
ISHANI DIAS(PhD)

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EDUCATION

PhD in Civil Engineering

Kansas State University, Kansas, USA

2015

Master of Science in Civil Engineering

University of Moratuwa, Sri Lanka

2012

Bachelor of Science in Engineering

University of Moratuwa, Sri Lanka

2010

PROFESSIONAL QUALIFICATIONS

- AMIESL: Associate Member – Institute of Engineers, Sri Lanka
- CMILT: Chartered Member – The Chartered Institute of Logistics and Transport
- AEng: Associate Engineer – Engineering Council Sri Lanka
- MSLAAS: Member of SLAAS – Sri Lanka Association for the Advancement of Science

WORK EXPERIENCE

Senior Lecturer - Civil Engineering: Kotelawala Defence University (KDU), Ratmalana, Sri Lanka

March 2016 to date

- Modules taught for MSc in Civil Engineering (CE):
 - Highway design and transportation engineering
- Modules taught for MBA in Transportation Logistics
 - Research methodology
 - Transport management
- Modules taught currently for BSc in Engineering - Civil Engineering:
 - Fundamentals of transportation engineering
 - Highway engineering
 - Traffic engineering
 - Fundamentals of civil engineering
 - Research Methodology
- Other modules taught in the past (2016-2018)
 - Surveying 1 and 2
 - Building construction and materials
 - Industry visits and report writing
- Modules taught for BSc in Transportation Management – Logistics:
 - Transportation data collection and analysis
- Final year Individual Research Project Coordinator for Civil Engineering (2017/2018, 2020/2021)

Visiting Lecturer – MEng Transportation Engineering, University of Moratuwa

- Road Safety

June, 2019

Visiting Lecturer – Army School of Logistics – Logistic Staff Course program

- Transportation Management

2016, 2017, 2019, 2020

Visiting Lecturer – Maritime and Naval Academy - Trincomalee – Long Logistic Management Course

- Transportation Management

2019

Visiting Lecturer – Transport Logistics Management – Faculty of Management, Humanities and Social Sciences, KDU

January – July 2012

- Transport demand analysis and modeling, Transport data collection and analysis

Visiting Lecturer - Department of Civil Engineering, Faculty of Engineering, KDU J

January – July 2012

- Fundamentals of Transportation Engineering

Graduate Research/ Teaching Assistant: Kansas State University - Manhattan, Kansas, USA

August 2012 to December 2015

- Completed researches:
 - Work zone crash analysis and modeling to identify the factors affecting the work zone crash severity and frequency
 - Evaluating a low cost countermeasure to reduce red light running and Identification of the characteristics of red light running
 - Determining the effectiveness of shoulder rumble strips to reduce run off road crashes
- Teaching Assistant/ Grader in:
 - Highway engineering, planning and management
 - Route location and design

Junior Traffic Engineer (Part-time): Consulting Engineers & Architects Associated (Pvt.) Ltd.

January – May 2012

- Traffic count (MCC) surveys were coordinated for the rehabilitation of highways in the Northern Province - Sri Lanka.
- Planning, data collection and analysis were carried out for origin - destination (OD) survey for road rehabilitation projects.

Graduate Research Assistant (Part-time): World Health Organization - Colombo, Sri Lanka

October – December 2011

- The National Action Plan was prepared in accordance with the Global Plan developed by UN & WHO, in order to improve the road safety in Sri Lanka during next decade (Decade of Action for Road Safety 2011-2020).
- Seatbelt and helmet usage surveys were coordinated in all the provinces in Sri Lanka as per the requirement of National Safety Council. Further, analysis was done and conclusions were made.

Graduate Research Assistant: University of Moratuwa - Sri Lanka

July 2009 to October 2011

- Instructed students in short courses on Highway Material Testing – Students were professionals working in the related industry and government agencies.
- Instructed certificate courses in Road Safety and Infrastructure Design – Students were chief traffic police officers in Colombo Sri Lanka and other professionals working in the related industry and government agencies.
- Performed a traffic calming study for a bypass of a main highway in a tourist city – Galle Road, Hikkaduwa, Sri Lanka

WORK INVOLVED

- Revision of the Decade of Action for the National Road Safety Action Plan. This is jointly carried out with the National Council for Road Safety, World Health Organization and the University of Moratuwa. *2011, 2015 to date*
- Internal Traffic Impact Assessment (TIA) for the Colombo Port City – Forecasting of future traffic scenarios including trip generation and attractions of the proposed land use Masterplan *2016 -2017*
- External traffic impact assessment for the rock haulage phase of Colombo Port City – Traffic impact assessment for the number of truck trips and proposing the optimum conditions to minimize damage to roads and to minimize disturbance for the regular traffic. *2016*
- Traffic Impact Assessment (TIA) -2012 Traffic impact assessments were done for many proposed developments including multi storied housing developments, fuel stations, office complexes, and shopping complexes, etc. within the Colombo city as well as in other areas in Sri Lanka. *2010/2011*
- Feasibility study of Matara – Katharagama proposed railway (114km section) *2010*

LEADERSHIP AND ORGANIZATION MEMBERSHIPS

- Quality Assurance Cell of the Faculty of Engineering of KDU
 - Chairperson *July 2019 to date*
 - Committee member *2016 to 2019*
- Department Representative – Curriculum Development Committee, Faculty of Engineering, Kotelawala Defence University *2020*
- Department Representative – Engineering Faculty Information Technology Cell, Kotelawala Defence University *2018,2019*
- Department Representative – Engineering Faculty Research Cell, Kotelawala Defence University *2018*
- Women in Transport and Logistics (WiLAT)
 - Executive Committee member *2019*
- Highway Engineering Society (HES) of Sri Lanka
 - Secretary *2018/2019/2020*
 - Assistant secretary *2017-2018*
 - Executive committee member *2016-2017*
- Advisor for Student Chapter of Highway Engineering Society for Kotelawala Defence University, Sri Lanka *2017 to date*
- Sri Lanka Association for the Advancement of Science (SLAAS)
 - Secretary – Committee for Popularization of Science *2020*
 - Executive member – Section C *2019*
 - Rapporteur – Section C *2018*
 - Member – Committee for Popularization of Science *2018/2019*
- Institute of Transportation Engineers – Student Chapter for Kansas State University, USA
 - President *2014/2015*
 - Secretary and treasurer *2013/2014*
- Sri Lankan Students Association (2014) – Manhattan, Kansas, USA
 - Public relations officer *2014*
 - President *2013*

PUBLICATIONS

- [1] T. W. K. I. M. Dias and K. A. S. Dilruk, "Evaluating the Influence of Countdown Timers at Signalized Intersections on Red-Light Running," in *Proceedings of Kotelawala Defence University International Research Conference 2020*, Ratmalana, 2020.
- [2] T. W. K. I. M. Dias and W. P. D. A. Weerakkody, "Evaluating Driver Speeding at Traffic Signal Lights During the," in *Proceedings of Kotelawala Defence University International Research Conference 2020*, Ratmalana, 2020.
- [3] T. W. K. I. M. Dias and N. H. A. R. S. Ekanayake, "Evaluating the Efficiency of a Traffic Signal Light over a Traffic Policeman," in *Proceedings of Kotelawala Defence University International Research Conference 2020*, Ratmalana, 2020.
- [4] A. Suraweera and I. Dias, "Evaluating Scenarios for Railway Transportation of Coal from Trincomalee to Chilaw," in *IESL Annual Sessions 2019*, Colombo, 2019.
- [5] M. J. De Silva and T. W. K. I. M. Dias, "Necessity of Providing Training on Expressway Driving for Drivers in Sri Lanka," in *113 th IESL Annual Sessions at Institution of Engineers Sri Lanka*, Colombo, 2019.
- [6] G. J. S. J. Amarasinghe and T. W. K. I. M. Dias, "Traffic Study and Possible Solutions for Traffic Congestion in Rathnapura Town," in *IESL Annual Sessions 2019*, Colombo, 2019.
- [7] J. A. D. Weerasinghe and T. W. K. I. M. Dias, "Evaluating the pedestrian behavior at uncontrolled mid-block pedestrian crossings," in *12th International Research Conference - Kotelawala Defence University*, Ratmalana, 2019.
- [8] R. K. T. K. Ranawaka, H. R. Pasindu and T. W. K. I. M. Dias, "Evaluation of causal factors related to accidents in low volume roads," in *International Conference on Road and Airfield Pavement Technology*, Kuala Lumpur, 2019.
- [9] M. J. De Silva and T. W. K. I. M. Dias, "Investigating improvements for training on expressway driving for drivers in Sri Lanka," in *International Conference on Civil Engineering and Applications - ICCEA2019*, Moratuwa, 2019.
- [10] A. Shams, S. Dissanayake and I. Dias, "Safety effects of adding bypass lanes at rural two-lane, two-way unsignalized intersections," *Journal of Transportation Safety & Security*, vol. 12, no. 6, pp. 727-745, 2020.
- [11] S. A. I. A. Suraweera and T. W. K. I. M. Dias, "Smart city concept for Sri Lanka; producing energy using footsteps," in *Proceedings of the Wayamba University International Conference, Sri Lanka*, Kuliyaipitiya, 2018.

- [12] J. M. S. B. Jayasundara and T. W. K. I. M. Dias, "An overview of motorcycle crashes in Sri Lanka with a comparison between public opinion and police crash data," in *Transportation Research Forum 2018*, Moratuwa, Sri Lanka, 2018.
- [13] S. Fernando and T. W. K. I. M. Dias, "Evaluating the level of passenger satisfaction of public bus transportation systems in Sri Lanka," in *International Conference on Advances in Highway Engineering & Transportation Systems (ICAHETS – Sri Lanka)*, Negombo, Sri Lanka, 2017.
- [14] S. A. I. A. Suraweera and T. W. K. I. M. Dias, "Suggestion to improve Solutions Discussed in Western Region Megapolis Planning Project for Traffic Congestion," in *Transport Research Forum*, Negombo, 2017.
- [15] T. W. K. I. M. Dias, H. L. K. Perera, J. M. S. J. Bandara and K. S. Llm, "Review of Internal and External Transportation Issues of Artificial City Developments: Port City, Colombo, Sri Lanka," in *Australasian Transport Research Forum 2016At: Melbourne, Australia Volume: ATRF*, Melbourne, Australia, 2016.
- [16] I. Dias and S. Dissanayake, "Comparison of factors associated with work zone crash severity between nighttime and daytime," in *TRB 95th Annual Meeting Compendium of Papers*, Washington, D.C., 2016.
- [17] T. W. K. I. M. Dias and S. Dissanayake, "Comparison of nighttime and daytime crash characteristics associated with severity of work zone crashes using severity models," in *Mid-Continent Transportation Research Symposium*, Ames, Iowa, USA, 2015.
- [18] I. Dias and S. Dissanayake, "Effectiveness of Retro-reflective Signal Backplates as a Countermeasure to Reduce Red-Light-Running Violations," in *TRB 94th Annual Meeting Compendium of Papers*, Washington, D.C., 2015.
- [19] I. Dias and S. Dissanayake, "Characteristics of Red-Light-Running Crashes and Effectiveness of Retro-Reflective Signal Back plates in Reducing Red-Light-Running Violations," *Journal of Advances in Transportation Studies-An International Journal*, no. 34, pp. 19-32, October 2014.
- [20] I. Dias and S. Bandara, "Development of an evaluation criterion to assess pedestrian facilities in urban environments," in *54th Annual Transportation Research Forum (TRF)*, Annapolis, 2013.
- [21] T. W. K. I. M. Dias, "Evaluation of pedestrian facilities in urban environments," in *International Conference on Advances in Highway Engineering & Transportation Systems*, Mount Lavinia, 2011.
- [22] I. Dias and S. Bandara, "Development of an evaluation criterion to assess pedestrian facilities in urban environments using walkability measures," in *15th International Forestry and Environment Symposium of University of Sri Jayawardenepura*, Colombo, 2010.

PUBLIC FORUMS AN INVITED TALK:

- “Vulnerable Road User Safety” – Webinar Series on Road safety organized by CILT – planned to be conducted on *5th of January 2021*
- “Protecting children from road crashes” at Workshop on Road Safety conducted by CILT in collaboration with SLAAS Section C *2019*
- “Identification of the characteristics of red-light running crashes” at KState Research Forum - Manhattan, Kansas, USA *2014*

EMPLOYMENT RECORD

Period	Employing organization and title/ position. Contact information for references*	Country	Summary of activities performed relevant to the assignment
2016 - 2017	CHEC Port City Colombo (Pvt.) Ltd. Freelancing Transportation Planner/ consultant team Reference: Prof. Saman Bandara Tel.: +94 777688900 Email: bandara@uom.lk	Sri Lanka	Internal Traffic Impact Assessment (TIA) was conducted for the Colombo Port City – Forecasting of future traffic scenarios including trip generation and attractions of the proposed land use masterplan.
2016	CHEC Port City Colombo (Pvt.) Ltd. Freelancing Transportation Planner/ consultant team Reference: Prof. Saman Bandara Tel.: +94 777688900 Email: bandara@uom.lk	Sri Lanka	External traffic impact assessment was carried out for the rock haulage phase of Colombo Port City. Traffic Impact Assessment for the number of truck trips and proposing the optimum conditions to minimize damage to roads and to minimize disturbance for the regular traffic.
2012 - 2016	Kansas State University/ Graduate Research Assistant Reference: Prof. Sunanda Dissanayake, Tel: +1 (785) 532-1540 Fax: +1 (785) 532-7717 Email: sunanda@ksu.edu	USA	Carried out road work zone related motor vehicle crash analysis to identify factors affecting those. Evaluating what are the causes that increase the injury severity and motor vehicle crash frequency at or near work zone areas. Also studied the standards of work zone warning measures to help the drivers to smoothly maneuver through a road work zone. Also carried out an experimental analysis with the help of Manhattan, KS, traffic Police and the City Traffic Division to test reflective traffic signal backplates to reduce the red-light-running violations. Submitted technical reports to the funding agency on the findings. Both the projects were funded by the Mid-America Transportation Center.
2012	Consulting Engineers and Architects Associated (Pvt) Ltd Junior Traffic Engineer References: Prof. Saman Bandara and Mr. Anura Gamage (anura.cea@gmail.com)	Sri Lanka	Worked for the Northern Road Connectivity Project (NRCP) in collecting traffic volume data by site visits and by organizing manually classified traffic counts. Also, planning, data collection and analysis were carried out for origin - destination (OD) surveys.