30 August 2015. Springer international publishing (ISBN: 978-3-319-26170-6)
- Yohan Jayawardhana, Meththika Vithanage, Ken Kawamoto, Junko Hara, Ming Zhang. Vector Based GIS Applications to Select Suitable Land for Landfill Sitting in Kandy, Sri Lanka. 3<sup>rd</sup> International Symposium on Advances in Civil and Environmental Engineering Practices for Sustainable Development (ACEPS 2015) University of Ruhuna Sri Lanka, 9<sup>th</sup> March 2015 (ISSN 2279-1329)
- Yohan Jayawardhana, Sonia Mayakaduwa, Prasanna Kumarathilaka, Anurudda Karunarathna, B.F.A. Basnayake, Meththika Vithanage. Potential use of municipal solid waste biochar for the remediation of toluene generated from the Gohagoda landfill site, Sri Lanka. 5<sup>th</sup> International Conference on Sustainable Built Environment, Kandy, Sri Lanka. 12-15 December 2014 (ISBN:978-955-589-187-5)

#### ABSTRACT PUBLICATIONS IN INTERNATIONAL CONFERENCES

Jayawardana B.A.Y.B, Udayakumara E.P.N, Dammalage T. and Fowze J.S.M. Application of GIS and RS Techniques to Identify Farmer's Contribution for Soil Erosion in Upper Mahaweli Catchment. 1st International Symposium on "Environment Management and Planning" Central Environmental Authority 23rd – 24th February 2015. (ISSN 2424 – 6603)

# 5. Science Popularization

### NEWSPAPER ARTICALS

■ පරිසරයටත් ජන ජීවිතයටත් හානියක් නොවන ලෙස කසල බැහැර කරන්න GIS තාක්ෂණය (GIS technology for sustainable practices of waste landfill selection) 13th March 2015. **Dawasa**.

#### **TEACHING**

- Instrumentation lecture on waste and waste water analysis to the post graduate students, water and environment engineering, University of Peradeniya.
- Teaching wastewater analysis practical's to the postgraduate students, Postgraduate Institute of Agriculture, University of Peradeniya

## 6. Training and development

## TRAINING PROGRAMMES / FIELD STUDIES ATTENDED

- Waste management technologies, practices, and site selection with the GIS techniques under the project of Development of Pollution Control and Environmental Restoration Technologies of Waste Landfill Sites Taking into Account Geographical Characteristics in Sri Lanka.
- Waste Management practices and Environmental Pollution Control Measures & Risk Assessment studies in Board of Investment, Biyagama and Holcim Lanka, Puttalam

- Energy Recourse Management Techniques study in National Engineering Research and Development center, Colombo
- Carrying out geotechnical investigations in Badulla, Hali-ela, Ella integrated Water Supply Project under Geo Corporation Ltd. Furthermore Dam site geotechnical investigations, borehole logging, geological and hazard zonation mapping (ArcGIS)
- Participation in Scientific Preparatory Meeting on Sri Lanka's Continental Shelf Margin Claim defense at the Geological Surveys and Mines Bureau
- Mines and geological studies in Bogala- Graphite, Galaha- Quartz, Mathale- Topaz & Feldspar, and Eppawala- Phosphate deposits
- Biodiversity Conservation, Utilization & Management studies in Sinharaja Man and the Biosphere Reserve
- Part time field researcher for Carbon Consulting Company in Sri Lanka. Worked involved, forest mensuration and Identification of trees and data tabulation of base load carbon estimation of home gardens - Hiniduma bio linkage project in tropical wet zone of Sri Lanka in Kanneliya
- Field Techniques of the study of Natural Resources in Horton Plane National park
- Bird study field techniques workshop at ornithological field study & monitoring center, Belihul-oya
- First national survey on Elephant in Sri Lanka, Udawalawe National Park

#### PROFESSIONAL DEVELOPMENT

- Chromatographic Techniques and Their Applications, Institute of Chemistry Ceylon, Sri Lanka, 26<sup>th</sup> February 2015
- 6<sup>th</sup> National workshop on Scientific Writing, Postgraduate Institute of Science, University of Peradeniya, Sri Lanka, 4<sup>th</sup>-5<sup>th</sup> December 2014

#### PROFESSIONAL AFFILIATIONS

- Ordinary Member Geological Society of Sri Lanka
- Member –Carbon consulting research team
- Member Young Researchers' Forum, Postgraduate Institute of Science, University of Peradeniya, Sri Lanka
- Associate Member Feild Ornithology Group of Sri Lanka (FOGSL), University of Colombo, Sri Lanka

## LEADERSHIP ROLES

- Organizing committee member: "Driving Research Towards Economy", SLAYS 2<sup>nd</sup>
   International Symposium, Kandy, 13-14 November 2014
- **Student representative**: Department of Natural Resources, Sabaragamuwa University of Sri Lanka (2011-2013)

# 7. Personal Details

Name in full : Bogoda Arambe Yohan Buddika Jayawardhana

Name with initials : Jayawardhana B. A. Y. B

**Current designation**: Research Assistant

Official address : Chemical and Environmental Systems Modeling Research Group,

National Institute of Fundamental Studies, Hantana Road, Kandy,

Sri Lanka.

**Date of Birth** : 27<sup>th</sup> of October 1987

**Gender** : Male

Nationality : Sri Lankan

## 8. Non Related Referees

(1)

Dr. Meththika Vithanage, Dr. E.P.N. Udayakumara,

Senior Research Fellow, Senior Lecturer,

National Institute of Fundamental Studies, Dept. of Natural Resources,

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I hereby certify that the above information given by me is correct to the best of my knowledge

92.06.2016

(Jayawardhana B. A. Y. B) (Date)