

CURRICULUM VITAE - Professor W.P.S. DIAS

A. PERSONAL

Name: Professor WIRANJITH PRIYAN SOLOMON DIAS

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(Official) Dept. of Civil Engineering, University of Moratuwa, Moratuwa, Sri Lanka. (Tel. +94-11-2640051; Fax. +94-11-2650622; e-mail: priyan@uom.lk)

Date of Birth: 6th October, 1955. **Sex:** Male.

Nationality: Sri Lankan.

Civil Status: Married (Wife - Mrs. Ruth Shanthi Dias, nee' Thambar; Two sons, b. 1991 & 1994)

B. ACADEMIC AND PROFESSIONAL QUALIFICATIONS

1. BSc(Eng)(Hons.) - University of Sri Lanka, 1980.
2. **PhD - University of London, 1986.**
3. **DIC - Imperial College of Science & Technology, London, 1986.**
4. CEng, MIE(SL) - Corporate Membership of the Institution of Engineers, Sri Lanka, 1991.
5. **CEng, MStructE - Corporate Membership, Institution of Structural Engineers, U.K., 1994.**
6. **FIE(SL) - Fellowship of the Institution of Engineers, Sri Lanka, 1998.**
7. **FNAS(SL) – Fellowship of the National Academy of Sciences, Sri Lanka, 2007.**
8. FSSE(SL) – Fellowship of the Society of Structural Engineers, Sri Lanka.
9. Honorary Fellow, Society of Structural Engineers, Sri Lanka, 2019.
10. Honorary Life Fellow, Institution of Engineers, Sri Lanka, 2020.

Google Scholar data: h-index = 19; i-10 index = 42; citations = 1868 (as at 09/03/2021)

(link: <https://scholar.google.com/citations?user=XWnOhY8AAAAJ&hl=en&oi=ao>)

SCOPUS data: h-index = 14; i-10 index = 23; citations = 1075 (as at 09/03/2021)

C. POSITIONS HELD

December 2006 to date – **Senior Professor in Civil Engineering**, attached to the Division of Building & Structural Engineering, Department of Civil Engineering, University of Moratuwa, Moratuwa, Sri Lanka. (See below for description of work)

May 2014 to May 2017 – **Director, Office of Research, University of Moratuwa, Moratuwa, Sri Lanka**. Promotion of staff research and collaboration with external agencies.

November to December 2012 – Endeavour Executive Awardee at Department of Infrastructure Engineering, University of Melbourne (Study areas – sustainability, nanotechnology, vulnerability).

July 2011 – Visiting Research Fellow at Systems Centre, University of Bristol, U.K. (Study area – Systems thinking and approaches).

April 2011 – Alexander S. Onassis Fellow, based in Athens, Greece (Study area – Ancient Greek temples as analogical sources for Anaximander’s model of the cosmos).

June 2007 to June 2010 – **Head, Department of Civil Engineering, University of Moratuwa, Moratuwa, Sri Lanka**

December 1998 to December 2006 - Professor in Civil Engineering, attached to the Division of Building & Structural Engineering, Department of Civil Engineering, University of Moratuwa, Moratuwa, Sri Lanka. (See below for description of work). August 1999 to August 2000 and May 2001 to August 2006: Head, Division of Building and Structural Engineering.

August 2000 to April 2001 – **Visiting Research Fellow at the Institute for Complex Engineered Systems, Carnegie Mellon University, Pittsburgh, U.S.A.** (Research Areas – Philosophy of Engineering and Engineering Design)

June 1995 to December 1998 - Associate Professor in Civil Engineering, attached to the Division of Building & Structural Engineering, Department of Civil Engineering, University of Moratuwa, Moratuwa, Sri Lanka. (See below for description of work).

June 1986 to June 1995 - Senior Lecturer in Civil Engineering (Grade II from 1986-1992 and Grade I from 1992 to 1995), attached to the Division of Building & Structural Engineering, Department of Civil Engineering, University of Moratuwa, Moratuwa, Sri Lanka.

October 1992 to July 1993 - **Visiting Research Fellow in the Department of Civil Engineering, University of Bristol, Bristol, U.K.** (General Research Area - Civil Engineering Systems; Specific Research Areas - Conceptual modelling, Philosophy of Engineering).

Work (from June 1986 to date) has included

- Teaching undergraduate and postgraduate courses in Structural Engineering, i.e. (i) Design of Concrete Structures (undergraduate), (ii) Structural Mechanics & Analysis (undergraduate), (iii) Concrete Materials and Reinforced Concrete (postgraduate) and (iv) Design Methodology (postgraduate).
- Teaching undergraduate and postgraduate courses in aspects of Artificial Intelligence, i.e. (i) Artificial Neural Networks and Genetic Algorithms (undergraduate), (ii) Artificial Intelligence for Industry (postgraduate).
- Teaching undergraduate and postgraduate courses in (i) Philosophy of Science; (ii) Infrastructure & Society (on MBA program)
- Securing research grants and supervising research students.
- Consultancy in Materials testing, Structural investigations and Structural design, including co-ordination of consultancy services offered by the Building and Structural Engineering Division.
- Research in (i) Concrete Structures & Technology, (ii) Application of Artificial Intelligence Techniques in Civil Engineering, (iii) Philosophy of Engineering and (iv) Systems Thinking and Methods.

October 1982 to May 1986 - **Research Scholar at Imperial College of Science and Technology, University of London**, while on study leave from the University of Moratuwa. (General research area - Concrete Structures; Specific research topic - Thermal Creep of Hardened Cement Paste.)

April 1981 to September 1982 - Asst. Lecturer in Civil Engineering, University of Moratuwa, Sri Lanka. (Work included teaching undergraduate courses in Structural Engineering and Consultancy in Materials testing and Structural design.)

July 1978 to April, 1979 - Engineering Trainee with Department of Buildings, Sri Lanka, attached to a multistorey building construction site.

D. OTHER ACTIVITIES

D.1. Administrative Positions at University of Moratuwa

- Student Counsellor, 1986-1992.
- Chairman, Engineering Research Unit (ERU), Faculty of Engineering, 1997-2004; Convenor, ERU, 1990-92; and member 1994-2004.
- Chairman, University-Industry Interaction Cell, Faculty of Engineering, 2001 to 2007.
- Member, Senate Research Committee, 1998-2004 and from 2006 to date.
- Member, University of Moratuwa cricket team, 1987-91.
- Senior Treasurer of Student Christian Fellowship, 1986-2005.
- President of the University of Moratuwa Teachers' Association (UMTA) in 1995/96; Secretary in 1990/91; Member, Executive Committee 1989-92.
- Chairman, Engineering faculty sub-committee on the NDT Programme, October 1993 to April 1994.
- Task Force Leader and Co-ordinator for Quality Enhancement Fund Grant Application and Implementation (Rs 68 million over 4 years), World Bank Project on Improving Relevance & Quality of Undergraduate Education (IRQUE), 2004 to 2007.
- Co-Chair, University Committee on Awards, 2006 to 2014.
- Co-Chair, Senate Research Committee, 2015 to 2017.

D.2. Professional Roles outside University of Moratuwa

- Editor of Modulus, the newsletter of the Society of Structural Engineers - Sri Lanka, 1990/91, 1997 to 1998 and 2005; Committee member of the Society, 1990 to 1992, 1995 to 2000 and 2005.
- Member, University Grants Commission Task Force on Engineering Regional Colleges, 1990/91.
- Member, Council of the Institution of Engineers, Sri Lanka, 1991/92.
- Member, Sectoral Committee on Cement and Cement based Products, Sri Lanka Standards Institution, 1991-95.
- Visiting Lecturer, University of Colombo for course on Philosophy of Science, 1997.
- Member, Research Committee, National Building Research Organisation, 1998 to 2000; and from 2011 to date
- **Sri Lanka Representative, Institution of Structural Engineers, U.K., since 1998.**
- Member, International Committee for (Asian) Concrete Model Code, 1999-2001.
- Member, Conference Editorial Board, 5th, 6th, 7th, 8th Int. Conf. on the Application of Artificial Intelligence to Civil and Structural Engineering (Oxford 1999, Vienna 2001, Netherlands 2003, Rome 2005).
- Council Member, Sri Lanka Association for Artificial Intelligence as Chairman, Research Committee, 2002/03.
- Member, Joint Working Commission for Disaster Reduction on the Coasts of the Indian Ocean, 2005 to c.2012.
- **Member, National Research Council (appointed by H.E. President), 2005 to 2019.**
- Chairman, Advisory Committee on Development/Enforcement of Guidelines for Construction in Disaster Prone Areas, Disaster Management Centre, Sri Lanka, 2006 to c. 2014.
- Member, NASTEC Study Group on improving working conditions of scientists
- Chairman, NASTEC Study Group to Formulate a Mechanism to Evaluate Technology, 2005
- **Associate Editor, Civil Engineering and Environmental Systems, 2007 to date (Member, Editorial Board since 2005)**
- Member, Editorial Board, Journal of the National Science Foundation, 2012 to 2015.
- Associate Supervisor, Curtin University, Perth, Australia, 2012-2015.
- **Member, Council of National Academy of Sciences, Sri Lanka, 2013 to date (President 2020-2022)**

D.3. International Consultancy Assignments

- Report on Capacity generation of the Ministry of Construction & Public Works to assess structural safety of government buildings and other important infrastructure in the Republic of Maldives, October 2001.
- Development of an Inorganic Polymer Concrete Material for Walling Units, for Strongwall International Ltd, Australia, April 2003 to September 2003.
- **Design review and approval of Lotus Tower Project designs (Chinese design), functioning as Lead Structural Engineering Consultant for Project Consultancy Unit, University of Moratuwa, 2012 to date – involved computer modelling, design checking and site supervision.**
- Development of Asian Region Vulnerability Functions for the UNISDR Global Assessment Report 2015; member of Geoscience Australia team
[http://www.preventionweb.net/english/hyogo/gar/2015/en/bgdocs/risk-section/Geoscience%20Australia%20\(GA\).%20GAR15%20Regional%20Vulnerability%20Function%20Reporting%20on%20the%20Asian%20Regional%20Workshop.pdf](http://www.preventionweb.net/english/hyogo/gar/2015/en/bgdocs/risk-section/Geoscience%20Australia%20(GA).%20GAR15%20Regional%20Vulnerability%20Function%20Reporting%20on%20the%20Asian%20Regional%20Workshop.pdf)
- World Bank study on Flood Risk Assessment for Colombo Metropolitan Region, 2016-17 – responsible for developing damage curves for buildings and infrastructure.
- **World Bank study on Building Regulatory Capacity Assessment for Sri Lanka and Maldives, 2018-19 – responsible for overall study as Senior Team member and Sri Lankan lead consultant; involved desk study, stakeholder consultations, workshops and report writing.**

E. AWARDS, HONOURS AND FELLOWSHIPS

- UNESCO Team Gold Medal for the best results in the B.Sc. Engineering Final Examination at the University of Moratuwa, 1978/79.
- Commonwealth Scholarship to pursue doctoral studies at Imperial College, University of London, 1982-1985.
- S.D. & C.C. Award for the best paper by an Associate Member under 35 years of age in the Engineer Journal of the Institution of Engineers, Sri Lanka, 1989/90. (Title - Changes in the design of reinforced concrete structures introduced by BS 8110: 1985.)
- S.D. & C.C. Award for the best paper by an Associate Member under 35 years of age in the Engineer Journal of the Institution of Engineers, Sri Lanka, 1990/91. (Jointly with Dr. Mrs. M.T.P. Hettiarachchi; Title - A cost comparison of some ground reservoir forms.)
- Commonwealth Fellowship to pursue post-doctoral research at University of Bristol, U.K., 1992/93.
- NARESA merit award for scientific research, 1993. (Jointly with Dr. S.S.L. Hettiarachchi; Project - Investigations on coastal structures armoured with natural rock and concrete armour units).
- Award for the best article published in Modulus, the newsletter of the Society of Structural Engineers, Sri Lanka, 1994 (Title - Structural ductility and controlled progressive collapse).
- Award for the best answer given to a question raised in Modulus, the newsletter of the Society of Structural Engineers, Sri Lanka, 1995 (Subject - Foreign Codes of Practice).
- Third Prize for Institution of Engineers, Sri Lanka competition for paper on Water Related Infrastructure sponsored by St. Anthony's Industries Group, 1996 (Title - Design and performance of 11350 cu.m. rectangular Jubilee Reservoir in Sri Lanka).
- First Prize for Institution of Engineers, Sri Lanka competition for paper on Water Resources/ Water Management sponsored by International Irrigation Management Institute, 1998 (Title -The analysis of proposed change and stakeholder response - a case study).
- Sri Lanka Association for the Advancement of Science (SLAAS) General Research Committee award, 1998 (Research area - Factors affecting Sorptivity of Concrete).
- Fulbright Senior Scholar Award to pursue postdoctoral research at Carnegie Mellon University, Pittsburgh, U.S.A., 2000/01.
- Outstanding Research Performance Award (15 year duration), University of Moratuwa, Sri Lanka, 1999.
- Outstanding Research Performance Award (3 year duration), University of Moratuwa, Sri Lanka, 1999, 2000, 2001, 2002, 2003, 2004, 2006, 2007, 2008, 2009.

- **President's Research Award (for publications in Science Citation Index journals) – Years 2000, 2002, 2003, 2004, 2005, 2006, 2007, 2013, 2015, 2017**
- NSF merit award for scientific research, 2001. (Jointly with G.N. Kodagoda; Project – The feasibility of using product models for representing building information).
- **Institution of Civil Engineers (U.K) Overseas Prize, 2006 (Jointly with R. Dissanayake and R. Chandratilake); Paper - Lessons learned from tsunami damage in Sri Lanka.**
- **Committee of Vice Chancellors and Directors Award for the Most Outstanding Researcher in Technology Related Sciences (2008)**
- Aristotle S. Onassis Foreigner's Fellowship to pursue research in philosophy at National Technical University of Athens (April 2011)
- **Excellence in Engineering Award, Institution of Engineers, Sri Lanka, 2011**
- Endeavour Executive Award for Professional Development at University of Melbourne (Nov-Dec 2012)
- Long Service Award, Institution of Structural Engineers, 2012.
- **Included in top 2% of researchers worldwide in a database linked to an article in PLOS Biology (08/10/2020). Link: <https://data.mendeley.com/datasets/btchxktzyw/2>**

F. MAJOR THESES SUPERVISED & COMPLETED

1. Multi-criteria assessment for environmental sustainability of buildings (S.R. Chandratilake, PhD, December 2015)
2. Alkali Pozzolan Cement for Integral Sustainability (C. Kulasuriya, PhD, Curtin University, Perth, 2015)
3. Representation of a reinforced concrete design code as an object oriented model (W.J.B.S. Fernando, MPhil, May 2010)
4. Numerical and physical modelling of cracks in masonry walls due to thermal movements of an overlying slab (K.G.S. Dilrukshi, PhD, August 2008)
5. Influence of symmetric setbacks on the performance of high-rise buildings under blast and earthquake loading (I.N Jayatilake, PhD, May 2008)
6. Multidisciplinary product models for buildings (GN Kodagoda, MPhil, April 2004)
7. Energy content and carbon emission audit of building materials (S.P. Pooliyadda, MPhil, March 2000)

G. REFEREED & INDEXED INTERNATIONAL PUBLICATIONS

1. Baiguera, M., Rossetto, T., Palomino, J., DIAS, P., Lopez-Querol, S., Siriwardana, C., Hasalanka, H., Ioannou, I. and Robinson, D. (2021) A New Relative Risk Index for Hospitals Exposed to Tsunami, *Frontiers in Earth Sciences*, accepted for publication.
2. Hasalanka, H., Siriwardana, C.S.A., Kularatne, D. and DIAS, W.P.S. (2021): Development of a Structural Robustness Index against tsunamis for hospitals, *Civil Engineering and Environmental Systems*, DOI: 10.1080/10286608.2021.1890045
3. Del Zoppo, M., Wijesundara, K., Rossetto, T., DIAS, P., Baiguera, M., Di Ludovico, M., Thamboo, J., Prota, A. (2021), Influence of exterior infill walls on the performance of RC frames under tsunami loads: Case study of school buildings in Sri Lanka, *Engineering Structures*, 234, 111920.
4. Kulasuriya, C., Vimonsatit, V., DIAS, W.P.S. (2021), Performance based energy, ecological and financial costs of a sustainable alternative cement, *Journal of Cleaner Production*, 287, 125035.
5. Kaklauskas, A., DIAS, W.P.S., Binkyte-Veliene, A., Abraham, A., Ubarte, I., Randil, O.P.C., Siriwardana, C.S.A., Lill, I., Mileviciusa, V., Podviezko, A. and Puust, R. (2020), Are environmental sustainability and happiness the keys to prosperity in Asian nations? *Environmental Indicators*, 119 (Dec), 106562.

6. Kulasuriya, C., DIAS, W.P.S., Vimonsatit, V. and De Silva, P. (2020) Mechanical and microstructural properties of Alkali Pozzolan Cement (APC), *International Journal of Civil Engineering*, 18(11): 1281-1292.
7. **Dewapriya, M.A.N., Rajapakse, R.K.N.D. and DIAS, W.P.S. (2020) Characterizing fracture stress of defective graphene samples using shallow and deep artificial neural networks, *Carbon*, Volume 163, 15 August 2020, Pages 425-440.**
8. Wagenaar D.J., Dahm R.J., Diermanse F.L.M., DIAS W.P.S., Dissanayake D.M.S.S., Vajja H.P., Gehrels J.C., Bouwer L.M. Evaluating adaptation measures for reducing flood risk: A case study in the city of Colombo, Sri Lanka. *International Journal of Disaster Risk Reduction* 37 (2019). (DOI: 10.1016/j.ijdr.2019.101162).
9. DIAS, W.P.S. & Edirisooriya U. Derivation of tsunami damage curves from fragility functions. *Natural Hazards* 96(3): 1153-1166 (2019). (DOI: 10.1007/s11069-019-03601-8).
10. DIAS, W.P.S., Chandratilake, S.R. & Ofori, G. Dependencies among environmental performance indicators for buildings and their implications. *Building and Environment* (123): 101-108 (2017)
11. Nanayakkara, K.I.U. and DIAS, W.P.S. Fragility curves for structures under tsunami loading, *Natural Hazards*, 80 (2016 Jan): 471-486. DOI: 10.1007/s11069-015-1978-1
12. Matzenberger, J., Hargreaves, N., Raha, D., DIAS, P. A novel approach to assess resilience of energy systems, *Int. J. of Disaster Resilience in the Built Environment*, 6(2): 161-181 (2015). DOI: 10.1108/IJDRBE-11-2013-0044
13. DIAS, P. Is *toughness* a better metaphor than *resilience*?, *Civil Engineering and Environmental Systems*, 32 (1-2): 68-76 (2015). (DOI: 10.1080/10286608.2015.1016922)
14. Chandratilake, S.R. and DIAS, W.P.S. Ratio based indicators and continuous score functions for better assessment of building sustainability, *Energy*, 83: 137-143(April 2015), (DOI: 10.1016/j.energy.2015.02.007)
15. Kulasuriya, C. DIAS, P. and Vimonsatit, V. Integral sustainability of Alkali Pozzolan Cement, *Journal of Integral Theory and Practice*, June 2014, 9(1): 74-87.
16. Kulasuriya, C. Vimonsatit, V. DIAS, W.P.S., De Silva, P. Design and development of Alkali Pozzolan Cement (APC), *Construction and Building Materials*, 68(2014): 426-433.
17. DIAS, Priyan. The disciplines of engineering and history: Some common ground, *Science and Engineering Ethics*, Vol. 20, No. 2, 2014, pp. 539-549 (DOI: 10.1007/s11948-013-9447-2)
18. **DIAS, Priyan. The engineer's identity crisis: Homo faber or homo sapiens? Chapter 11 in *Philosophy and Engineering: Reflections on Practice, Principles, and Process* (ed. D. Goldberg, N. McCarthy & and D. Michelfelder), Springer, 2013, pp. 139-150. (DOI 10.1007/978-94-007-7762-0_11)**
19. Hettiarachchi, S.S.L. and DIAS, W.P.S. The 2004 Indian Ocean Tsunami: Sri Lankan Experience, Ch 16 in *Natural Disasters and Adaptation to Climate Change* book (eds., S. Boulter, J. Palutikof, D. Karoly and D. Guitart), Cambridge University Press, 2013.pp. 158-166.
20. DIAS, W.P.S. Comparing the systems approaches of Checkland and Blockley, *Civil Engineering and Environmental Systems*, Vol 30(3-4), 2013, pp. 221-230. (DOI: 10.1080/10286608.2013.853749)
21. **Chandratilake, S.R. and DIAS, W.P.S. Sustainability rating systems for buildings: Comparisons and correlations, *Energy*, Vol 59 (2013), 22-28. (DOI: 10.1016/j.energy.2013.07.026)**
22. DIAS, P. Aesthetics and Ethics in Engineering: Insights from Polanyi, *Science and Engineering Ethics*, Vol. 17, No. 2, 2011, pp. 233-243. (DOI: 10.1007/s11948-009-9188-4)
23. DIAS, P. Pompeii by Robert Harris: an engineering reading, *ICE Proceedings on Engineering History and Heritage*, Vol 163, Issue EH4, pp. 255-260, November 2010
24. Blockley, D. and DIAS, P. Managing conflict through ethics, *Civil Engineering and Environmental Systems*, Vol. 27, No. 3, 2010, pp. 255-262.
25. DIAS, W.P.S. Is science very different from religion? A Polanyian perspective, *Science and Christian Belief*, Vol 22, No.1, April 2010, pp. 43-55.
26. Dilrukshi, K.G.S. DIAS, W.P.S. and Rajapakse, R.K.N.D. Numerical modelling of cracks in masonry walls due to thermal movements in an overlying slab, *Engineering Structures*, Vol. 32, No. 5, 2010, pp. 1411-1422. (DOI: 10.1016/j.engstruct.2010.01.019)

27. DIAS, W.P.S., Yapa, H.D. and Peiris, L.M.N. Tsunami vulnerability functions from field surveys and Monte Carlo simulation, *Civil Engineering & Environmental Systems*, Vol. 26, No. 2, June 2009, pp. 181-194. (DOI: 10.1080/10286600802435918)
28. DIAS, W.P.S. Philosophical underpinning for systems thinking, *Interdisciplinary Science Reviews*, Vol. 33, No. 3, 2008, pp. 202-213. (DOI: 10.1179/174327908X366897)
29. DIAS, W.P.S. Paradigms, Revolutions and Models: some insights from Thomas Kuhn for an Engineering Outlook, *The Structural Engineer*, Vol. 86, Issue 2, 22 Jan 2008, pp. 33-38.
30. DIAS, W.P.S., G.A.P.S.N. Seneviratne and S.M.A. Nanayakkara, Offshore Sand for Reinforced Concrete, *Construction and Building Materials*, Vol. 22, 2008, pp. 1377-1384. (DOI: 10.1016/j.conbuildmat.2007.04.006)
31. DIAS, W.P.S. Philosophical grounding and computational formalization for practice based engineering knowledge, *Knowledge Based Systems*, Vol. 20, Issue 4, May 2007, pp. 382-387. (DOI: 10.1016/j.knosys.2006.06.002)
32. DIAS, W.P.S. Engineering as cyclic problem solving – Some insights from Karl Popper, *The Structural Engineer*, Vol. 85, Issue 2, 23 Jan 2007, pp. 32-37.
33. Khazai, B., Franco, G., Ingram, J.C., Del Rio, C.R., DIAS, P., Dissanayake, R., Chandratilake, R. and Kanna, S.J. Post - December 2004 tsunami in Sri Lanka and its potential impacts on future vulnerability, *Earthquake Spectra*, Vol. 22, No. S3, June 2006, pages S829-S824. (DOI: 10.1193/1.2204925)
34. DIAS, W.P.S. Heidegger's resonance with engineering: The primacy of practice, *Science and Engineering Ethics*, Vol. 12, No. 3, 2006, pp. 523-532. (DOI: 10.1007/s11948-006-0050-7)
35. DIAS, W.P.S. and Mallikarachchi. H.M.Y.C. Tsunami – planning and design for disaster mitigation, *The Structural Engineer*, Vol. 84, 6 June 2006, pp. 25-29 (invited paper).
36. DIAS, P., Dissanayake, R. and Chandratilake, R. Lessons learned from tsunami damage in Sri Lanka, *ICE Proceedings on Civil Engineering*, Vol. 159, No. 2, May 2006, pp. 74-81. (DOI: 10.1680/cien.2006.159.2.74)
37. DIAS, W.P.S. Influence of drying on concrete sorptivity, *Magazine of Concrete Research*, Vol. 56, No. 9, November 2004, pp. 537-543. (DOI: 10.1680/macr.56.9.537.53145)
38. DIAS, W.P.S. and Pooliyadda, S.P. Quality based energy contents and carbon coefficients for building materials: A systems approach, *Energy*, Vol. 29, No.4, 2004, pp. 561-580. (DOI: 10.1016/j.energy.2003.10.001)
39. DIAS, W.P.S. Influence of mix and environment on plastic shrinkage cracking, *Magazine of Concrete Research*, Vol. 55, No. 4, August 2003, pp. 385-394. (DOI: 10.1680/macr.55.4.385.37589)
40. DIAS, W.P.S. Heidegger's relevance for engineering: Questioning technology, *Science and Engineering Ethics*, Vol. 9, No. 3, 2003, pp. 389-396. (PubMed ID: 12971299)
41. DIAS, W.P.S. Nanayakkara, S.M.A. and Ekneligoda, T.C. Performance of concrete mixes with OPC-PFA blends, *Magazine of Concrete Research*, Vol. 55, No. 2, April 2003, pp. 161-170. (DOI: 10.1680/macr.55.2.161.37564)
42. DIAS, W.P.S., Subrahmanian, E. and Monarch, I.A. Dimensions of order in engineering design organizations, *Design Studies*, Vol. 24, 2002, pp. 357-373. (DOI: 10.1016/S0142-694X(02)00037-6)
43. DIAS, W.P.S. and Ekanayake, E.S. Engineering and society – the power of analogy, *ICE Proceedings on Civil Engineering*, *ICE Proceedings on Civil Engineering*, Vol. 150, No. 3, August 2002, pp. 134-139. (DOI: 10.1680/cien.150.3.134.38622)
44. DIAS, W.P.S. Reflective Practice, Artificial Intelligence and Engineering Design: Common trends and inter-relationships, *Artificial Intelligence in Engineering Design, Analysis and Manufacture (AIEDAM)*, Vol. 16, 2002, pp. 261-271. (DOI: 10.1017/S0890060402164018)
45. DIAS, W.P.S. and Jayanandana, A.D.C. Condition assessment of a deteriorated cement works, *ASCE Journal of Performance of Constructed Facilities*, Vol. 17, No. 4, 2003, pp. 188-195. (DOI: 10.1061/(ASCE)0887-3828(2003)17:4(188))
46. Kulasuriya, C., DIAS, W.P.S. and Hettiarachchi, M.T.P. The aesthetics of proportion in structural form, *The Structural Engineer*, Vol. 80, No. 14, 2002, pp. 22-27.
- 47. DIAS, W.P.S. and Pooliyadda, S.P. Neural networks for predicting properties of concretes with admixtures, *Journal of Construction and Building Materials*, Vol. 15, No. 7, 2001, pp. 371-379. (DOI: 10.1016/S0950-0618(01)00006-X)**

48. **DIAS, W.P.S. Reduction of concrete sorptivity with age through carbonation, *Cement & Concrete Research*, Vol. 30, 2000, pp. 1255-1261. (DOI: 10.1016/S0008-8846(00)00311-2)**
49. DIAS, W.P.S. The analysis of proposed change and stakeholder response - a case study. *Civil & Environmental Engineering Systems*, Vol. 17, 2000, pp. 1-17.
50. DIAS, W.P.S. Sensitivity and Substitutability in Concrete Construction, *Asia Pacific Building and Construction Management Journal*, Vol. 2, No. 2, 1997.
51. DIAS, W.P.S. Influence of curing method and duration on sorptivity of concrete and mortar, Paper SP170-55, in *Durability of Concrete* (ed. V.M. Malhotra), American Concrete Institute, Michigan, 1997, pp. 1073-1095.
52. DIAS, W.P.S. and Weerasinghe, R.L.D. Artificial neural networks for construction bid decisions. *Civil Engineering Systems*, Vol. 13, 1996, pp. 239-253.
53. DIAS, W.P.S. Multi-disciplinary product modelling of buildings, *ASCE Journal of Computing in Civil Engineering*, Vol. 10, No. 1, January 1996, pp. 78-86.
54. DIAS, W.P.S. and Blockley, D.I. Reflective Practice in Engineering Design, *ICE Proceedings on Civil Engineering*, Vol. 108, Issue 4, November 1995, pp. 160-168.
55. DIAS, W.P.S. and Blockley, D.I. The integration of product and process models for design, *Design Studies*, Vol. 15, No. 4, October 1994, pp. 417-432.
56. DIAS, W.P.S. Impact testing of hollow block armour units. *Concrete International*, Vol. 16, No. 6, June 1994, pp. 48-54.
57. DIAS, W.P.S., Jayanandana, A.D.C., Fonseka, M.C.M. and Perera, A.A.D.A.J. Distress in prestressed concrete roof girders at cement plant. *ASCE Journal of Performance of Constructed Facilities*, Vol. 8, No. 1, February 1994. pp. 6-15.
58. DIAS, W.P.S. Structural failures and design philosophy. *The Structural Engineer*, Vol. 72, No. 2, Jan 18, 1994. pp.25-29.
59. DIAS, W.P.S. Durability indicators of OPC concretes subject to wick action. *Magazine of Concrete Research*, Vol. 45, No. 165, December 1993. pp.263-274.
60. DIAS, W.P.S. CONFAULT - An expert system for fault diagnosis in reinforced concrete structures. *Civil Engineering Systems*, Vol. 9, 1992. pp. 147-160.
61. DIAS, W.P.S. Some properties of hardened cement paste and reinforcing bars upon cooling from elevated temperatures. *Fire and Materials*, Vol.16, No.1, January - March 1992. pp. 29-35.
62. DIAS, W.P.S. and Hettiarachchi, M.T.P. A cost comparison of some elevated tank forms. *Indian Concrete Journal*, Vol. 66, January 1992. pp. 43-51.
63. DIAS, W.P.S. A circular organizational structure for project teams. *ASCE Journal of Management in Engineering*, Vol. 16, No. 4, October 1990. pp. 471-478.
64. DIAS, W.P.S., Khoury, G.A. and Sullivan, P.J.E. The thermal and structural effects of elevated temperatures on the basic creep of hardened cement paste. *Materials and Structures: Research and Testing*, Vol. 23, 1990. pp. 418-425. (DOI: 10.1007/BF02472024)
65. DIAS, W.P.S., Khoury, G.A. and Sullivan, P.J.E. Shrinkage of hardened cement paste at temperatures up to 670 C (1238 F). *American Concrete Institute Materials Journal*, Vol. 87, No. 3, May-June 1990. pp.204-209.
66. **DIAS, W.P.S., Khoury, G.A. and Sullivan, P.J.E. Mechanical properties of hardened cement paste exposed to temperatures up to 700 C (1292 F). *American Concrete Institute Materials Journal*, Vol. 87, No. 2, March-April 1990. pp.160-166.**
67. DIAS, W.P.S., Khoury, G.A. and Sullivan, P.J.E. An activation energy approach for the temperature dependence of basic creep of hardened cement paste. *Magazine of Concrete Research*, Vol.39, No.140, 1987. pp.141-147.
68. DIAS, W.P.S., Khoury, G.A. and Sullivan, P.J.E. Basic creep of unsealed hardened cement paste at temperatures between 20 C and 725 C. *Magazine of Concrete Research*, Vol.39, No.139, 1987. pp.93-101.
69. Khoury, G.A., DIAS, W.P.S. and Sullivan, P.J.E. Deformation of concrete and cement paste loaded at constant temperatures from 140 C to 724 C. *Materials and Structures: Research and Testing*, Vol.19, No.110, 1986. pp.97-104. (DOI: 10.1007/BF02481753)

H. REFEREED NATIONAL PUBLICATIONS

1. DIAS, P. and Hahn, R. Structural form as an analogical source for structures in nature. *Journal of the National Science Foundation of Sri Lanka* 47(3): 323-331 (2019). (DOI: 10.4038/jnsfsr.v47i3.9348)
2. Kulasuriya C., DIAS W.P.S., Vimonsatit V. Durability properties of alkali pozzolan cement (APC). *Journal of the National Science Foundation of Sri Lanka* 47(1): 121-131 (2019). (DOI: 10.4038/jnsfsr.v47i1.8929).
3. Dias, W.P.S. Factors influencing the service life of buildings, *Engineer, Sri Lanka*, October 2013, pp. 1-7.
4. Bandara, K.M.K. and Dias, W.P.S. Tsunami wave loading on buildings: a simplified approach, *Journal of the National Science Foundation, Sri Lanka*, Vol. 40, No. 3, 2012, pp. 211-219.
5. Jayatilake, I.N., DIAS, W.P.S., Jayasinghe, M.T.R. and Thambiratnam, D.P. Response of tall buildings with symmetric setbacks under blast loading, *Journal of the National Science Foundation, Sri Lanka*, Vol. 38, No. 2, 2010, pp. 115-123.
6. W.P.S. Dias, M.A.N. Dewapriya, E.A.C.K. Edirisooriya and C.G. Jayathunga. Effects of large retarder overdose on concrete strength development, *Engineer, Sri Lanka*, July 2010, pp. 13-19.
7. Dilrukshi, K.G.S. and DIAS, W.P.S. Physical modelling for investigation of cracking in masonry walls due to thermal movements of an overlying slab, *Engineer, Sri Lanka*, January 2010, pp. 22-31.
8. Dilrukshi, K.G.S. and DIAS, W.P.S. Field Survey and Numerical Modelling of Cracking in Masonry Walls due to Thermal Movements of an Overlying Slab, *Journal of the National Science Foundation, Sri Lanka*, Vol. 36, No.3, 2008, pp. 205-213.
9. DIAS, W.P.S. Some properties of plasticised mortars used as plasters, *Engineer*, Vol. 36, No. 2, April 2003, pp. 20-25.
10. Kodagoda, G.N. and DIAS, W.P.S. An interacting multidisciplinary building product model, *Engineer, Sri Lanka*, September 2001, pp. 36-44.
11. Pooliyadda, S.P. and DIAS, W.P.S. The significance of embedded energy for buildings in a tropical country, *Engineer, Sri Lanka*, September 2001, pp. 25-35. (Also in *The Structural Engineer*, Vol. 83, No. 11, pp. 34-36, 7 Jun 2005 and *International Conference on Global Construction: Ultimate Concrete Opportunities*, Dundee, Scotland, July 2005)
12. DIAS, W.P.S. An example of data transformation for backpropagation neural networks, *Engineer, Sri Lanka*, September 2000, pp. 33-38.
13. DIAS, W.P.S. and Al-Kabbani, I. Design and performance of 11350 cu.m. rectangular jubilee reservoir in Sri Lanka, *Engineer, Sri Lanka*, June 1997, pp.74-81.
14. DIAS, W.P.S. and Hettiarachchi, S.S.L. An object oriented systems approach for modelling estuarial and costal sand budgets, *Engineer, Sri Lanka*, June 1996, pp. 19-29.
15. DIAS, W.P.S. and Weerasinghe, R.L.D. Bidding behaviour of Sri Lankan contractors. *Engineer, Sri Lanka*, December 1995, pp. 5-17.
16. DIAS, W.P.S. Structural appraisal of reinforced concrete buildings from in-situ material properties - some issues and insights. *Transactions, Inst. of Engineers, Sri Lanka*, 1994. pp. 129-145.
17. DIAS, W.P.S. Influence of mix constituents and workmanship factors on concrete strength and durability. *Engineer, Sri Lanka*, June 1994, pp. 3-18.
18. DIAS, W.P.S. and Nimal Priyantha, D.G. Performance of right angled reinforced concrete corner joints subject to opening moments. *Engineer, Sri Lanka*, December 1993. pp. 3-14.
19. DIAS, W.P.S. Product modelling of buildings. *Trans. Inst. of Engineers, Sri Lanka*, 1993. pp. 134-151.
20. DIAS, W.P.S. and Danthanarayana, B.N. Development of a computerised estimating system for Sri Lankan building contractors (BUILDEST). *Engineer, Sri Lanka*, June 1993. pp.35-43.
21. DIAS, W.P.S. Concrete in the marine environment - a review with emphasis on tropical coastal applications. *Journal of the National Science Council, Sri Lanka*, Vol. 21, No.1, 1993. pp.27-47.
22. DIAS, W.P.S. Specifying for concrete durability: Part II - The Sri Lankan context. *Engineer, Sri Lanka*, 1992. pp. 4-24.

23. DIAS, W.P.S. Specifying for concrete durability: Part I - A critical review. Engineer, Sri Lanka, December 1991. pp. 51-63.
24. DIAS, W.P.S., Mansur, U., Makewita, M.A.S.M. and Perera, J.A.A.K. A preliminary investigation into the safety factors and live loads for office and domestic buildings in Sri Lanka. Engineer, Sri Lanka, June 1991. pp. 19-31.
25. DIAS, W.P.S. Correlation of non-destructive test results with concrete strength. Engineer, Sri Lanka, March 1991. pp. 3-13.
26. DIAS, W.P.S. and Hettiarachchi, M.T.P. A cost comparison of some ground reservoir forms. Engineer, Sri Lanka, December 1990. pp. 53-60.
27. DIAS, W.P.S. Changes in the design of reinforced concrete structures introduced by BS 8110: 1985. Engineer, Sri Lanka, June 1990. pp. 51-63.
28. DIAS, W.P.S. and Sivasubramaniam, S. Assessment of floor slabs in the Bandaranaike Wing of the Colombo General Hospital. Engineer, Sri Lanka, September 1989. pp. 27-36.
29. DIAS, W.P.S., Rayen, J.S., Senthikumar, B., Premawardhana, C.S. and Thillainathan, S. Cement mortar roofing sheets reinforced with coir fibre. Engineer, Sri Lanka, December, 1986. pp.34-49.

I. MONOGRAPHS AND BOOKS (published ones in bold face)

1. **DIAS, Priyan. Philosophy for Engineering: Practice, Context, Ethics, Models, Failure, Springer, 2019. (ISBN: 978-981-15-1270-4)**
2. **IOC/UNESCO Guideline 52. Tsunami Risk Assessment and Mitigation for the Indian Ocean, 2015 – contributing author**
3. **DIAS, Priyan and Kesawan, Sivakumar. Graded examples in reinforced concrete design (to Eurocode 2), Third edition, Society of Structural Engineers, Sri Lanka, 2013.**
4. DIAS, W.P.S. The use of Thermo-Mechanically Treated (TMT) bars in Reinforced Concrete, submitted to Melwire Rolling (Pvt) Ltd, July 2009.
5. **Society of Structural Engineers, Sri Lanka Guidelines for buildings at risk from natural disasters, October 2005 – lead author.**
6. DIAS, W.P.S. Useful Life of Buildings, submitted to Sri Lanka Accounting and Auditing Standards Monitoring Board, June 2003.
7. DIAS, W.P.S., Nanayakkara, S.M.A., Seneviratne, G.A.P.S.N. and Nanthanan, T. Properties of concrete and plaster made using offshore sand, manufactured sand and quarry dust, submitted to Coastal Resources Management Project, Sri Lanka, September 2002.
8. DIAS, W.P.S., Nanayakkara, S.M.A., Ekneligoda, T.C., De Silva, W.S.A. and Fernando, H.B.S. Properties of PFA blended cement in concrete, submitted to Puttalam Cement Company Limited, January 2000.
9. DIAS, W.P.S., Perera, A.A.D.A.J., Nanayakkara, S.M.A., Sahayan, S.J.M. and Sathyaprasad, I.M.S. Interim Sand Study (Alternatives for River Sand), Dept. of Civil Engineering, University of Moratuwa, September 1999.
10. **DIAS, W.P.S. Graded examples in reinforced concrete design, Second edition, Asian Center for Engineering Computations and Software, AIT, Bangkok, 1998.**
11. **Karunaratne, S. and DIAS, W.P.S. (eds.) University of Moratuwa: History: 1972-1997, University of Moratuwa, 1997.**
12. **DIAS, W.P.S. Graded examples in reinforced concrete design, Society of Structural Engineers - Sri Lanka, Colombo, 1995.**
13. DIAS, W.P.S. Reinforced Concrete Design (5 chapters) in DIAS, W.P.S. and Hettiarachchi, M.T.P. Structural Design, CEU 4306, Level 6, Block 1-A, Open University, 1992.
14. Hettiarachchi, S.S.L. and DIAS, W.P.S. Investigations on the performance of coastal structures armoured with natural rock and concrete armour units, Dept. of Civil Engineering, University of Moratuwa, Sri Lanka, December 1992.
15. DIAS, W.P.S. et al. Studies on design of ground reservoirs and elevated tanks, Dept. of Civil Engineering, University of Moratuwa, Sri Lanka, April 1989. 223 pp.

16. DIAS, W.P.S. Time dependent deformations of hardened cement paste from 20 C to 725 C. PhD. thesis, University of London, 1986. 398 pp.

J. REVIEWED PUBLICATIONS

1. DIAS, P. and Jowitt, P. (2020), What is the body of knowledge for engineers involved with civil engineering systems?—A 2020 vision (Editorial), *Civil Engineering and Environmental Systems* 37(4), 149-153.
2. DIAS, P. (2020), Review of “Steps Toward a Philosophy of Engineering: Historico-Philosophical and Critical Essays” by Carl Mitcham, *Prometheus*, 36(4), 396-402.
3. DIAS, P. and Viswakula, S. (2020) Structural mechanics analogies for a resilience audit and index. *Moratuwa Engineering Research Conference (MERCon) 2020*, Moratuwa, Sri Lanka, 2020, pp. 66-71.
4. Dhasindrakrishna, K. and DIAS, P. A simplified nonlinear method for progressive collapse analysis of moment resisting frames. *Moratuwa Engineering Research Conference (MERCon) 2019*, Moratuwa, Sri Lanka, 2019, pp. 1-6.
5. Randil, C., Siriwardana, C. and DIAS, P. Comparison of damage values used in different flood modelling studies, *Moratuwa Engineering Research Conference (MERCon) 2019*, Moratuwa, Sri Lanka, 2019, pp. 25-30.
6. Nanayakkara, I. and DIAS, P. Feedback on seismic resistance capacity of compression only structures using Thrust Network Analysis, IASS Symposium 2018 – Creativity in Structural Design, MIT, Boston, July 2018
7. Jayasinghe, J.A.A.S., Mallikarachchi, H.M.Y.C., Nanayakkara, S.M.A. and DIAS, W.P.S., Modelling of corrosion induced cover cracking in concrete with exposed reinforcement, *Moratuwa Engineering Research Conference (MERCon) 2018*, Moratuwa, 2018, pp. 120-125.
8. Nanayakkara, K.D. and DIAS, W.P.S., High volume fly ash mixes supplemented with colloidal Nano Silica, *Moratuwa Engineering Research Conference (MERCon) 2017*, Moratuwa, 2017, pp. 253-258.
9. Fernando, P.L.N. and DIAS, W.P.S. Some engineering aspects of ancient structures, 6th International Conference on Structural Engineering & Construction Management, Kandy, 2015.
10. DIAS, Priyan. Measuring scientific publishing, *Journal of the National Science Foundation of Sri Lanka* 43 (2):99-100 (June, 2015)
11. Nanayakkara, K.I.U. and DIAS, W.P.S. Fragility curves for tsunami loading, 4th International Conference on Structural Engineering & Construction Management, Kandy, 2013.
12. Mallikarachchi, H.E., DIAS, W.P.S. and Baskaran, K. Study on early strength and workability of high volume fly ash and nanosilica mixes, 4th International Conference on Structural Engineering & Construction Management, Kandy, 2013.
13. DIAS, Priyan. Do scientists need to know how science works?, *Journal of the National Science Foundation of Sri Lanka* 41 (1):1-2 (March, 2015)
14. Godfrey, P. Agarwal, J. and DIAS, P. Systems 2030 – Emergent trends (Editorial), *Civil Engineering and Environmental Systems*, Vol. 27, No. 3, 2010, pp. 177-187. (DOI: 10.1080/10286608.2010.489944)
15. DIAS, Priyan. Tsunami in focus (Editorial), *Civil Engineering & Environmental Systems*, Volume 26, Issue 2, June 2009, Pages 161-162 (DOI: 10.1080/10286600902910422)
16. DIAS, W.P.S. The engineer’s identity crisis: Homo faber vs. Homo sapiens, Workshop on Philosophy & Engineering, Royal Academy of Engineering, London, November 2008.
17. Jayatilake, I.N., DIAS, W.P.S., Jayasinghe, M.T.R. and Thambiratnam, D.P. Influence of Setbacks on the Performance of High-Rise Buildings under Blast Loadings, 2nd International Conference on Design and Analysis of Protective Structures, Singapore, November 2006.
18. DIAS, P., Fernando, L., Wathurapatha, S. and De Silva, Y. Structural resistance against sliding, overturning and scouring caused by tsunamis, Int Conf on Disaster Reduction on Coasts, Melbourne, November 2005.

19. DIAS, W.P.S. and Padukka, U.A. AI techniques for preliminary design decisions on column spacing and sizing, 8th Int. Conf. on the Application of Artificial Intelligence to Civil, Structural and Environmental Engineering, Rome, 30 Aug to 2 Sep, 2005.
20. DIAS, W.P.S. and S.R. Chandratilake, Assessing vulnerability of buildings to blast using interval probability theory, 8th Int. Conf. on the Application of Artificial Intelligence to Civil, Structural and Environmental Engineering, Rome, 30 Aug to 2 Sep, 2005.
21. DIAS, W.P.S. Discussion of "Do ethics matter? by D. Blockley", *The Structural Engineer*, Vol. 83, No. 14, p. 38, 19 Jul 2005.
22. Chandratilake, S.R. and DIAS, W.P.S. Identifying vulnerability to blast loading using grounded theory, Engineering Research Unit Symposium on Research for Industry, August 2004.
23. DIAS, W.P.S. Discussion on "Mechanical Properties of old concrete using destructive and ultrasonic non-destructive testing methods by I.N. Prassianakis & P.Giokas", *Magazine of Concrete Research*, Vol. 56, No. 5, pp. 311-312, June 2004.(DOI: 10.1680/mac.56.5.311.36312)
24. DIAS, W.P.S. Practice based knowledge: from craftsman to engineer, *Proceedings, Sri Lanka Association for the Advancement of Science*, 2001 (abstract only).
25. DIAS, W.P.S., Nanayakkara, S.M.A., Ekneligoda, T.C., De Silva, W.S.A. and Fernando, H.B.S. Properties of PFA blended cement in concrete, *International Symposium on Asian Concrete Model Code*, Colombo, Sri Lanka, March 2000, pp. 54-73.
26. DIAS, W.P.S., Pooliyadda, S.P. and Kodagoda, G.N. Energy database for building materials, *Proceedings, Sri Lanka Association for the Advancement of Science*, 1999 (abstract only).
27. DIAS, W.P.S. and Ekanayake, E.S. A structural engineering analogy for the vulnerability of communities, *Proceedings, Sri Lanka Association for the Advancement of Science*, 1999 (abstract only).
28. DIAS, W.P.S. The use of concrete design codes across national boundaries, *IABSE Colloquium Report on "Concrete Model Code for Asia"*, Vol. 80, Phuket, Thailand, 1999, pp. 54-59
29. DIAS, W.P.S. Concrete technology in Sri Lanka. *Seminar on Special Application Cements*, Society of Structural Engineers, Colombo, January 1999.
30. DIAS, W.P.S. Computational implementations of hierarchical structures in building design and structural engineering. *Proceedings, Sri Lanka Association for the Advancement of Science*, 1998 (Abstract only).
31. DIAS, W.P.S. Effect of data transformation on artificial neural networks. *Proceedings, Sri Lanka Association for the Advancement of Science*, 1998 (Abstract only).
32. DIAS, W.P.S. Assessment of structures in distress. *Seminar on Concrete Repair, Strengthening, Fire & Blastproofing*, Society of Structural Engineers, Colombo, July 1998.
33. DIAS, W.P.S. Discussion on "Engineering on the right by D.M. Brohn", *Structural Engineer*, Vol. 75, No. 9, 6 May 1997, pp. 159-160.
34. DIAS, W.P.S. and Bamunusinghe, A. Energy and environmental audit of building materials. *Open University Review of Engineering Technology*, Vol. 3, No. 1, Part 1, March 1997, pp. 94-101.
35. DIAS, W.P.S. Design from breakdowns: The integration of design and diagnosis, in *Information Technology in Civil and Structural Engineering Design* (eds. B. Kumar, I.A. MacLeod and A. Retik), Inverleith Spottiswoode, Edinburgh, 1996, pp. 77-80.
36. DIAS, W.P.S. and Hettiarachchi, S.S.L. A systems approach for modelling the sediment budget in coastal erosion. *Proc. 4th Int. Conf. on Coastal and Port Engineering in Developing Countries (COPEDEC IV)*, Rio de Janeiro, September 1995, pp. 552-565.
37. DIAS, W.P.S. Sorptivity testing for assessing concrete quality. *Proc. Int. Conf. on Concrete under Severe Exposure Conditions (CONSEC'95)*, Sapporo, Japan, E.& F.N. Spon, London, August 1995, pp. 433-442.
38. DIAS, W.P.S. and Blockley, D.I. Discussion on "Galileo's confirmation of a false hypothesis: a paradigm of logical error in design by Henry Petroski". *Civil Engineering Systems*, Vol. 11, pp. 75-77, 1994.
39. DIAS, W.P.S. Discussion on "Influence of surface finish on sorptivity of concrete by W.J. McCarter". *ASCE Journal of Civil Engineering Materials*, Vol. 6, No. 2, May 1994.
40. DIAS, W.P.S. Structural ductility and controlled progressive collapse. *Modulus*, Vol. 5, No. 2, Society of Structural Engineers, Sri Lanka, June 1994.

41. DIAS, W.P.S. A survey of some Sri Lankan batching plant records. Int. Conf. on The Concrete Future, Kuala Lumpur, Malaysia, February 1992. pp. 33-40.
42. DIAS, W.P.S. Mix design considerations for unreinforced concrete armour units in a tropical developing country. Proc. 3rd Int. Conf. on Coastal and Port Engineering in Developing Countries (COPEDEC III), Mombasa, Kenya, September 1991. pp.638-648.
43. DIAS, W.P.S. Condemnation of a partially completed grandstand structure. Proc. Int. Conf. on Case Histories in Structural Failures, Singapore, March 1989.
44. DIAS, W.P.S. and Niles, D.R. An educational software package in Structural Engineering. Proceedings, 8th National Computer Conference, Colombo, Sri Lanka, January 1988.
45. DIAS, W.P.S., Khoury, G.A and Sullivan, P.J.E. Upper and lower bounds for the elevated temperature creep of hardened cement paste. Paper H 2/10, 9th Int. Conf. on Structural Mechanics in Reactor Technology, Lausanne, Switzerland, August 1987.

K. MAJOR LECTURES & GENERAL ARTICLES

1. Medicine as Engineering? Keynote Address, Annual Research Symposium, Faculty of Medicine, University of Colombo, 4 December 2020.
2. **Extending Some Kulasinghe Innovations, 14th Deshabandu Vidya Jyothi Eng (Dr) A.N.S. Kulasinghe Memorial Lecture, Institution of Engineers, Sri Lanka, 26 October 2020. Link: <https://www.youtube.com/watch?v=BhH6ziI7sOM>**
3. The Role of Analogy in Discovery, Keynote Address, "Advances in Concrete Technology, Structural Engineering and Design (ACTSED): Dedicated to Helarisi Abeyruwan", University of Peradeniya, Sri Lanka, August 2019.
4. **From the Nature of Structures to the Structure of Nature, Keynote Address, 1st Annual Sessions, Society of Structural Engineers, Sri Lanka, November 2011; also delivered at the Department of Philosophy, University of Bristol (June 2011); and Curtin University, Perth (March 2012).**
5. **Is Science very Different from Religion? Bishop Cyril Abeynaike Memorial Lecture at Cathedral of Christ the Living Saviour, Colombo, May 2010.**
6. **Philosophical grounding and computational formalization for practice based engineering knowledge, Keynote Address, 5th Annual Sessions, Sri Lanka Association for Artificial Intelligence, October 2008.**
7. New Material for Concrete, Sessional Keynote Address, International Conference on New Technologies for the 21st Century, Institution of Engineers, Sri Lanka, October 2006
8. Tsunami – planning and design for disaster mitigation, The Institution of Structural Engineers Headquarters, London, U.K. 22 June 2006.
9. Tsunami-Sustainable Construction of Buildings at Risk from Natural Disasters, Institution of Structural Engineers, Queensland Division & The Structural Branch, Engineers Australia, Queensland Division, 22 November 2005, Brisbane, Australia
10. Sustainable Construction of Buildings at Risk from Natural Disasters in the Post-Tsunami Period, Queensland University of Technology, 22 November 2005, Brisbane, Australia
11. **Constructing a Philosophy of Engineering – lecture delivered at (i) Williams College, Williamstown, MA (October 2000), (ii) Institute for Complex Engineered Systems, Carnegie Mellon University, Pittsburgh, PA (March 2001), (iii) Centre for Philosophy of Science, University of Pittsburgh, PA (April 2001), (iv) Civil Engineering Seminar, Johns Hopkins University, Baltimore, MD (May 2001), (v) School of Civil Engineering, Nanyang Technological University, Singapore (June 2004), (vi) Department of Civil Engineering, National University of Singapore (July 2004), (vii) Faculty of Engineering, University of Cambridge (June 2006).**
12. Non destructive testing of concrete in Sri Lanka, Society of Structural Engineers Symposium, Kandy, November 1999.
13. Design of Buildings against Bomb Blast, Industrial Security Foundation, November 1999.
14. Concrete Technology in Sri Lanka - some Issues and Problems. Seminar on "Concrete Technology - Present and Future", Institute for Construction Training & Development, November 1997.

15. Environmentally sensitive Design and Construction - Question Time, Society of Structural Engineers, April 1997.
16. The Construction Industry and Biodiversity, Workshop for Professionals in the Construction Industry, Biodiversity Skills Enhancement Project, Trans Asia Hotel, October 1996.
17. Failures are the Pillars of Success - Structural failures and design philosophy. Public Lecture arranged by British Scholars association, May 1994.

L. SOFTWARE DEVELOPED

1. Kodagoda, G.N. and DIAS, W.P.S. PROMOD – A product model for architectural and structural aspects of a building, written in Delphi, December 1999.
2. DIAS, W.P.S. CUSARC - Cumulative Sum Analysis for Ready-Mixed Concrete, for Sanken Lanka Ltd., December 1997.
3. DIAS, W.P.S. and Danthanarayana, B.N. BUILDEST - A computerised estimating system for Sri Lankan building contractors, for Institute of Construction Training & Development, 1993.
4. DIAS, W.P.S. and Niles, D.R. CANTDEF – An educational software package for Cantilever Deflections, for teaching at the University of Moratuwa, 1988.

M. RESEARCH GRANTS

1. **ReSCOOL - Resilience Of Schools To Extreme Coastal FLOODing Loads, Research England Grant via University College London, GBP 99,000, 2020. Co-investigator & Sri Lanka Coordinator.**
2. **HEARTS-SL: Hospital Engineering Assessment for Resilience to Tsunami & Storm surge – SL, Research England Grant via University College London, GBP 98,000, 2019. Co-investigator & Sri Lanka Coordinator.**
3. Nanoparticles in high volume fly ash cement mixes, Holcim (Lanka), Rs 990,000 over 2 years, 2013.
4. Modelling of tsunami loads and resistance, University of Moratuwa, Rs 190,000 over 2 years, December 2005.
5. Development of an Inorganic Polymer Concrete Material for Walling Units. Strongwall International Ltd, Australia, AusD 30,000 over 6 months, April 2003.
6. **Properties of Concrete and Plaster made using Offshore sand, Manufactured sand and Quarry dust. ANZDEC Ltd. Rs. 1,428,000 over 6 months, December 2001.**
7. Properties of Fly ash Concrete. Puttalam Cement Company Limited. Rs 640,000 over 6 months, June 1999.
8. Interim Sand Study (Study on alleviating impacts of river sand mining, primarily by investigating alternatives for river sand in construction). Central Environmental Authority. Rs. 770,000 over 6 months, December 1996.
9. The feasibility of using product models for representing building information. Natural Resources, Energy and Science Authority (NARESA). Rs. 160,000 over 2 years, December 1995 (MPhil project).
10. Energy and environmental audit of building materials. Energy Conservation Fund. Rs. 440,000 over 2 years, October 1995 (MPhil project).
11. Development of a computerised estimating system for Sri Lankan building contractors. Institute for Construction Training and Development (ICTAD) and International Labour Organisation (ILO). Rs. 30,000 over 12 months, April 1991.
12. Investigations on the performance of coastal structures armoured with natural rock and concrete armour units. Grant No. RG/89/E/2, Natural Resources, Energy & Science Authority (NARESA). Rs. 141,000 over 2 years, February 1989. (Jointly with Dr. S.S.L. Hettiarachchi).
13. **Studies on design of ground reservoirs and elevated tanks. Contract No. T & C/R/409/88 under NWSDB/USAID Water Supply and Sanitation Sector Project (AID Project 383-0088), Rs. 278,500 over 6 months, April 1988.**

N. MAJOR SEMINARS/SHORT COURSES ORGANISED/CONDUCTED

1. Short Course (4 days) on Reinforced Concrete Design to Eurocode 2, August 2012, March 2015 (Resource Person).
2. **Short Course (4 days) on Advanced Concrete Technology, Maldives, March 2007 (Co-ordinator & Resource Person)**
3. **Workshop on Artificial Neural Networks for Civil Engineering Applications, Department of Civil Engineering, University Putra Malaysia, Selangor, Malaysia, 9 November 2005 (Resource Person)**
4. Short Course (4 days) on Advanced Concrete Technology, Department of Civil Engineering, University of Moratuwa, 2002 and 2010 (Resource Person).
5. Seminar on Alternatives for River Sand, in collaboration with Institute of Construction Training and Development (ICTAD) and Coast Conservation Department (CCD), ICTAD Auditorium, May 1997 (Co-ordinator/ Resource Person).
6. Microcomputer workshop for Structural Engineering Application and Practice (M/SEAP-10), in association with Asian Centre for Engineering Computations and Software (ACECOMS), Asian Institute of Technology (AIT), Bangkok, in collaboration with Dept. of Civil Engineering, University of Peradeniya, held at Institute of Computer Technology, University of Colombo, December 1996 (Co-ordinator).
7. National Training Programme on An Instructional Package in Concrete Technology, held at the Dept. of Civil Engineering, University of Moratuwa, sponsored by UNESCO, November 1986 (Co-ordinator/ Resource Person).

O. CONSULTANCY ASSIGNMENTS

(Structural Design)

1. Design of 1000 cubic metre ground reservoir for Coast Conservation Division, 1982 - functioned as junior partner in this assignment involving design to BS 5337:1976 and production of working drawings.
2. Studies on Ground Reservoirs and Elevated Tanks for National Water Supply and Drainage Board, June 1988 to April 1989 - functioned as Project Manager in this contract research project involving structural design and cost evaluation for optimum tank forms, co-ordinating the work of 4 engineers and 3 field staff.
3. Design review of proposed Jubilee Reservoir for Engineering Science Ltd. and National Water Supply and Drainage Board, September 1991 to April 1992 - functioned as Structural Engineering Consultant for Engineering Science Ltd., in checking design calculations and drawings submitted by Josef Riepl Inc. of a 11,350 cu.m. rectangular ground reservoir.
4. Design review of proposed 1400 cu.m. Intze elevated water tank at Kalmunai for Environmental Engineering Consultants Ltd, July 1994 - functioned as independent checking engineer.
5. Design review of proposed Steel Portal Frame industrial building with gantry crane, January-February 1995 - functioned as Structural Engineering Consultant for Engineering Consultants Ltd., in checking calculations and drawings submitted by Project Engineering Consultants Ltd.
6. Condition report on buildings at Royal Ceramics Ltd. factory at Eheliyagoda, July 1995 - functioned as Structural Engineering Consultant in checking key elements, proposing minor rectifications and documenting as built drawings.
7. Checking of Specialist Centre Building at James Peiris Mawatha, Colombo 2, for Maga Engineering (Pte) Ltd., September 1995 - functioned as independent checking engineer, making limited spot checks on the structural design and construction quality.
8. Design Review of Tea Factory at Nivithigala for Tea Smallholder Factories Ltd., John Keels Holdings, January 1998 - functioned as independent checking engineer in a turnkey precast concrete project.
9. Assessment of suspect beams in Hambantota Port Administration Complex building, November 2010 for Stems Consultants – involved checking of under designed beams and proposing remedial measures.

10. **Design review and approval of Lotus Tower Project designs, functioning as Lead Structural Engineering Consultant for Project Consultancy Unit, University of Moratuwa, 2012 to date – involved computer modelling, design checking and site supervision.**
11. Design Review of Cantilever Roof for Koggala Holiday Resort for Resource Management Consultants, March 2014 – involved modelling, design review and recommendations for a turfed 6.9 m clear span cantilever roof.
12. Structural Design Review of Proposed Apartment Complex at Nugegoda for Orient Construction: Part 1 – Raft Foundation, May 2017 – involved modelling and design review of foundation for multi-storey apartment complex with a central movement joint.
13. Design Improvement of Raft Foundation for 750 cu.m. Conical Type Elevated Water Tank Ethakada for Ceywater Consultants, June 2020 – involved finite element analysis of existing and modified tank foundation, designed to overcome original design deficiencies.

(Feasibility Reports)

1. Feasibility of using welded wire fabric of various forms in the construction industry for Macsons Industries, June 1987 to July 1987 - functioned as consultant, preparing 4 reports based on experimental results, cost surveys and structural designs.
2. Investigation on the adequacy of an aluminium window system for withstanding wind loading, for Uniarc (pvt.) Ltd., January 1993 - involved design calculations and laboratory testing.
3. Guidelines for selection of structurally efficient and economic structural forms for domestic buildings, for Ceylinco Homes International Ltd., May 1995 - involved conceptual and detailed design and optimisation studies.
4. Concrete Quality Improvement Programme, for Sanken Lanka Ltd., November 1995 to 2000 - involved upgrading concrete production quality, through mix designs and monitoring of batching plant data; also involved development of CUSUM software on a spreadsheet.
5. **Report on Capacity generation of the Ministry of Construction & Public Works to assess structural safety of government buildings and other important infrastructure in the Republic of Maldives, October 2001.**
6. **Report on Useful Life of Buildings, for Sri Lanka Accounting and Auditing Standards Monitoring Board, June 2003 – involved preparation of guidelines for estimating service life of buildings.**
7. Properties of concrete mixes containing the admixture Kalmatron KF-Sea, for Finco Ltd, October 2005 – involved strength and corrosion testing.
8. The use of Thermo-Mechanically Treated (TMT) bars in Reinforced Concrete, for Melwire Rolling (Pvt) Ltd, July 2009.
9. Offshore Sand from Sri Lanka Land Reclamation and Development Corporation, May 2014 – involved checking test results from naturally washed offshore sand.
10. Use of Quarry Dust as Fine Aggregate in Concrete, for Jaffna Kilinochchi Water Supply & Sanitation Project, January 2017.
11. Use of Blockwork for Non-Structural Walls at Havelock City Phase 3 Development, for ICC Construction, September 2017 – using blockwork instead of concrete for exterior walls.
12. Durability of Spun Piles for Application in the Maldives, for ELS Services, October 2018 – checking of thin sections for marine durability.
13. Fire Resistance Cover for Pretensioned Beams of a Flooring System, for ICC Construction, November 2019 – involved checking fire resistance of an existing flooring system with minimal cover provisions.
14. Use of ICC-ACOTEC Precast Wall Panel – Version 2, for ICC Construction, December 2020 – involved the derivation of guidelines for using precast wall panels for greater than standard heights.

(Structural Investigations and Audits)

1. Inspection of cracked floor beam at Podujaya Vidyalaya, Angulana for Ministry of Education, March 1987 - ascertaining cause of failure and specifying remedial measures.
2. Inspection of partially completed grandstand structure at Bandaragama for Messrs. Jayaratne Contractors, Dec. 1987 - non-destructive testing of structure after failure of cube test results.

3. Inspection of floor slabs at Colombo General Hospital, September 1988 - coring and chemical analysis of samples to determine the condition of floor slabs during an overall rehabilitation programme.
4. Investigation of damaged reservoir roofs for National Water Supply and Drainage Board, July, 1989 - site inspection, testing of core samples and proposing remedial measures after analysing of existing and proposed structures.
5. Investigation of Prestressed Concrete Trusses at Puttalam Cement Works for Cement Corporation, December 1990 - non destructive and lab testing, checking of design, diagnosis of cause for cracks in girders and proposal of remedial measures.
6. Investigation of cracking at Superior Courts Complex, July 1991 - visual inspection, assessment of structural drawings, monitoring of cracks and proposal of remedial measures.
7. Investigation of cracks in floor slab at Bandaranayake Maha Vidyalaya, Gampaha for Ministry of Education, August 1991 - non-destructive assessment of reinforcement spacing and cover.
8. Investigation of deteriorated concrete at Norton Bridge for Ceylon Electricity Board, September 1991 - visual inspection, water quality testing and proposal for further investigations.
9. Investigation of existing building for new occupant for State Engineering Corporation and People's Bank, March 1994 - core testing, pulse velocity testing and covermeter surveys to determine in-situ material properties.
10. Load testing of floor and tier slabs in Reid Avenue Racecourse Grandstand for Department of Buildings, July 1994 - loading by sandbags and deflection monitoring of typical critical slabs prior to renovation.
11. Testing of core samples from floors of Bank of Ceylon York Street Building for Bank of Ceylon, March 1995 - testing of concrete over 100 years old.
12. Investigations on the proposed Matara Shopping Complex Building for State Engineering Corporation, January 1996 - diagnosis of cracking on ground floor walls of proposed two storey structure, and recommendations for further construction.
13. Condition report on Ruhuna University hostel constructed by NERD Centre for University of Ruhuna, January 1996 - diagnosis of cracking and recommendations regarding safety and further use of similar technology.
14. Investigation of plastic shrinkage cracks on factory building, for Cadillac Garments Ltd., May 1996 - visual inspection, load testing and proposal of remedial measures.
15. Condition report on Sethsripaya administrative complex, Battaramulla for State Engineering Corporation, July 1996 - sampling of structure for material properties by core testing and in-situ pulse velocity and covermeter testing, and interpretation of results.
16. Structural assessment of partially completed Maradana Mosque, October 1997 - core testing, reinforcement testing, dimensional checks and structural analysis of continuous beam with 47 foot central span.
17. Structural assessment of buildings at Angoda Mental Hospital for Ministry of Health, March 1998 - core testing (including sorptivity) and design checking of a 70 year old building.
18. Feasibility of additional storeys in building for Upali Garments, April 1998 - core testing and out of plumb measurements for a two storey structure with differential settlements.
19. Core tests and in-situ investigations for assessment of structures at Puttalam Cement Works for Puttalam Cement Company Ltd., April 1998 - carrying out and interpreting visual inspection, core testing (including sorptivity), ultrasonic pulse velocity measurements, covermeter surveys and chemical analyses prior to assessing condition of structures and recommending measures for rehabilitation.
20. Investigation of corrosion damage at Riverina Hotel, May 1998 - inspection and testing for carbonation and chlorides.
21. Checking of factory floor at Smart Shirts Ltd., October 1998 - carrying out visual inspection, non destructive testing (USPV and covermeter), core testing and design checking of suspended factory floor to be commissioned for garment producing operations.
22. Distress in factory building at FMJ Plastics Ltd., December 1998 - inspection and design checking of 3 storey factory building severely under-designed in both structural and geotechnical aspects, and recommending remedial measures.
23. Inspection of Hotel Sunflower, Negombo, February 1999 - in-situ measurements for durability aspects, in connection with a change of use of the 25 year old building.

24. Defects in the building for theatre for cardiac operations, National Hospital, Colombo, April 1999 – diagnosis of thermal cracking in walls and proposals for remedy.
25. Structural assessment of Jaffna Main Library building, June 1999 – inspection, classification of damage and proposing remedial measures for building subjected to fire, corrosion and blast damage.
26. Condition report on building at Institute of Aesthetic Studies, June 1999 – checking 100 year old concrete flat roof and sunshades for corrosion and delamination, and proposing remedial measures.
27. Investigation of distress in three storey building at Ananda Balika Vidyalaya, Colombo 10, July 1999 – inspection of settlement and poor quality concrete, and proposals for strengthening foundations and jacketing columns.
28. Fire damage to stores and office building at Ocean Lanka, Biyagama IPZ, for STRAD Consultants, September 1999 – assessment of fire damage to reinforced concrete elements and proposing remedial measures.
29. Load testing of portico slab at National Institute of Business Management, September 1999 – load testing, in situ testing and design checking to ascertain capacity for change of use.
30. Correction of defects in swimming pool at Police Sports Complex, Narahenpita, July 2001 – site inspection, design review and proposing remedial measures.
31. Checking of collapsed 10 m/ 225 kg transmission pole at Madampe, for Ceylon Electricity Board, September 2001 - site inspection, core testing and design check of fractured prestressed concrete transmission pole.
32. Checking of Baur's tenements on Grandpass Road, for A. Baur & Co., October 2001 – site inspection, rebound hammer and core testing, design checking and refurbishment recommendations for 65 year old steel framed building with concrete floor.
33. Survey of deteriorated buildings at Buddhist Girls' School, Mt. Lavinia, for Provincial Engineering Organization (W.P), July 2002 – inspection of chloride induced corrosion affected buildings, and proposing remedial measures.
34. Investigation of cracks at Cardiac Centre, Karapitiya Hospital, for Ministry of Health, October 2002 – inspection and proposing remedial measures for non-structural cracks in operating theatre.
35. Condition Report on Law College Hostel, Rajagiriya, November 2002 – inspection of moisture affected building and proposing remedial measures.
36. Condition Report on Mona Plastics Building at Attidiya Road, Ratmalana, April 2003 – inspection of corrosion (and chloride) affected building, using in-situ corrosion monitoring tests, and proposing remedial measures.
37. Structural assessment of JAIC Hilton Building, for STRAD Consultants, July 2003 – commenting on structural form and performing in-situ tests.
38. Structural appraisal and recommendations for Milco Factory Buildings, Narahenpita, October 2003 – serviceability load testing, structural modeling and recommendations for repair of 50 year old building.
39. Inspection of top surface crack widths on elevated water tank foundations in Ampara district, February 2004 – comparative site inspections and recommendations.
40. Investigation of deteriorated building at Katubedda Bodhiraja Maha Vidyalaya, March 2004 – carbonation, chloride and half-cell potential testing.
41. Structural condition report on Crescat Apartment Building, May 2004 – inspection of structural form, especially for lateral loads.
42. Investigation of fire damage to concrete columns and platform of steam turbine foundation, AES Kelanitissa power plant, June 2004 – visual inspection and core test interpretation.
43. Assessment of fire damage to roof and other structural steel elements – AES Kelanitissa power plant, June 2004 – interpretation of Brinell hardness surveys and modeling of trusses based on deflection surveys.
44. Assessment of extent of damage in house at 23, 40th Lane, Colombo 6, August 2004 for Colombo District Court – crack mapping and measurement of inclination in house affected by adjacent construction.
45. Allowable loads for fabric warehouse and accessory stores, Smart Shirts Ltd, Katunayake EPZ, November 2004 – covermeter survey, modeling and design checking

46. Useful life of Confifi Group Hotels in Beruwela, November 2004 – planning and interpreting of chloride content and carbonation depth data and modeling for service life.
47. Monitoring of valve pedestal movements at AES Kelanitissa Power Plant, May 2005 – interpretation of strain gauge, displacement transducer and temperature readings.
48. Report on condition of IFS R&D Ltd Premises, July 2005 – checking building dimensions against drawings, computer modeling for wind loads and load testing a floor.
49. Report on distress at Secretariat Complex for North West Provincial Council, Kurunegala, July 2005 – commenting on thermal and shrinkage movements in building.
50. Recommendations for minimizing potential cracks in podium level beam casting, October 2005 – recommendations for casting a large beam in two pours.
51. Investigation of Board of Investment Building at 14, Sir Baron Jayatilake Mawatha, Colombo 3, April 2006 – non destructive testing (including for corrosion), coring and chloride level testing of a 100 year old building
52. Inspection of fire damaged Malalasekera Theatre at Nalanda Vidyalaya, Colombo 8, May 2006 – rebound hammer testing and visual inspection.
53. Defects in building at 413, R.A. De Mel Mawatha, Colombo 3 for I-Ron Asia (Pte) Ltd, August 2006 – documentation and classification of defects in a new building.
54. Investigation of Church Hill Reservoir for National Water Supply & Drainage Board, August 2006 – rebound hammer and carbonation testing, crack mapping and finite element modeling.
55. Estimation of useful life of HNB Towers in Colombo 10, November 2007 - visual inspection, limited testing and calculations.
56. Estimation of useful life of Tangerine and Royal Park Hotels in Kalutara, December 2007 – visual inspection, limited testing and calculations.
57. Assessment of fire damaged building at the Kingdom of Raigam Factory, May 2008 – visual inspection, damage classification and costing of repair.
58. Early Formwork Striking at Emperor Residential Development Project, for Singapore Piling, August 2008 – 4 day striking.
59. Assessment of fire damaged building at Kohuwala for the University of Visual and Performing Arts, December 2008 - visual inspection and damage classification.
60. Investigation of Beam Cracks in Proposed Building at Badulla General Hospital, for Daya Construction, December 2008 – diagnosing early age cracking and relating it to high cement content concrete.
61. Distress in Ceylon Electricity Board Power Station at Kukule Ganga, November 2009 – survey measurements at a rock fault and computer modeling of a power station floor slab to match observed cracks with stresses.
62. Inspection of Defects at Sugathadasa Sports Complex Swimming and Diving Pools, July 2010 – visual inspection and proposals for repair.
63. Investigation of damp patches in underground sewerage pump house for Angerlehner, October 2010 – visual inspection and interpretation of test results.
64. Structural assessment of building for Kelaniya University, October 2010 – non destructive testing, durability checks and design checking.
65. Settlement Induced Structural Distress in Narah Factory at Welisara, for Narah Computer Forms, December 2010 – inspection, diagnosis and remedial measures
66. Condition assessment and service life estimation of Grand Hotel, Nuwara Eliya, February 2011 – visual inspection and limited testing of a 100 year old building.
67. Quality of Cast Concrete in Conical Section of Water Tower at Gothatuwa, for China Geo Engineering Corporation – defective concrete assessed via non destructive testing.
68. Inspection of buildings at S. Thomas' Prep School, Kollupitiya, May 2011 – visual inspection and proposals for repair.
69. Structural engineering report on Elphinstone Theatre and Sarasavipaya, May 2011 – visual inspection and proposals for rehabilitation.
70. Structural assessment of Hidayath Shopping Complex, Galle for RPC Construction, June 2011 – visual inspection and design checks.
71. Condition and structural assessment of Gaffoor Building, Colombo Fort, September 2011 – visual inspection, durability testing, design checking and recommendations for rehabilitation for a 125 year old building.

72. Investigation of Floor Slab Cracking at Central Hospital, Colombo 10, September 2011 – visual inspection and remedial measures for shrinkage cracking.
73. Estimating Strength of Concrete in Test Piles at Akuregoda, for Maga Engineering, September 2011 – estimating strength from test cube results.
74. Investigation of settlement related cracking at Ascon Residencies, October 2011 – visual inspection, interpretation of survey results and proposals for remediation.
75. Structural condition report for Central Point Building for Central Bank of Sri Lanka, November 2011 – visual inspection, supervision of non-destructive testing, interpretation of results and recommendations for rehabilitation of a 100 year old building.
76. Cracking in Swimming Pool at Emperor Tower, Colombo 3, for Sanken Construction, January 2012 – leaking due to non-structural cracking.
77. Demolition of Tilly’s Beach Hotel, January 2012 – safety inspection and propping recommendations for fire damaged structure.
78. Cracking in Tokyo Cement Company Silo at Colombo Port, February 2012 – inspection and recommendations.
79. Structural audit of Taj Samudra Hotel, March 2013 – visual inspection and limited testing.
80. Structural integrity audit of Main Building at Colombo Swimming Club, April 2013 – visual inspection and limited testing.
81. Structural recommendations for Dialog Hantane building, April 2013 - visual inspection and proposals for remedying defects.
82. In-situ Concrete Strength for Office Complex at 33 Park Street, Colombo 2, for Nawaloka Construction, June 2014 – interpreting non-destructive test results.
83. Corrosion Analysis of Reinforcement in Submerged Piles of Altair Project, for Sharpooji Pallonji Lanka Ltd, November 2014 – checking the effect of corrosion over a 120 year lifespan on the capacity of piles with exposed reinforcement.
84. Structural Evaluation of Buildings in Factory 1 to 3 of Smart Shirts Ltd, November 2014 – visual inspection and spot design checks.
85. Defects in Tunnel at Cinnamon Grand Hotel, for Tudawe Brothers Ltd, March 2015 – the explanation of shrinkage cracks with respect to crack distribution steel provided.
86. Condition Report of Lanka Hospitals Building at Colombo 5, for Lanka Hospitals Ltd, June 2015 – visual inspection and spot design checks for a 14 storey building.
87. Comments on HKN Joint Venture Requests for Amendments to the Waterfront Project Specifications, for HKN Joint Venture, October 2015 – regarding RC details and concreting operations.
88. Suspect Concrete in Piles for Lanka Piling, Battaramulla, for ICC Readymix, February 2016 – using extracted cores to establish in-situ grade after failure on control test cubes.
89. Cracking in Slab Segment at Nagananda International Institute for Buddhist Studies, Kelaniya, for URO Structural Consultants, March 2016 – restrained shrinkage.
90. Cracking in Roof Slabs at Calamansi Villas, for URO Structural Consultants, April 2016 – drying shrinkage.
91. Suspect Concrete in Collection Tank at Base Hospital, Warakapola, for Waterman Environmental Systems, April 2016 – interpreting cube test results for strength and durability.
92. Cracking in Columns at Proposed Shangri-La Hotel, for China harbour Engineering Corporation, May 2016 – explaining diagonal and vertical cracking in wide columns/shear walls.
93. Cracks in Post tensioned slab at Sierra Tower, for Sierra Readymix, May 2016 – causes and remedial measures.
94. In-situ Concrete Quality of Raft Slab in Thalawathugoda, for Access Engineering, July 2016 – assessing the in-situ concrete quality using test cubes and extracted cores.
95. Thermal Cracking in Pile Cap and Other Issues at One Colombo Project, Colombo 2, for RN Construction, July 2016 – pile cap cracking, testing plan and criteria for concrete compliance.
96. Formwork System for One Colombo Project, Colombo 2, for RN Construction, July 2016 – formwork system for striking in 3 days.
97. Issues at Urban Regeneration Project at Madampitiya Road, for Sanken Construction, September 2016 – movement joint and lightweight concrete block infill walls.
98. Corrosion of Reinforcement at Bottom of Pile on Southern Expressway Extension (Matara to Beliatta), for CATIC-SEEP, September 2016 – modelling and interpretation.

99. Simultaneous Concrete Placing for Retaining Wall and Columns using Grade 60 Concrete, for Hyundai Engineering & Construction Co., October 2016 – checking design for early age thermal contraction.
100. Influence of Pile Boring Vibrations on Concrete Casting, for ICC Construction, January 2017 – checking influence of vibration on fresh concrete.
101. Cracks in Proposed Pre-Clinical Building at Colombo Medical Faculty, for ICC Construction, January 2017 – causes for shrinkage cracking and remedial measures.
102. Delayed Setting of Concrete Slab Portion at Proposed Slave Island Re-development Stage II Community Housing, for Nawaloka Construction, January 2017 – investigation and interpretation.
103. Cracking in Columns of Proposed Rabindranath Tagore Auditorium at Ruhuna University, for Link Engineering, February 2017 – construction stage corrosion cracking from stopped ends of columns.
104. Reinforcing Bar Corrosion prior to Concreting of Raft Slab for Nandasura Hotel and Apartment Complex in Maldives, for URO Structural Consultants, February 2017 – exposed steel corrosion.
105. Structural Audit of Hatton National Bank Building at 10 R.A. de Mel Mawatha, Colombo 3, April 2017 – visual inspection and design checking.
106. Corrosion in Second Floor Slab at Factory 1 of Smart Shirts Ltd, May 2017 – inspection and remedial measures.
107. Formwork Striking Time for Park Road Project, for Nawaloka Construction, June 2017 – striking time of 7 days.
108. Suspended Basement Floor Cracks in Jaya Raja City Mixed Development, for Orient Construction and NBRO, July 2017 – inspecting of cracking due to shrinkage and possible under design.
109. Cracking in Precast Piles for Transmission Line Tower Foundations, for Engineering & Laboratory Services, August 2017 – inspection and remedial measures.
110. Concreting of Ground Floor Column Pockets at Visakha Vidyalaya without adequate cleaning, for Nawaloka Construction, August 2017 – sawdust at joints, remedy using carbon fibre wrapping.
111. Segregation of Concrete in Area of Car Park of at Havelock City Phase 3 Development, for ICC Construction, September 2017 – inspection, core testing and remedial measures.
112. Structural Audit of John Keells Whittall Boustead Complex at Vauxhall Street, Colombo 2, for John Keells Ltd, October 2017 - visual inspection and design checks.
113. Structural Audit of John Keells Mackinnon McKenzie Building at York Street, Colombo 1, for John Keells Ltd, October 2017 – visual inspection and design checks.
114. Cracking in Suspended Basement of Seventh Sense Apartments at Gregory’s Road, Colombo 7, for John Keells Ltd, October 2017 – shrinkage cracking in post-tensioned slabs
115. Floor slab cracks in Dialog Building at Piliyandala, November 2017 – tile popping and other defects in floor slabs.
116. Spontaneous Fracturing of Glass Panes at Hyatt Regency Colombo, for Canwill Holdings, December 2017 – inspection, ascertaining causes and tentative prediction.
117. Variability in Test Results for Grade 50 Mix Design, for Engineering & Laboratory Services, January 2018 – interpreting test cube results and explaining the difference between validity and compliance for control test cubes.
118. Water Leakage from Basement of Office Building for Analytical Properties at Elvitigala Mawatha, for RN Constructions, January 2018 – causes and remedies for leakage from deep basement.
119. Top surface cracks in MRL Project at Park Road, Colombo 5, for Tudawe Brothers Ltd – plastic shrinkage cracking.
120. Cracks in Level 14 Slab in Building 5 of Waterfront Project, for Access Engineering, March 2018 – the explanation of early age cracking.
121. Construction Review of Cold Store Floor Concreting for Colombo Ice Company, for Saro Weerasuriya Associates, March 2018 – the decision regarding the use of air entrainers and construction sequence for a proposed cold room floor.
122. Review of rectification report for Methodist Headquarters, for Methodist Church Sri Lanka, March 2018 – rectification of distress due to additional unplanned floor.
123. Cracks in 5th floor slab at Baseline Residencies, Colombo 5, for Sierra Readymix, April 2018 – plastic shrinkage cracking.
124. Suspect Concrete in Shear Wall of Destiny Tower II at Kompannavidiya, for ICC Readymix, April 2018 – using rebound hammer testing for in-situ strength following control cube test failure.

125. Distress in Buildings at 578 & 580 Galle Road, Colombo 3 due to Adjacent Construction, for Plate', June 2018 – ascertaining extent of damage for a complex of buildings.
126. Suspect Test Cube Results from In-situ Piles at Ocean Front Apartment Project, Galle, for ICC Construction, June 2018 – interpretation of cube test results.
127. Cracks in Post-Tensioned Beams for Section 2 Package C of Central Expressway, for MG Consultants, June 2018 – investigation and remedial proposals for cracking near anchor block.
128. Cracking in Concrete Drains at Water Treatment Plant at Attanagalle, for China Machinery & Engineering Corporation, July 2018 – establishing causes of cracking and proposing remedial measures.
129. Gaps between Column Lifts in Public Officer Accommodation Building at Gampaha, for Western Provincial Council Engineering Organization, July 2018 – ascertaining as-constructed safety and proposing remedial measures.
130. Condition Report on YWCA Building at Rotunda Gardens, Colombo 3, August 2018 – visual inspection and remedial measures.
131. Assessment of Potential Distress to Gallery Café Buildings from Proposed Adjacent Construction, for Tudawe Brothers Ltd, September 2018 – effect of adjacent excavation.
132. Condition Assessment of Paradise Road Warehouse on Vauxhall Street, September 2018 – 100 year old steel, timber & masonry building.
133. Analysis of Low Cube Test Results in Proposed Ministry of Health Head Office Building at Castle Street, Colombo 8, for ICC Readymix, October 2018 – rebound hammer testing and design checking.
134. Cracking in Swimming Pool Area in Proposed Nasandhura Hotel and Apartment Complex, Maldives, for URO Structural Consultants, October 2018 – restrained drying shrinkage.
135. Honeycombing in Transfer Floor Beams for Proposed Park Inn on Galle Road, Colombo 3, for Tudawe Brothers Ltd, December 2018 – investigation and carbon fibre based repair proposal for reinforcement congested transfer beams with honeycombing and reduced cover.
136. Plastic stage cracking in Residential Building at 48C Suvisuddharama Road, Colombo 6, for Sierra Readymix, January 2019 – plastic shrinkage.
137. Delayed Setting of Fourth Floor Slab Portion at NEMRA 3 Building, Wattala, for JJ Enterprises, February 2019 – investigation and proposed testing and remedial measures.
138. Plastic Shrinkage Cracking on Floor at ISF Factory Building, Peliyagoda, for URO Structural Consultants, February 2019 – causes and remedial measures.
139. Defects in Crescat Mall and Monarch Residencies, Colombo 3, for John Keells Ltd, March 2019 – various defects in reinforced concrete slabs.
140. Spontaneous Popping up of Floor Tiles at Sethsiripaya Stage 2, for Urban Development Authority, March 2019 – structural form and tile size.
141. Cracking in Water Sump at Emperor Tower, Colombo 3, for John Keells Ltd, May 2019 – investigation of sump with insufficient thermal crack control reinforcement.
142. Opinion on Shear Design for Strip Foundation of Expressway Abutment, STRAD Consultants, May 2019 – effect of overburden.
143. Leakage from Roof of Mount View Residencies Apartments on Galle Road, Ratmalana, for Mount View Management Corporation, November 2018 – water ponding in roof drains and service ducts.
144. Cracking in Pump House PH-1 for Potable and Fire Water at Port City Project, for China Harbour Engineering Corporation, January 2020 – inspection and remedial measures for shrinkage cracks.
145. Leakage from Reservoir and Cracking in Thin Elements at Water Treatment Plant at Attanagalle, for China Machinery & Engineering Corporation, February 2020 – ascertaining causes and proposing remedies for cracking and leakage from reservoir and other structures.
146. Construction of Aprons at Bandaranaike International Airport: Use of CTBC, for Hazama Ando Corporation, May 2020 – commenting on feasibility of using CTBC rather than lean concrete
147. Durability of Suspect Piles in Abutments of Footbridge FB01 in Port City Project, for China Harbour Engineering Corporation, June 2020 – demonstrating that submerged overdesigned piles with compromised cover could still carry expected loads over 120 years.
148. Water Tightness Testing of Port City Potable Water Reservoir Report, for China Harbour Engineering Corporation, July 2020 – arguments for using saline water for water tightness testing.
149. Cracks in Sri Lanka Army Multi-Facility Complex, for Sri Lanka Army & NBRO, July 2020 – inspection of shrinkage cracking and proposing remedial and preventive measures.

150. Leakage from Basement Slabs at Emperor Tower, Colombo 3, for John Keells Ltd., July 2020 – investigation of basement at considerable depth.
151. Cracks in Columns at the Movement Joint – Manning Market Relocation Project, Peliyagoda, for Maga Construction, October 2020 – diagnosing column cracking due to incomplete movement joint and proposing a method for eliminating the joint with continuous construction.
152. Tile Popping in Ground Floor of Parliament Complex, for Sri Lanka Parliament, October 2020 – investigation of causes and proposal of remedial measures.
153. Concrete Cracking at Velana International Airport, Maldives, for ELS International, January 2021 – explaining causes for plastic shrinkage cracking and suggesting remedial measures.
154. Inadequate Cube Test Results at Central Expressway Project, for Nawaloka Construction, January 2021 – interpreting cube and core test results.

P. PUBLICATIONS ON EDUCATION, SCIENCE & TECHNOLOGY

1. DIAS, W.P.S. The privatisation of higher education, The Island Newspaper.
2. DIAS, W.P.S. Problems faced by the nation are tied to education. The Island, Wednesday 27 March, 1991, pp. 8-9.
3. DIAS, W.P.S. Education, Employment and English. Ceylon Daily News, Monday 29 July, 1991, p.4.
4. DIAS, W.P.S. et al. Affiliated University Colleges - the other side. The Island, Friday 11 September, 1991. p.8.
5. DIAS, W.P.S. Some thoughts on technical and vocational education in Sri Lanka. IESL News, Vol. XIII, No. 2, December 1992, pp. 3-5.
6. University based engineering research and local industry. Seminar on "Utilisation of Engineering Concepts and Research in Local Industry", Institution of Engineers, Sri Lanka, October 1993.
7. Marrying research and industry - a vital task, Ceylon Daily News, Thursday 13 and Friday 14 January, 1994.
8. Are Engineers Scientists? Ceylon Daily News Supplement for University of Moratuwa Silver Jubilee, February 14, 1997.
9. The partial myth of scientific objectivity. The Island, 16 June 1998.
10. DIAS, W.P.S. Science in Sri Lankan Universities. Ceylon Daily News, 1999.
11. Promoting Science and Technology in Sri Lanka, The Island, 3 January 2003.

Q. (NON-TECHNICAL) VOLUNTARY SERVICE

1. Council Member, Fellowship of Christian University Students (FOCUS), late 1980s, 1993 to 2000 (Chairman, late 1980s and 1995-1997) and 2005 to 2015.
2. Board Member, Lanka Evangelical Alliance Development Society (LEADS), late 1980s – an organization involved in refugee care and social upliftment of poor communities.
3. Member, Committee for Rehabilitation of Jaffna Public Library (damaged by fire and blast in ethnic conflict, to be rehabilitated as a symbol of reconciliation), 1996 to 1999.
4. Member, Standing Committee, Anglican Church Diocese of Colombo, 2001 to 2005.
5. Member, Board of Governors, S. Thomas' College, Mt. Lavinia, 2002 to 2010.
6. Member, Board of Habitat for Humanity, Sri Lanka, from 2015 to date.