



# Tharindu Samarasinghe

Mechanical Engineer – Energy Efficiency Specialist

✉ meptharindu@gmail.com ☎ 0776330762 📍 11 Siripa Road, 0500 Colombo 05

## Education

**Doctor of Philosophy (Ph.D.) - Engineering** Feb 2015 – Apr 2019

University of Melbourne, Melbourne

**Design Optimization for Off-Site Manufacture and Assembly of MEP Systems** – The research is focused on development of a design optimization algorithm that identifies the optimum module configuration to achieve minimum installation cost, while satisfying the installation and operation constraints of MEP systems.

**Bachelor of Engineering with Honours (BEng. (Hons.)) - Mechanical Engineering - Frist Class** Sep 2010 – Sep 2013

Queen Mary, University of London, London

## Employment

**Energy Efficiency Specialist** Oct 2021 – Present

Chemonics International, Inc., Colombo

Energy Efficiency Specialist (Industrial/Commercial) for USAID's Sri Lanka Energy Program. Focus Areas- Demand Response, Demand Side Management, Electricity Tariff, Energy Conservation, and Energy Storage.

**Co-founder/Director MEP Operations** Oct 2021 – Present

Headrogen (Pvt.) Ltd., Colombo

Headrogen is a building services engineering consultancy firm based in Australia with offices in Sri Lanka and Pakistan.

Focus areas – MEP Design, Energy Efficiency, Sustainable rating, Energy Modeling, Building Information Modeling (BIM), MEP Testing & Commissioning, Fire Engineering, and Infrastructure design.

**Director/ Mechanical and Sustainability Design Lead Engineer** Jan 2019 – Oct 2021

Building Services Engineering Consultants (Pvt.) Ltd., Colombo

MEP and Sustainability Consultancy – Focus areas – Design and construction management

**Building Services Engineer** Aug 2013 – Dec 2018

Civil and Structural Engineering Consultants (Pvt.) Ltd, Colombo

Knowledge and experience in the field of building services engineering (M&E) and fire safety in high-rise structures (3 years Full-time, 3 years part-time)

**Assistant Energy Auditor** Aug 2015 – Dec 2015

LID Consulting- Low Impact development, Melbourne

Worked Part-time as an assistant energy auditor for rating buildings as per GreenStar Australia.

## Personal details

LinkedIn

[linkedin.com/in/tharindu-samarasinghe-1997266b](https://www.linkedin.com/in/tharindu-samarasinghe-1997266b)

## Professional Affiliations

Associate member: Institute of Mechanical Engineers (UK) AMIMechE

Associate professional: Green Building Council of Sri Lanka

LEED Green Associate

## Professional Trainings

ASHRAE HVAC Design Level I and Level II Certification

CPD course: Plumbing Engineering, IESL

Certified installer- Defender Kitchen Fire Suppression Systems

## Scholarships and Awards

Melbourne International Fee Remission Scholarship (MIFRS), The University of Melbourne, Australia

Melbourne International Research Scholarship (MIRS), The University of Melbourne, Australia

**Graduate Intern** Jun 2015 – Sep 2013  
JetView Properties (Pvt) Ltd, London  
Worked as a Summer Intern in Building Services Engineering and Architectural Building Modeling

**Undergraduate Intern** Jun 2011 – Sep 2011  
Colombo Dockyard PLC, Colombo  
Summer Internship. Knowledge and experience related to mechanical engineering and Shipbuilding. Departments – Hull Repair, Hull Construction, Engine Workshop, QA & QC.

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## Academic Appointments

**Adjunct. Senior Lecturer** Jun 2021 – Present  
General Sir John Kotelawala Defence University (KDU)  
Department for Mechanical Engineering – Building Services  
Engineering Course Development and Lecturing

**Visiting Lecturer** Jan 2020 – Present  
Green Building Council of Sri Lanka  
Subject Areas – Green Rating Tool, Energy, Indoor Air Quality

**Visiting Lecturer** Jan 2021 – Dec 2021  
Sri Lanka Technology Campus (SLTC)  
Department of Civil Engineering – Building Services

**Tutor** Mar 2016 – Dec 2016  
University of Melbourne (Australia)  
Department of Infrastructure Engineering – Building Information Modeling

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## MEP & Sustainability Projects

**The One Project, Colombo, Sri Lanka** 2019 – 2021  
Mechanical Design Lead

**Colombo Lotus Tower** 2020 – 2021  
Commercialization Model and Project Feasibility

**Dialog Data Centre, Malabe, Energy Audit** 2019 – 2020  
Auditor for Energy usage in Mechanical System

**Saga Solar 10 MW Solar Power Plant** 2020 – 2021  
Performance Assessment & Plant Management Consultancy

**Capital Twin Peaks** 2019  
Building Energy and Green Consultancy  
Gold Certified Green Building Project

**Gal Oya Lodge** 2015  
Green Certification and Energy Consultancy  
Achieved Platinum certification for the project.

**Premium Injectables – Insulin Manufacturing Plant, Koggala** 2020 – 2021  
Mechanical and Sustainability Review Consultant

**Ahangama Serviced Apartments and Hotel** 2018 – 2021

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## Topics of Interest

- Energy Efficient HVAC Design
- Prefabricated MEP Construction
- Sustainable Design
- Disease Resilient HVAC Design
- Indoor Air Quality (IAQ)
- Demand Response
- Data Driven HVAC Design
- Energy Efficient HVAC Design for Healthcare Applications
- Energy Storage and Advanced Heating and Cooling Systems

MEP Design Manager	
<b>South Beach Weligama – Apartments</b> Mechanical Design Lead	2020 – 2021
<b>Occidental Eden Hotel- Barcelo Group</b> MEP Due Diligence assessment and Energy study	2021
<b>Park Street Office Building</b> MEP Design Engineer	2020
<b>Navesta Pharmaceutical Warehouse, Horana</b> MEP Design Lead	2021 – 2022
<b>Tangalle Hotel/Chalets</b> HVAC & Plumbing Design Engineer	2019
<b>George Steuarts Tea Packaging Facility</b> MEP Design Lead	2020 – 2021
<b>Softlogic Supermarkets (Kottawa, Orion city, Kandy ,Kurunagala, Mt. Lavinia)</b> MEP Design Lead	2018 – 2019
<b>Outer Circular Highway (Kerawalapitiya –Kadawatha) Interchange</b> MEP Design Lead	2018
<b>Prime land Uswatakiyawa 2</b> MEP Design Lead	2018
<b>Homeland Apartments - Thimbirigasyaya</b> Mechanical Design Engineer	2017 – 2018
<b>Arpico Supercenter Katugatota and Kegalle</b> MEP Design Engineer	2017 – 2019
<b>Colombo Lotus Tower Project</b> Mechanical Site Engineer	2013 – 2014
<b>Sheraton Kosgoda Hotel</b> Mechanical Design Review and Construction Management	2018 – 2020
<b>Wathupitiwala Hospital</b> HVAC Designer - Theatres	2021

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## Journal and Conference Publications

### Dependency Structure Matrix and Hierarchical Clustering based algorithm for optimum module identification in MEP Systems

Samarasinghe, T., Gunawardene, T., Mendis, P., Aye, L., Sofi, M  
Journal paper (peer reviewed), Automation in Construction, 2019

### CAMPH BIM Initiatives: Modularisation and Standardisation of MEP

Samarasinghe, T., Heath, D  
Published Article, Built Offsite (Issue 10), 8 August, pp 37

**An optimum construction strategy for multi-story residential prefabricated modular buildings**

Weerasinghe, P., Samarasinghe, T., Gunawardena, T., Nguyen, K., Mendis, P., Ngo, T., & Aye, L.

Conference Paper - ZEMCH2018 International Conference, Melbourne, 29 January–1 February 2018

**An Optimization method for MEP plant room Modularization**

Samarasinghe, T., Mendis, P., Aye, L.

Conference Paper - ZEMCH2018 International Conference, Melbourne, 29 January–1 February 2018

**BIM and modular MEP for Super-Tall and Mega-Tall Buildings.**

Samarasinghe, T., Mendis, P., Aye, L., Gunawardena, T., Fernando, S., & Karunaratne, R.

Conference paper - 8th International Conference On Structural Engineering And Construction Management, December 2017, Kandy, Sri Lanka

**Applications of design for excellence in prefabricated building services systems.**

Samarasinghe, T., Mendis, P., Aye, L., & Vassos, T.

Conference Paper - 7th International Conference on Sustainable Built Environment, December 2016 Kandy, Sri Lanka

**BIM Software Framework for Prefabricated Construction: Case Study Demonstrating BIM Implementation on a Modular House**

Samarasinghe, T., Mendis, P., Ngo, T., & Fernando, W.

Conference Paper - 6th International Conference on Structural Engineering and Construction Management, December 2015, Kandy, Sri Lanka

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## Panel Discussions and Conference Talks

**How Sustainability in Built Environments Helps Controlling Pandemics?**

Panel Discussion, Green Building Council of Sri Lanka, November 2020

**Green Talk on Engineering Control to Mitigate COVID 19 Spread in Indoor Environment**

Green Talk, Green Building Council of Sri Lanka, October 2020

**An Optimization method for MEP plant room Modularization**

ZEMCH2018 International Conference, Melbourne, 29 January–1 February 2018

**Advanced Modeling and Manufacture of Sustainable DFMA Systems for Prefabricated Buildings**

Panel Discussion - PrefabAUS Conference 2016, Sydney Australia

**BIM and modular MEP for Super-Tall and Mega-Tall Buildings**

Conference Talk - 8th International Conference On Structural Engineering And Construction Management, December 2017, Kandy,

Sri Lanka

### **Building Services Engineering**

Professional Presentation – IESL Northern Chapter, 2021

**Role of Green Building in Fighting the Pandemic and the Energy Crisis** 2022

IESL Civil Engineering Sectional Committee

**Economic Optimum Between Active and Passive Fire Protection** 2022

Fire Design Webinar – Organised by Structural Design Institute (SDI) & Colombo School of Engineering.

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## References

**Professor Priyan Mendis**

Department of Infrastructure Engineering, University of Melbourne,  
Melbourne

+61 3 8344724, [pamendis@unimelb.edu.au](mailto:pamendis@unimelb.edu.au)

**Bhathiya Waduge**

Managing Director, Building Services Engineering Consultants,  
Colombo

+94 (77) 7123954, [bhathiya@csec.lk](mailto:bhathiya@csec.lk)