



Nimesha Sahani JAYASENA

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Obtained the B.Sc. (Hons) degree with a first class and the Masters degree from University of Moratuwa, Sri Lanka

Supervisor

Chief Supervisor: Dr. Daniel W.M. Chan

Co-supervisor: Professor Mohan Kumaraswamy

Area of Research

Smart Cities

Smart Infrastructure

Public-Private Partnership



Research Scope

The growing demands for urbanisation and focused sustainable development is required to be merged into a common goal for urban development activities throughout the world. In such a context, the concept of “smart city” has been identified as an ideal solution to achieve sustainable urban development and this in turn requires the development of smart infrastructure. In developing smart infrastructure, challenges often arise when sourcing investments and managing stakeholders. PPP is seen as a route to overcome many of those challenges. Therefore, the scope of the research is to develop PPP models for optimising and accelerating the development of smart infrastructure development projects.

Research Methodology

Research Approach: Mixed Approach

Data collection: In-depth interviews, Case Studies, Focus group meetings, Desktop Study

Data Analysis: Content analysis through NVivo software, System Dynamics, Factor analysis

Prizes and Awards

1. Gold medal for the Facilities Management Graduand who has obtained highest overall Grade Point Average of 3.8 or above at the Honours Degree of Bachelor of Science in Facilities Management examinations (Donated by RICS Sri Lanka)

Publication List

1. Jayasena, N.S., Chan, D.W.M. and Kumaraswamy, M. (2020), "A systematic literature review and analysis towards developing PPP models for delivering smart infrastructure", *Built Environment Project and Asset Management*, <https://doi.org/10.1108/BEPAM-11-2019-0124>
2. Jayasena, N.S., Mallawaarachchi, H. and De Silva, L. (2019), "Environmental Sustainability of Facilities Management: Analytical Hierarchy Process (AHP) based Model for Evaluation", *Built Environment Project and Asset Management*, 10(2), 261-276.
3. Perera W.Y., Perera J.B.K.S. and Jayasena N.S. (2019), "Adaptability of the Shared Workspace Concept, for Office Buildings in Sri Lanka", *Intelligent Buildings International*. DOI: 10.1080/17508975.2019.1588701
4. Jayasena N.S., Mallawaarachchi, H. and Waidyasekara, K.G.A.S., (2019). Stakeholder Analysis For Smart City Development Project: An Extensive Literature Review, MATEC Web of Conferences, 266, pp. 06012
5. Jayasena N.S., Mallawaarachchi, H. and Waidyasekara, K.G.A.S., (2019). A Critical Review on the Drivers and Barriers for Enabling Smart Cities, in the Ninth International Conference on Industrial Engineering and Operations Management (IEOM 2019). Pp. 2405-2413.
<http://www.ieomsociety.org/ieom2019/papers/542.pdf>
6. Jayasena N., Mallawaarachchi H. and Waidyasekara K.G.A.S., (2018). Initiating Smart City Concept for Sustainable Urban Development: A Literature Review, in the Tenth International Conference on Construction in the 21st Century (CITC-10). Pp 469-477.
7. Jayasena N. and Mallawaarachchi H., (2018). Environmental Sustainability Assessment for Facilities Management: Apparel Sector in Sri Lanka, in the 7th World Construction Symposium 2018: Built Asset Sustainability: Rethinking Design, Construction and Operations. pp 223-232.
8. Jayasena N.S., Mallawaarachchi, H. and Waidyasekara, K.G.A.S., (2018). Stakeholder analysis for smart city development: a project based framework, in the International Conference on Built Environment and Engineering (IConBEE2018).

9. Herath H.M.P.K., Rajini D., Rathnayake U. and Jayasena N., (2018). Customer Relationship Management in Facilities Management: A Study of Office Buildings in Sri Lanka, in the 7th World Construction Symposium 2018: Built Asset Sustainability: Rethinking Design, Construction and Operations. pp 185-194.

10. Manoj S., Mallawaarachchi H., Soorige S.D.A. and Jayasena N., (2018). Accessibility of Emergency Evacuation for Differently Abled People in Public Hospital Buildings in Sri Lanka: The National Policy Enhancements, in the 7th World Construction Symposium 2018: Built Asset Sustainability: Rethinking Design, Construction and Operations. Pp 13-22.

11. Kumari, L.M.T., Kulatunga, U., Madusanka, N. and Jayasena, N. (2018). Embodied Carbon Reduction Strategies for Buildings, in the Ninth International Conference on Sustainable Built Environment (ICSBE 2018). pp 113-125.

Hobbies

Listening to music

Updated in July 2020