Curriculum Vitae

PERSONAL DETAILS:

Name:	Chintha Jayasinghe (nee' Kandanarachchi) B.Sc. (Eng), M.Eng. (Highway and Traffic Engineering), Ph.D., C. Eng., MIE (SL)
Address:	120/34, C.T. Gardens, Gangarama Road, Thumbowila, Piliyandala, Sri Lanka.
Contact:	Email: *chintha@uom.lk* Tel: *+94-11-2606056 (home),* *+94 –11 – 2650567 (office)* Fax: *+94 – 11 – 2651216 (office)* *Mobile; +94-777-310890*
Date of Birth:	30th August, 1964
Marital Status:	Married [Husband – Prof. Thishan Jayasinghe B.Sc. (Eng), Ph.D (Cambridge), C.Eng.]

CAREER OBJECTIVE:

Disseminate the knowledge while contributing to the global development by carrying out state of the art research in the areas of sustainable design, cost effective construction, and alternative building materials.

TERTIARY QULIFICATIONS

- Ph.D (Alternative Building Materials), University of Moratuwa – 1999
- M.Sc (Highway and Traffic Engineering), University of Moratuwa – 1996
- B.Sc Engineering Honours, University of Moratuwa– 1990

CARRIER SUMMARY:

June 2021 to June 2024	**Head, Department of Civil Engineering, Faculty of Engineering, University of Moratuwa**
Sept 2017 to date	Senior Professor, Department of Civil Engineering, University of Moratuwa.
August 2019	Visiting Academic, Department of Architecture and Civil Engineering, University of Bath, United Kingdom.

March 2019	Visiting Academic, Department of Civil Engineering, University of Liverpool, United Kingdom.
March 2018 –May 2018	Visiting Academic, Department of Civil Engineering, Queensland University of Technology, Australia.
June 2017 – Aug 2017	Visiting Academic, Department of Architecture and Civil Engineering, University of Bath, United Kingdom.
Feb.2012 – May 2017	**Director, Postgraduate Studies Faculty of Engineering, University of Moratuwa**
Sep.2009 – to date	Professor, Department of Civil Enginering, University of Moratuwa, Sri Lanka.
Jan.2004 – Sept.2009	Senior Lecturer, Department of Civil Engineering, University of Moratuwa, Sri Lanka.
Apr.2003 – Dec 2003	Research Fellow, School of Civil Engineering, Queensland University of Technology, Australia.
Nov 1997 – 2004	Consultant – National Road safety secretariat, Ministry of Highways and Transport, Sri Lanka jointly with Swe Road International Consultants.
Nov 2000 – Mar 2003	Head, Division of Civil Engineering Technology, Institute of Technology, University of Moratuwa, Sri Lanka.
April 2000 – Nov 2000	Senior Lecturer, Department of Civil Engineering, University of Moratuwa, Sri Lanka.
July 1999 – Mar 2000	Senior Lecturer, Department of Civil & Environmental Engineering, University of Ruhuna, Sri Lanka.
July 1995 – Mar 1999	Post graduate researcher – Department of Civil Engineering, University of Moratuwa, leading to PhD
May 1993 – Dec 1996	Visiting lecturer, University of Moratuwa, Sri Lanka.
May 1994 – July 1995	Research Engineer, University of Moratuwa, Sri Lanka.
July 1992 - May 1993	Office Engineer, Link Engineering Ltd, Sri Lanka.
Aug 1990 – Mar 1992	Assistant Structural Design Engineer, Department of Transportation, Cambridgeshire County Council, Cambridge, United Kingdom.

SPECIAL AWARDS

1. **Most outstanding Senior Academic for the Research Excellence, awarded by the Committee of Vice Chancellors and Directors Sri Lanka (CVCD), 2016** ***(Awarded to a university academic once in a lifetime)***
2. **President's Award for the Scientific Research 2017 (given for top 100 research publications based on the impact factor), Awarded by National Research Council, Sri Lanka.**
3. **President's Award for the Scientific Research 2016, Awarded by National Research Council, Sri Lanka.**
4. **Commendation of Research Awarded by National Science Foundation July 2013**
5. Appreciation of Outstanding Research Performance up to December 2021 –Award with Distinction– University of Moratuwa
6. Appreciation of Outstanding Research Performance up to December 2020 –Award with Distinction– University of Moratuwa
7. Appreciation of Outstanding Research Performance up to December 2018 –Award with Distinction– University of Moratuwa
8. Appreciation of Outstanding Research Performance up to December 2017 –Award with Distinction– University of Moratuwa
9. Appreciation of Outstanding Research Performance up to December 2010 – award under the 03 Year Category – University of Moratuwa
10. Appreciation of Outstanding Research Performance up to December 2009 – award under the 03 Year Category – University of Moratuwa
11. Appreciation of Outstanding Research Performance up to December 2008 – award under the 03 Year Category – University of Moratuwa
12. Appreciation of Outstanding Research Performances up to December 2007 – award under the 03 Year Category - University of Moratuwa
13. Appreciation of Outstanding Research Performances up to December 2006 – award under the 03 Year Category - University of Moratuwa
14. Award for the best research paper published in the journal of Institution of Engineers, Sri Lanka in year 2006

15. Award given for the best project on sustainable construction by Holcim Lanka Limited in year 2006

16. Presidential scholarship for the university academic category in 2002

FOREIGN COLLABORATIONS

1. **Editorial panel member of Building Research and Information Journal by Taylor and Francis, 2018 to date**
2. **Sri Lankan collaborator for the Innovate UK on Energy Catalyst Round10, Research fund, Awarded in September 2023 (on-going project)**
3. **Sri Lankan collaborator for the Global Challenges Research Fund allocation for 2018/2019, "Safer communities with natural hazard resilient housing" (*Successfully completed*) with University of Bath, United Kingdom.**
4. **Sri Lankan collaborator for the Global Challenges Research Fund Networking Grant United Kingdom, for "Enhanced Earth based building materials network for housing targeted the low income population (Earth4Nest) in March 2018 *(successfully completed)* with University of Bath, United Kingdom.**
5. **Sri Lankan collaborator of the Royal Society Challenge Grant CHG\R1\170062, Awarded in November 2017 to University of Bath, United Kingdom for the project entitled "Safer communities with hydro-meteorological disaster resilient houses' *(Successfully completed)*.**
6. **Sri Lankan collaborator for the GCRF project on Sustainable design framework, with Liverpool John Moores University, United Kingdom (2018).**

RESEARCH PUBLICATIONS IN REFEREED JOURNALS & SYMPOSIA

1. G. G. T. D. Wickramathilake, C. Jayasinghe & I. E. Ariyaratne, "Machine learning-based assessment of corrosion related damages in low-rise reinforced concrete buildings", International Journal of Construction Management, 1-27, Taylor & Francis

2. C. Jayasinghe , I.E. Ariyarathne , O.M. Hasaranga and R.M.M.N.D. Mapa, "Waste to Building Material: A New Masonry Block with Glass Waste", Journal of the International Masonry Society Masonry International Vol 36. No 1. 2025.

3. D. Thoradeniya , C. Jayasinghe , I. E. Ariyaratne & G. B. M. A. Basnayake, "Construction quality framework for school buildings: damage detection and rectification Prioritization", International Journal of Construction Management, Taylor and Francis, 2025, ISSN: 1562-3599 (Print) 2331-2327 (Online) Journal homepage. www.tandfonline.com/journals/tjcm20.

4. Sharon Vanmathy Gurupatham, Chintha Jayasinghe, Piyaruwan Perera, Raju Lepakshi, "Building material selection framework for tropical climatic conditions: Eco-design-based approach", Green Technologies and Sustainability, Volume 2, Issue 3, September 2024, 100103.

5. Mohomad Sajjad, Chintha Jayasinghe, Piyaruwan Perera, "Damage Assessment Automation for Single Storey detached Masonry Houses: A Probabilistic Approach", Building Research & Information, Volume 52, 2024 - Issue 5.

6. G. G. T. D. Wickramathilake, C. Jayasinghe, & I.E. Ariyaratne, "Assessment of corrosion-related damages in low-rise reinforced concrete buildings – A case study-based approach", In Proceedings of the 15th International Conference on Sustainable Built Environment (ICSBE 2024), Kandy, Sri Lanka.

7. B. R. W. M. D. Thoradeniya, C. Jayasinghe, & I.E. Ariyaratne, "A comprehensive study on the drawbacks in the operations and maintenance processes of school buildings in Sri Lanka", In Proceedings of the 15th International Conference on Sustainable Built Environment (ICSBE 2024), Kandy, Sri Lanka.

8. H. G. T. Ravishka, C. Jayasinghe, & I.E. Ariyaratne, "Utilization of construction and demolition waste as a replacement for natural sand in mortar", In Proceedings of the 15th International Conference on Sustainable Built Environment (ICSBE 2024), Kandy, Sri Lanka.

9. G. G. T. D. Wickramathilake, C. Jayasinghe, & I.E. Ariyaratne, "Development of crack-severity based damage assessment matrix for masonry buildings", In Proceedings of the 14th International Conference on Sustainable Built Environment (ICSBE 2023), Kandy, Sri Lanka.

10. N.R. Kumarage, C. Jayasinghe, K.P.H. Perera, K.K.G.K.D. Kariyawasam, E.P. Wickramasinghe, Assessment of Indoor Air Quality and Sick Building Syndrome in Apartment Buildings, ICSBE Kandy Springer 2022.

11. N.R. Kumarage, C. Jayasinghe, K.P.H. Perera, Overview of Permeable paving systems and selection of the ideal paving system for home gardens, ICSBE 2022, Kandy, Sri Lanka.

12. Gurupatham S.V., Jayasinghe,C. & Perera, P, Ranking of walling materials using eco-efficiency for tropical climatic conditions: A survey based approach, Energy and Buildings, Volume 253, 15 December 2021, 111503.

13. Platt, S.L. Ranasinghe, G., Jayathilaka, H.A.D.G.S., Jayasinghe C., Jayasinghe M.T.R, Walker, P. & Maskell, D., Retrofitting and Rehabilitation of Vernacular housing in Flood Prone Areas in Sri Lanka, Journal of Building Engineering, 2021, https://doi.org/10.1016/j.jobe.2021.102420

14. Platt, S. L., Ranasinghe, G., Jayathilaka, H. A. D. G. S., Jayasinghe, C., Jayasinghe, M. T. R., Walker, P., & Maskell, D. (2021). Retrofitting and Rehabilitation of Vernacular

housing in Flood Prone Areas in Sri Lanka. Journal of Building Engineering, 102420. (https://doi.org/10.1016/j.jobe.2021.102420)

15. Shawn L. Platt, Indunil Erandi, Chintha Jayasinghe, Thishan Jayasinghe, Daniel Maskell, Gihan Ranasinghe, Peter Walker, "Improving the lateral load resistance of vernacular masonry walls subject to flooding", Proceedings of the Institution of Civil Engineers - Construction Materials, pp 1-12, published online: July 24, 2020.

16. K.P.I. E. Ariyaratne, C. Jayasinghe, M.T.R. Jayasinghe, P. Walker, "Assessment of Seismic Performance of Earth Masonry with Shaking Table Tests and Finite Element Modelling", Masonry International, MI Journal Article, Volume 32, 2020.

17. K.P.I.E. Ariyaratne, Chintha Jayasinghe, M.T.R. Jayasinghe and Pete Walker, "Alternative Methods in Numerical Modelling of Earth Masonry", Earthen Dwellings and Structures, Current status in their adoption, Springer Transactions in Civil and Environmental Engineering, ISBN 978-981-13-5883-8 (eBook), https://doi.org/10.1007/978-981-13-5883-8, pp 305 -318, 2019.

18. Inayath Kharoti, Pete Walker and Chintha Jayasinghe, Durability of Rammed Earth: A Comparative study of Spray Erosion Testing and Natural Weathering, Earthen Dwellings and Structures, Current status in their adoption, Springer Transactions in Civil and Environmental Engineering, ISBN 978-981-13-5883-8 (eBook), https://doi.org/10.1007/978-981-13-5883-8, pp 319 - 332, 2019.

19. S.A.S.L. Sumanasekara and C. Jayasinghe, "Alternative Techniques to Improve Indoor Environmental Quality", Journal of Green Building, Sept 2018, Vol. 13, No. 4 (Fall 2018),pp19-38.

20. C. Jayasinghe, MTR Jayasinghe, B. Dissanayake, D. Jayathilake, "Use of Recycled Building Demolition Waste in Stabilized Rammed Earth", *Masonry International*, Journal of the International Masonry Society, Vol 31, No 1. 1–32, pp17-26, 2018.

21. M.T.R. Jayasinghe,C. Jayasinghe, K.K.G.K.D. Kariyawasam, L.I.N. De Silva, "Semi tiered housing for lateriete earth sloping lands – A sustainable soloution with alternative materials and methods", Journal of Green Building, Volume 13, Issue 1,Winter 2018, pages 56-72.

22. D.M.K. W. Dissanayake, C. Jayasinghe, M.T.R. Jayasinghe, "A comparative embodied energy analysis of a house with recycled expanded polystyrene (EPS) based foam concrete wall panels", Energy and Buildings, Volume 135, 15 January 2017, pages 85 – 94.

23. P.L.N.Fernando,M.T.R.Jayasinghe.,C.Jayasinghe, "Structural feasibility of Expanded Polystyrene (EPS) based lightweight concrete sandwich wall panels", The Journal of Construction and Building Materials, Volume 139, 15 May 2017, Pages 45-51.

24. Kariyawasam K.K.G.K.D., Jayasinghe C., "Cement stabilized rammed earth as a sustainable construction material", *Journal of Construction and Building Materials*, Vol 105, 2016, pp.519-27.

25. Jayasinghe C., Fonseka W.M.C.D.J., Abeygunawardhene Y.M., "Load bearing properties of composite masonry constructed with recycled building demolition waste and cement stabilized rammed earth"', *Journal of Construction and Building Materials*, Vol 102, No 1, 2016 pp.471-77.

26. Dissanayake D.M.K.W., Jayasinghe C., "Embodied Energy Analysis of a Pre-cast Building System", 6th International Conference on Structural Engineering and Construction Management, Kandy, Sri Lanka 2015.

27. Kariyawasm K.K.G.K.D., Jayasinghe M.T.R., Jayasinghe C., "Strategies for Planning Mould Free Air Conditioned Buildings in Tropical Climates", 6th International Conference on Structural Engineering and Construction Management, Kandy, Sri Lanka 2015.

28. Fernando P.L.N., Jayasinghe C., "Structural Feasibility of a Pre-Cast Building System", 6th International Conference on Structural Engineering and Construction Management, Kandy, Sri Lanka

29. Jayasinghe C., Perera T.M., 2015. Dispersion Model for TVOC Emissions from Solvent based paints. International Journal of Civil Engineering , Vol 4, Issue 2, pp.45-56.

30. Jayasinghe C., Perera T.M., "Effect of chemicals used in building operation on indoor air quality" (IAQ) -SBE 240", International conference on sustainable built environments, Kandy , Sri Lanka 2014.

31. Premachandra R., Nayantha KHD, Jayasinghe C., "Investigation on micro-climatic features affecting the indoor air quality in suburbs" -SBE 241, International conference on sustainable built environments, Kandy, Sri Lanka 2014.

32. Perera T.M., Jayasighe C. Perera SAS, "Dispersion of pollutants in an enclosed room: A case study on air freshener", International conference on Structural Engineering and Construction Management, Kandy , Sri Lanka, December 2013.

33. Wijewickrama W., Jayasinghe C., Perera TM, "Developing a dispersion model for indoor VOC for enamel paints", International conference on Structural Engineering and Construction Management, Kandy , Sri Lanka, December 2013.

34. Gunaratne S.,Gunatilake D., Madushanka R., Jayasinghe C., Perera SAS, Rajapaksa S.W. Perera M., "Effect of the Activities inside a hospital theatre on its IAQ", International conference on Structural Engineering and Construction Management, Kandy , Sri Lanka, December 2013.

35. Naayntha D., Jayasinghe C., "Vertical Dispersion of the air pollutants of indoor environment in urban areas", International conference on Structural Engineering and Construction Management, Kandy , Sri Lanka, December 2013.

36. Jayasinghe C., Kandamby TC,"Stabilized rammed earth wall junctions for load bearing construction", Masonry International, Spring 2013, Vol 26, No. 1, 1-26.

37. Jayasinghe C., Batagoda J., "The effect of building planning aspects on indoor air quality", International Journal of Civil Engineering, International Academy of Science, Engineering and Technology, Vol 2 , Issue 2, May 2013, pp 9-28.

38. Jayasinghe C. , Perera S.A.S., Rajapakshe S.W., Perera T.M., "Measurement and analysis of concentrations of volatile organic compounds in a newly painted room", International conference on sustainable built environments, Kandy , Sri Lanka 2012

39. Perera S. A. S., Jayasinghe C., Gunaratne W. D. S. P., Gunatilake M.M.D.V., Madushanka H. K. R., Perera T.M. **"**Measurement and analysis of indoor air pollutants in a room sprayed with a locally manufactured air freshener**",** International conference on sustainable built environments, Kandy , Sri Lanka 2012.

40. Kasuni Liyanage, Amali Jayathilake, Thilini Kumari, Chintha Jayasinghe, SMA Nanayakkara, " Strength parameters of compressed stabilized earth blocks using furnace bottom ash as a cement replacement", International conference on sustainable built environments, Kandy , Sri Lanka 2012.

41. Perera T.M., Jayasinghe C., Perera S.A.S., Rajapaksa S.W., "Indoor Air Quality and human activities in buildings", Civil Engineering Research Exchange Symposium, University of Ruhuna, Galle, Sri Lanka, 2nd July 2012.

42. Jayasinghe M.T.R., Jayasinghe C., Lokuge S.N.D., Samaraweera T.M.A.D., Vithana B.M.K., "Cost effective housing with modular forms", Civil Engineering Research Exchange Symposium, University of Ruhuna, Galle, Sri Lanka, 2nd July 2012.

43. Sanduni Gunarathna, Danushika Gunatilake, Rumesh Madushanka, Manori Perera, Chinta Jayasinghe, Anul Perera, Samadhi Rajapaksa," Indoor Air Quality(IAQ) Inside a Hospital Theatre", Civil Engineering Research for Industry Symposium, University of Moratuwa,2012

44. Perera TM, Jayasinghe C., Perera SAS, Rajapaksa SW, "Effect of operational practices and indoor air quality", 5th National Symposium on Air Resource Management in Sri Lanka, 11th May 2012.

45. Jayasinghe C., "Embodied energy of alternative building materials and their impact on life cycle cost parameters", International conference on Structural Engineering at Kandy, Sri Lanka in December 2011.

46. Suganya Paskaran, Manori Perea, Dhanushka Kumara, Thishan Jayasinghe, Chintha Jayasingeh, Sujeewa Lewangama, " study on the cracks developed in Dematamal

Viharaya, Uva Province, Sri Lanka, International conference on Structural Engineering at Kandy, Sri Lanka in December 2011.

47. Kandamby T., Jayasinghe C., "Cement Stabilsied Rammed Earth for Wall junctions of two storey houses", Symposium on Civil Engineering Research for Industry – 2011 Dedicated to Prof. S.R.De S. Chandrakeerthy, Decmber 20, 2011.

48. Arandara K.P., Jayasinghe C., Jaysinghe, M.T.R., "Evaporative cooling for occupational health in trpoical climates" Symposium on Civil Engineering Research for Industry – 2011 Dedicated to Prof. S.R.De S. Chandrakeerthy, Decmber 20, 2011

49. S. Kumara, S.W. Rajapaksa, SAS Perera, C. Jayasinghe, " The effect on ventilation on sick building syndrome", International conference on Structural Engineering at Kandy, Sri Lanka in December 2011.

50. Jayasinghe C., T.S. Pathirage, K.R.T.I. Perera, C. Kariyapperuma, "Influence of height to width ratio of compressed stabilized earth blocks on wall strengths", Journal of the International Masonry Society, *Masonry International*, Vol.24, No. 02, 2011.

51. Jayasinghe C., "Sustainable Construction for Disaster Recovery", Joint International Symposium on Social Management Systems, Institution of Engineers Sri Lanka and Society for Social Management Systems, September 2011, Colombo, Sri Lanka.

52. Sribanurekha V, S.N.Wijerathne Wijepala L.H.S, Jayasinghe C., "Influence of different ventilation design on indoor CO_2 concentration", International conference on disaster resilience at Kandalama, Sri Lanaka, July 2011.

53. R. S. Mallawaarachchi1, C. Jayasinghe, and M. T. R. Jayasinghe, "Strategies to enhance the cyclone resistance of single storey houses with improved sustainability", SAITM Research Symposium on Engineering Advancements, Colombo, Sri Lanka, 2011

54. Bataagoda J.H., Jayasinghe C., "Effect of building ventilation on indoor environment", International Conference on Sustainable Built Environment, December 2010, Kandy, Sri Lanka.pp 397-406.

55. Batagoda J.H., Jayasinghe C., "Demand control ventilation and Sri Lankan application case study", International Conference on Sustainable Built Environment, December 2010, Kandy, Sri Lanka.pp 407-416.

56. Jayasinghe C., T.S. Pathirage, K.R.T.I. Perera, C. Kariyapperuma, "Effect of dimensional variation of CSE blocks", International Conference on Sustainable Built Environment, December 2010, Kandy, Sri Lanka.pp 233-241.

57. Jayasinghe C. , MTR Jayasinghe, K.P. Arandara, "Sustainable road construction with compressed stabilized earth", International Conference on Sustainable Built Environment, December 2010, Kandy, Sri Lanka .pp 250-256

58. Jayasinghe C., Mallawaarachchi R.S., Flexural strength of compressed stabilised earth masonry materials, *Materials and Design*, Elsevier, (2009), doi: 10,1016/j.matdes.2009.02/1.029.

59. Jayasinghe C., Mallawaarachchi R.S., Quantification of Lateral load enhancement potential of masonry walls using tie beams, *Masonry International*, The British Masonry Society, United Kingdom, 2008

60. Jayasinghe C., Konthesinghe K.M.C., Effect of Tie beams on Lateral strength of Masonry, Transactions , 2008, Institution of Engineers, Sri Lanka.

61. Jayasinghe C., Lakmali H.D.D., Rohitha M.P., Comparative performance of Masonry bond patterns, Transactions , 2008, Institution of Engineers, Sri Lanka.

62. Arandara K.P., Jayasinghe C., Surface Coatings for stabilised earth walls, Transactions , 2008, Institution of Engineers, Sri Lanka.

63. R.S Mallawaarachchi., C. Jayasinghe, The effects of Cyclones, Tsunami and Earthquakes on built environments and strategies for reduced damage, Journal of National Science Foundation, Sri Lanka, 2008, 36 (1), pp 03 – 14.

64. Jayasinghe C., Influence of bond patterns on cement stabilised earth brick and block walls, Masonry International *Masonry International*, The British Masonry Society, United Kingdom, Vol. 20, No.3, 91-150-2007.

65. Konthesingha KMC , Jayasinghe C , Nanayakkara SMA, Bond and Compressive strength of Masonry for locally available bricks, *Engineer*, October 2007, Journal of Institution of Engineers, Sri Lanka.

66. K. P. Arandara , C. Jayasinghe , Identification of Durability Problems in Earth Buildings *Engineer*, July 2007, Journal of Institute of Engineers, Sri Lanka

67. Jayasinhe C., Kamaladasa N., Compressive strength characteristics of cement stabilized rammed earth walls, Construction and Building Materials, 21 (11), p.1971-1976, Elsevier, Nov 2007

68. Jayasinghe C., Comparative performance of burnt clay bricks and compressed stabilized earth bricks and bonds, *Engineer*, July 2007, Journal of Institute of Engineers, Sri Lanka.

69. Jayasinghe C., Different masonry units manufactured with stabilized earth, Proceedings-International Symposium on Earthen Structures (ISES – 2007), 22- 24th August 2007, IISc, Bangalore, India (in collaboration with University of Bath, United Kingdom).

70. Jayasinghe C., Shrinkage characteristics of cement stabilised rammed earth, Proceedings- International Symposium on Earthen Structures (ISES – 2007), 22- 24th August 2007, IISc, Bangalore, India (in collaboration with University of Bath, United Kingdom).

71. Jayasinghe C., Sustainable construction for disaster recovery, Proceedings – International Conference on "Mitigation of the risk of natural hazards, 27th and 28th March, 2007, University of Peradeniya, Sri Lanka.

72. Mallawaarachchi R.S., Jayasinghe C., Strategies for enhanced disaster resistance of commonly used building materials, , Proceedings – International Conference on "Mitigation of the risk of natural hazards, 27th and 28th March, 2007, University of Peradeniya, Sri Lanka.

73. Mallawaarachchi, R.S., Jayasinghe, C., Jayasinghe, M.T.R., An integrated approach for disaster resistant elevated houses for Tsunami affected areas, Proceedings – International Conference on "Mitigation of the risk of natural hazards, 27th and 28th March, 2007, University of Peradeniya, Sri Lanka.

74. Jayasinghe C., Mallawaarachchi R. S., Overall assessment of stabilized rammed earth as a walling material, Proceedings - World Conference on Accelerating Excellence in Built Environment, 2-4 th October 2006, Birmingham, United Kingdom.

75. C. Jayasinghe, MHPJ De. Silva, DMMP Dissanayake, CTKI . Fernando, Engineering Properties of Micro Concrete Roofing Tiles, *Engineer*, Journal of Institution of Engineers Sri Lanka, Vol. xxxix No.3, July 2006.

76. Jayasinghe C., Kamaladasa N., Structural Properties of cement stabilized rammed earth, *Engineer*, Journal of Institute of Engineers, Sri Lanka, July 2005.

77. Jayasinghe C**.,** Perera AADAJ, West S., The application of hand moulded stabilsied earth blocks for rural houses in Sri Lanka, EarthBuild 2005, International Earth Building Conference, Sydney, Asutralia, January 2005.

78. N. Kamaladasa, C. Jayasinghe , Development of an efficient construction Technique for Rammed Earth, .*Transactions*, Institution of Engineers, 2005.

79. C. Jayasinghe[1], M T R Jayasinghe[1], D H S Illangakoon[1], P K Gunawardane[1], E A N S Edirisinghe[1], Hand moulded chip concrete tiles, Transactions, Institute of Engineers, Sri Lanka, October 2004.

80. Perera, A., Jayasinghe C., "Strength characteristics and structural design methods for compressed earth block walls", *Masonry International*, The British Masonry Society, United Kingdom, January, 2003.

81. Jayasinghe, C., Perera, A. A. D. A. J., "Alternative Building materials and structural systems for the housing and building sectors", 2003, SASBE 2003 conference, Brisbane, Australia, Nov. 2003.
82. Siriwardane, P. A., Jayasinghe, C., Ratnayake, L. L., "Analysis of Pedestrian involvement in road accidents", *Engineer,* Journal of Institution of Engineers, Sri Lanka, 2003.
83. Jayasinghe, C., Ratnayake, L. L., "Prioritising the Road Safety Programme", *Indian Journal of Transport Management*, India, 2003.
84. Ratnayake, L. L., Jayasinghe, C., "Traffic accident cost analysis", *Engineer, Journal of Institution of Engineers*, Sri Lanka, Vol:XXXIV, No: 03, September 2001, pp 61-72.
85. Jayasinghe, C., Perera, A. A. D. A. J, "Hand moulded cement stabilised soil blocks as a walling material", *Tranactions-2001*, Institution of Engineers, Sri Lanka, pp 186-194.
86. Jayasinghe, C., Perera, A. A. D. A. J., "Alternative concrete floor slab system for residential buildings", *Engineer, Journal of Institution of Engineers*, Sri Lanka, Vol:XXXIII, No: 02, September 2000, pp 54 -65.
87. Jayasinghe, C., Perera, A. A. D. A. J., Jayasinghe, M. T. R., "Precast reinforced concrete beam slab bridges for small spans", *Transactions – 2000*, Institution of Engineers, Sri Lanka, pp 74 –85.
88. Jayasinghe, C., Perera, A. A. D. A. J., "Load testing on reinforced precast slab system for residential buildings", *Transactions – 2000*, Institution of Engineers, Sri Lanka, pp 96 – 106.
89. Ratnayake, L. L., Jayasinghe, C., "Pedestrian safety: Current situation and Improvements", *Transactions – 2000*, Institution of Engineers, Sri Lanka, pp 107 –120.
90. Jayasinghe, C, Perera, A. A. D. A. J, "Studies on load bearing characteristics of cement stabilised soil blocks" *Transactions – 1999*, Institution of Engineers, Sri Lanka, pp 96 – 106.
91. Jayasinghe, C., Perera, A. A. D. A. J., "Stabilised soil block technology for Sri Lanka", *Annual Symposium*, Engineering Research Unit, University of Moratuwa, Sri Lanka, 1999 , pp 147-160.
92. Ratnayake, L. L., Jayasinghe, C., "Design techniques for roundabouts in Sri Lanka", *Engineer, Journal of Institute of Engineers, Sri Lanka*, Vol:XXViii, August 1998, No: 2, pp 13-23.
93. Ranaweera, R. P. K. S., Jayasinghe, C., Ratnayake, L. L., "Speed reduction as a road safety measure", *Annual Symposium*, Engineering Research Unit, University of Moratuwa, Sri Lanka, 2001 , pp 34-45.

94. Jayasinghe, C., Perera, A. A. D. A. J., "Strength characteristics of manually compacted soil stabilised blockwork", *Annual Sessions-2001*, Sri Lanka Association for the Advancement of Science.

95. Jayasinghe, C., Ratnayake, L. L., "Unprotected Road users and Road safety improvements", *Annual Sessions-2001*, Sri Lanka Association for the Advancement of Science.

96. Jayasinghe, C., Ratnayake, L. L., Ranaweera, R. P. K. S., "Improvement of Road safety at T-Junctions", *Annual Sessions-2001*, Sri Lanka Association for the Advancement of Science.

TEXT BOOKS

1. The book on "**Structural Design of Earth Buildings**", published in collaboration with Eco Ceylon Limited, Sri Lanka, 119 pages, 2009. (ISBN 978-955-51805-0-4).
   This book covers the structural performance of compressed stabilized earth masonry, design methodology with examples, prevention of cracks and lateral load resistant construction with load-bearing earth bricks, blocks and rammed earth walls. This book can be used as a course text for the B.Sc. Engineering Level 3 and Level 4 students. It would also be a valuable text book for the students of M.Eng. on Structural Engineering Design.

2. The book entitled "**Sustainable design of Built Environments**, published in collaboration with Eco Ceylon Limited, 116 pages, 2009 (ISBN 978 – 955 – 51805 – 1-1).
   This book is recommended as supplementary reading material for engineers and architects and also the students of B.Sc. Engineering programme.

KEY NOTE SPEECHES AND ORATIONS

1. Dr. A.N.S. Kulasinghe Oration at Institution of Engineers Sri Lanka, 26th October 2023
2. Key note speech at 6th International Conference on Advances in Energy and Environment Research, ICAEER 10 – 12th September 2021, Shanghai, China.
3. Key note speech at 11th International Conference on Sustainable Built Environment 2020, Kandy, Sri Lanka.

CONTRIBUTIONS TO NATIONAL DEVELOPMENT

- Preparation of Green rating system for Government buildings in collaboration with Urban Development Authority (UDA) Sri Lanka

- Developed Green labelling framework for building materials in collaboration with Construction Industry Development Authority (CIDA)
- A member of the Design team for the LEED platinum rated factory (Thutulie). It claims to be the world's first clothing factory powered solely by carbon-neutral sources (*https://www.scribd.com/document/393998162/Thurulie-Clothing-factory-Sri-Lanka-pdf).*

- Introduced construction waste as a building material in collaboration with National Building Research Organization.
- Cement stabilized rammed and compressed stabilized earth sustainable materials were introduced after a comprehensive research programme with international collaborations.
- Carried out detailed research on alternative building materials including compressed straw panels (durra), micro concrete roofing tiles, chipped concrete roofing tiles and precast building systems which resulted in widespread use of such sustainable materials in large projects. The outcome of the research paved the way to obtain the government approvals for such materials.
- Drafting the Sri Lanka Standards (SLS) for Compressed Stabilized Earth Blocks (CSEB) (Parts 1, 2, and 3)
- Working as a member of the SLS Institute working group for CSEB
- Member of the standing committee on Engineering and Architecture at National Science Foundation Sri Lanka
- Member of Post graduate research Standing committee of University Grants Commission, Sri Lanka
- Technology transfer through various Conferences, Symposia
- Technology transfer and awareness through media programmes;
    - Sri Lanka television News item on 1st June 2012 on the subject air conditioned environment and indoor comfort
    - *"Nugasewana" A* television programme, on Sick Building Syndrome (27th June 2012)

RESEARCH GRANTS OBTAINED

Received Overseas Special Training Programme (OSTP) fellowship in June 2017 for

GBP £ 5750.

Title	Funding source	Amount	Outcome
Energy Catalyst Round10, Research fund,	Innovate UK 2023 (Awarded in September 2023)	GBP £ 55,000 (UOM component)	On-going
Safer communities with natural hazard resilient housing"	Global Challenges Research Fund allocation for 2018/2019 in collaboration with University of Bath, UK and NBRO Sri Lanka	GBP £ 50,000	Refuge Space in the Model House in Bulathsinghala
Enhanced Earth based building materials network for housing targeted the low income population (Earth4Nest)	Global Challenges Research Fund Networking Grant United Kingdom (2018) in collaboration with University of Bath, UK	GBP £ 25,000	Workshop in Sri Lanka for networking, ICSBE, Kandy 2019
Safer communities with hydro-meteorological disaster resilient houses	the Royal Society Challenge Grant CHG\R1\170062 (2017) in collaboration with University of Bath, UK	GBP £ 100,000	Two Masters Projects A Model House
An innovative building system and sustainable concepts	National Building Research Organization (2015)	Rs. 2,000,000	3 Master's and five publications
Reuse of building waste as a construction material	National Building Research Organization (2014)	Rs. 1,000,000	1 Master's degree and two publication
Effect of micro climate on indoor environment	Senate Research Committee (2012)	Rs. 1,000,000	1 MPhil degree and two publication
Building planning aspects and indoor air quality	Senate Research Committee (2012-2016)	Rs. 1,500,000	1 PhD(in progress), 5 publications
Development of disaster resistant built environments with commonly used building materials in Sri Lanka	National Science Foundation, Sri Lanka (2005 -2009)	Rs 876,000/=	1 PhD and seven publications
Durability properties of earth buildings	National Science Foundation, Sri Lanka (2006-2007)	Rs 350,000/=	1 Master's degree, 2 publications
Enhancement of lateral load resistance of residential buildings constructed with load bearing masonry	Senate Research committee (2006 -2007)	Rs 275,000/=	Produced a MSc Two publications
Indoor air quality and building planning aspects	National Research Council, Sri Lanka (2007-2009)	Rs 345,000/=	MSc student, equipment, one news paper article

Indoor environment in residential buildings and planning aspects	Senate Research committee (2008 -2009)	Rs.335,000/=	MSc student, one news paper article
Effect of micro climate on indoor air quality	Senate Research committee (2009)	Rs 125,000/=	One publication
Effects of different bond patterns used for brick work on the indoor thermal performance	Senate Research committee (2007 -2008)	Rs 75,000/=	One publication
Flexural strength of different types of earth masonry	Senate Research committee (2008 -2009)	Rs 75,000/=	One publication
Comparison of masonry walls constructed with different bond patterns	Senate Research committee (2006 -2007)	Rs 75,000/=	Three publications
Building planning aspects and indoor environment –jointly with Dr. I. Rajapaksha of Faculty of Architecture	Senate Research committee (2005 -2006)	Rs 20,000/=	Three abstracted papers at Air Mac Seminar
Development of Life cycle cost models for alternative building materials	Senate Research Committee (2004-2005)	Rs 50,000/=	One paper, One monograph
Comparison of Indoor air quality in naturally ventilated and air conditioned offices – jointly with Dr. I. Rajapaksha	Senate Research Committee (2005 – 2006)	Rs 50,000/=	Three abstracts in Air Mac Seminar

SUMMARY OF SKILLS AND EXPERIENCE:

- Experience in research, development and publishing in the areas of alternative construction materials, green building, cost effective house construction, indoor air quality, road safety, traffic accident analysis, accident costs and accident black spot improvements
- Conducting lectures and developing subject modules at undergraduate level in Sustainable Design, Building construction, Construction Technology, Building Materials, Principles of Architecture, Management skill development, Research Methods, Communication skill development and Comprehensive Design Project
- Experience in supervising research projects at undergraduate and postgraduate level
- Administrative skills in the capacity of Director, Postgraduate Studies, Faculty of Engineering, Acting Head of English Language Teaching Centre and Head, Division of Civil Engineering Technology of Institute of Technology of University of Moratuwa
- Worked out a research link programme between Lund University of Sweden and University of Moratuwa in the area of Road safety and Traffic Engineering
- Reviewer for several high end engineering journals including Construction and Building Materials, Materials and Design, Masonry International, Materials and Structures, Australian Civil Engineering Journal
- Drafted Sri Lanka Standards **SLS 1382** for Compressed Stabilized Earth Blocks

EDUCATIONAL QUALIFICATIONS:

2003	**Visiting Research Fellow, Queensland University of Technology, Australia**: Research on road safety of freight transport (ten months)
2000	**Visiting Researcher, Lund University, Sweden** Research exchange programme on Road safety at Department of Traffic Technology and Society (two months)
1996- 1999	**Ph.D., University of Moratuwa, Sri Lanka** The research is titled "Alternative Building Materials and Methods for Sri Lanka". This project was aimed at developing environmentally friendly cement stabilised soil block walling materials and slab systems that can be used for residential buildings.
1994 - 1996	**M.Eng. in Highway and Traffic Engineering, University of Moratuwa, Sri Lanka**. M. Eng. research project was titled "Roundabout Design Techniques for Sri Lanka". This project was aimed at establishing roundabout design techniques which would minimise delays and also improve the safety for both vehicles and pedestrians. P.G.Diploma research project was titled "Traffic and Parking Management within Moratuwa City Limits". This project was aimed at improving safety in a busy stretch of Colombo - Galle road by using traffic and parking management measures. Findings of both these projects were implemented for roundabout design in Colombo by Road Development Authority.
1985-1990	**B.Sc. Engineering Honours in Civil Engineering, University of Moratuwa, Sri Lanka** Subjects: Structural Design (design of steel, reinforced and pre-stressed concrete, masonry and timber structures), Structural Analysis, Surveying and Highway Engineering, Geotechnical Engineering, Hydraulic Engineering, Irrigation Engineering, Construction Management, Civil Engineering Construction and Industrial Economics and Management.

PROFESSIONAL EXPERIENCE:

September 2017 to date	**Senior Professor – Department of Civil Engineering, University of Moratuwa, Sri Lanka** Conduct teaching for B, Sc Engineering undergraduate course and Post graduate courses in the Department. Conduct research at Undergraduate and Post graduate level
August 2019	**Visiting Academic** – **Department of Architecture and Civil Engineering, University of Bath, United Kingdom** Conducted experimental work and collaborative research on flood resilient housing and durability of earthen buildings for better living targeting low income communities in Sri Lanka

March 2019 **Visiting Academic, Department of Civil Engineering, University of Liverpool, United Kingdom**
Conducted lectures on Green Building, Indoor Environment and Earthen structures.

March 2018 –May 2018 **Visiting Academic, Department of Civil Engineering, Queensland University of Technology, Australia**
Explored the research collaborations in the areas of construction materials, Fire resistance of partition and ceiling materials.

June2017 – Aug 2017 **Visiting Academic – Department of Architecture and Civil Engineering, University of Bath, United Kingdom.**

- Initiated research collaborations in the area of alternative building material
- Green wall system and occupant comfort
- Sol- gel technology to improve strength and durability of Compressed stabilised earth blocks and rammed earth

Feb.2012 – May 2017 **Director – Postgraduate Studies**, Faculty of Engineering, University of Moratuwa

- During my leadership of postgraduate research degrees, publication requirement was made mandatory and several other improvements to the by-laws of PhD, MPhil and MSc degrees were formulated and implemented.
- Postgraduate Board of Studies was set up to monitor the progress and to maintain the quality of the postgraduate taught courses.

Sept.2009 –to date **Professor** - Department of Civil Engineering, University of Moratuwa

- As the coordinator of the final year design project, it was made a comprehensive multifaceted project where the students were given a thorough exposure to mega projects including high rise buildings, long span bridges, road projects and community based projects.
- Identifying the need of presenting the outcomes of projects, a subject module on Communication Skill Development was introduced and developed for the final year B.Sc. Engineering undergraduates.
- A course module on sustainable design and construction was introduced and developed for the final year of the B.Sc. Engineering course.
- Course modules on sustainable design, research methodology and communication skills for engineers are conducted for the Masters course in Project Management.
- Introduced and implemented outcome based education system for the B.Sc. engineering course as a part of the Washington Accord Accreditation process.

2009 to date **Consultant- Green building and sustainable design of built environment**

- Worked as a member of the design team of the *first lead platinum rated factory in the world* which is a clothing factory powered by carbon neutral sources. I was mainly responsible for the material and resources used in the construction and to maintain comfort levels in the indoor environment.
- Developed several green building materials including compressed stabilized Earth Blocks (CSEB), stabilized rammed earth, precast slab system, micro concrete roofing tiles, building waste (reuse) as a construction material, compressed straw boards and precast building systems. Further, guidelines for better indoor environments in terms of air quality and thermal comfort were developed in several building projects.

Jan 2004 - Sept.2009 **Senior Lecturer –** Department of Civil Engineering, University of Moratuwa, Sri Lanka.

- Conducted lectures in Construction Technology, Building Construction, Building Materials, Principles of Architecture, Building Planning and Management Skill Development for the B.Sc Engineering undergraduates.
- Supervised a number of undergraduate research projects on the development of cost effective alternative building materials, thermal comfort, masonry design and construction.
- Took lectures in Research Methods and Communication skill development for the post graduate students.

Nov 2000- Mar 2003 **Head of the Division and Senior Lecturer**, Division of Civil Engineering Technology, Institute of Technology, University of Moratuwa, Sri Lanka.

- Conducted lectures in Construction Processes & Planning, Building construction, Principles of Architecture and Building Planning for the B.Sc Engineering undergraduates.
- Carried out research on new building materials, cost effective construction, road safety and traffic engineering.
- Served as a member of the Board of Management of the Road Safety Research and Monitoring Centre of University of Moratuwa.
- Worked out a research link in the area of Road safety between the Lund University of Sweden and University of Moratuwa.

Nov 1997 –Dec 2004 **Consultant-Traffic Engineer (Road safety research and monitoring centre- University of Moratuwa)**, National Road Safety Secretariat, Ministry of Highways and Transport, Sri Lanka jointly with Swe Road International Consultants.

- Worked as the Principal researcher in a team consists of Sri Lankans and Swedish professionals. This research includes accident cost studies, pedestrian behaviour studies, safety improvement measures at a number of accident black spots, design of traffic lights, roundabouts and overall safety improvement measures at some congested junctions.

- The work carried out under the above collaboration included following projects which are funded by Asian Development Bank:
  - Prioritising road safety programme
  - Collision type analysis and countermeasures
  - Accident severity and Equivalent Accident Numbers
  - Accident Costs and the Impact to the National economy
  - Accident analysis and mitigation measures
  - Research on Pedestrian behaviour and safety improvements
  - Black-spot identification programme. Research on definition of accident black spots in Sri Lanka and prioritising those for the safety improvements
  - Research on Driver Training & behavioural studies
  - Research on bus transport- current situation and improvements
  - Accident analysis for different collision types
  - Safety improvement on Moratuwa Egoda-Uyana Bypass road
  - Traffic signal design changes at Bullers Road - Duplication Road junction, Moratuwa Station Road junction
  - Roundabout design and junction improvement at Double bends, Nalluruwa, Panadura on Colombo – Galle road.
  - Research on seat belt wearing
  - Designing road safety educational campaigns

Apr2000-Nov2000 **Senior Lecturer,** Department of Civil Engineering, University of Moratuwa

- Conducted lectures in Construction Processes & Planning for the B.Sc Engineering undergraduates
- Introduced computer aided drafting in Building planning and effective presentation tools to the undergraduates.

July 1999-Mar 2000 **Senior Lecturer -** Department of Civil and Environmental Engineering, Faculty of Engineering, University of Ruhuna.

- Participated in preparing the curriculum and syllabi for the Civil and Environmental Engineering for the B.Sc Engineering degree course which was established in the year 1999.
- Setting up of Civil Engineering laboratories and ordering library books for the new faculty.

July 1995-Mar 1999 **Post graduate research assistant** in Department of Civil Engineering

The research for Ph.D. was conducted. The research title was "Alternative Building Materials for Sri Lanka" which dealt with cement stabilised soil block walls and a cost effective reinforced concrete slab system.

May 1993-Dec 1996 **Visiting Lecturer, University of Moratuwa:**

- Conducted lectures at Department of Building Economics for the degree course, in Civil Engineering Construction (first year, second year and third year) and Building Services Engineering (first year, second year).
- Conducted lectures in Structural Engineering for Architecture students.

May 1994- July 1995 **Research Engineer, University of Moratuwa:**

- Worked as a research engineer in a project on low cost housing funded by German Appropriate Technology Exchange (GATE). The use of soil stabilisation techniques for different soil types available in Sri Lanka was investigated extensively.
- Design data for structural design of houses using cement stabilised soil blocks was established by conducting a comprehensive experimental programme. The use of different mortar types and low cost plasters for the cost effective houses have also been investigated.
- Involved in the construction of model houses in different parts of Sri Lanka.

July 1992-May 1993 **Office Engineer, Link Engineering Ltd:**

- Project management work that included project monitoring, project re-scheduling, preparation of cash flow and material schedules, labour and material management.
- Computerised the above work and gained experience in preparing pre-qualifications and tender documents.

Aug 1990-Mar1992 **Assistant Structural Design Engineer, Department of Transportation, Cambridgeshire County Council, Cambridge, United Kingdom:**

- As a member of a structural design team, I was responsible for the complete design of a five span precast pre-stressed concrete

composite continuous bridge and substructure design for a two span composite bridge with piled foundations. These structures were analysed using 2D and 3D structural analytical packages. A feasibility study on the use of reinforced earth retaining walls for the approaches of above bridges was undertaken.

- Worked as the in-house check engineer for an arch bridge refurbished in 1991.
- Set up of the databases for Department of Transportation bridge assessment programme covering all the bridges in Cambridgeshire.
- Also carried out computer aided monitoring for human and financial resources. I have attended a number of courses conducted by the County Council for personal skill development.

COMPUTER SKILLS

- Conversant with 2D and 3D structural modelling and finite element packages
- Conversant with energy modelling packages.
- Extensively used MS office packages
- Familiar with computational dispersion modelling (air pollutant) software

PUBLIC LECTURES AT WORKSHOPS/SEMINARS

1. Presentation on Cement Stabilised soil blocks and cost effective house construction at Society of Structural Engineers, Sri Lanka, 2001.
2. Presentation on Earth Architecture and structural design aspects, Faculty of Architecture, University of Moratuwa, Sri Lanka, 2000.
3. Presentation of Cost effective housing with Pre-cast slab system and soil blocks, Southern Branch of Institution of Engineers, Sri Lanka, 1999.
4. Organized and conducted a workshop to transfer the technology on alternative building materials for the Engineers, Architects and contractors, 1999
5. Presentation on Prioritizing accident black-spot improvement programme at Centre for Accident Analysis and Road Safety (CAARS-Q), Queensland University of Technology, Australia, June 2003.
6. Alternative materials at Centre for Housing Planning and Building, Colombo, May 2004.
7. New materials for building construction at Sri Lanka Advancement of Science, September 2005.
8. Seminar for Potential House builders, organized by Holcim Lanka Ltd. In Colombo, September 2005.
9. Launching of Sri Lanka Standards Parts 1 and 2 for the Compressed Stabilised Earth blocks, December 2007.
10. Conducted a course on Communication skills development for the practicing engineers at Institution of Engineers, Sri Lanka, May 2011.
11. Lecture on Indoor Air Quality at the pre-conference workshop at University of Peradeniya Sri Lanka, September 2011.

12. Keynote speech at South Asian Institute on Technology, Engineering and Management Sri Lanka on Green Building, April 2012.
13. Public lecture on "Indoor Air Quality and Sick Building Syndrome", at Green Building Council Sri Lanka, August 2012.
14. Workshop on effects of indoor air quality at Green Building Council Sri Lanka, September 2012.
15. Workshop on Benefits of green built environments at Green Building Council Sri Lanka, September 2012.

SHORT COURSES ATTENDED

1. Concrete Bridge Deck Design Utilising Pre-cast Pre-stressed Beams, Conducted by Institution of Structural Engineers, London, June 1991.

2. Structural Design of High-rise Buildings, Conducted by Department of Civil Engineering, University of Moratuwa, November 1996.

3. Applications of High Performance Concrete for Tall Buildings, Conducted by Department of Civil Engineering, University of Moratuwa, Moratuwa, December 1996.

4. Design of large structures, conducted by Department of Civil Engineering, University of Moratuwa, December 2005.

5. Seminar on FIDIC contract documents, organized by Association of Consulting Engineers, Sri Lanka, March 2006.

INTERESTS

- Piano Music (Trinity College in pianoforte)
- Shakespearean drama
- Traditional dancing
- Sports: Badminton

I hereby certify that the above information is true and correct to the best of my knowledge.