

Transport Research Forum 2016



Abstracts

24th August 2016
Colombo, Sri Lanka

Transportation Engineering Division
Department of Civil Engineering
University of Moratuwa

Table of Contents

Keynote Speakers' Profiles	i-ii
----------------------------	------

Session 1: Highway Construction and Pavement Management

1.1	Sustainable Concrete Mix Design for Interlocking Concrete Block Pavers (ICBP)	1
	H. A. C. K. Hettiarachchi and Prof. W. K. Mampearachchi	
1.2	Cost Effective Roughness Computation Method using Smart Phones	3
	D. E. Gamage , Dr. H. R. Pasindu and Prof. J. M. S.J. Bandara	
1.3	Improvement of Coastal Sandy Soil by Blending the Local Uoori Clay for Subgrade Embankment and Sub Base Construction Experimental Study	5
	K. Kowsikan and Prof. W. K. Mampearachchi	
1.4	Development of Expanded Clay as Internally Curing Concrete Aggregate	7
	M. M. H. W. Bandara and Prof . W. K. Mampearachchi	
1.5	Minimize the Nearby Structure Damage Issues in Road Construction.	9
	N. H. S. Chandana and Prof .W. K. Mampearachchi	
1.6	Developing Prioritization Indexes for Provincial Road Networks using AHP	11
	H. D. S. Gunasoma and Dr. H. R. Pasindu	

Session 2: Traffic Engineering and Road Safety

2.1	Development of a Guideline for Traffic Signals at Individual Intersections	13
	N. K. Jayasooriya and Prof. J. M. S. J. Bandara	
2.2	Motorcycle Helmet Use in Southern Sri Lanka: An Observational Study	15
	O. H. D. C. Gunathilaka and Dr. N. Amarasingha	
2.3	Traffic Impacts at Dehiwala Flyover on Level of Service of the Intersection: Case Study	17
	N. N. Paulusz and Dr. R. M. N. T. Sirisoma	
2.4	Delay Analysis at a Signalized T Intersection	19
	A. Vajeeran and Dr. G. L. D. I. De Silva	
2.5	In depth Analysis of Southern Expressway Accidents	21
	H. I. M. J. T. U. Dharmasiri and Prof. W. K. Mampearachchi	

2.6	Develop a Sustainable Model for Implementing Driver Improvement Points(DIPS) in Sri Lanka A. L. K. M. M. P. Bandara and Prof. J. M. S.J. Bandara	23
2.7	Systematic Ratings of Accident Prone T – Intersections on National Highways A. Arulrasa and Prof. W. K. Mampearachchi	25
2.8	Investigation of Accidents in Colombo Katunayake Expressway W. R. G. M. Bandara and Dr. H. R. Pasindu	27

Session 3: Public Transport and Transportation Systems

3.1	Formulation of a Rapid Transit Route Network for Colombo - K. Wimalsurendra, Dr. G. L. D. I. De Silva ,Dr. R. M. N. T. Sirisoma and Prof. J. M. S. J. Bandara	29
3.2	Suitability of Light Rail Transit (LRT) and Monorail for Western Province, Sri Lanka W. Abewickrema and Dr. G. L. D. I. De Silva	31
3.3	A Sustainable Financing Mechanism for Urban Rail Projects: Case Study in Colombo, Sri Lanka S.Somawardhana and K.Wimalsurendra	33
3.4	Micro-Simulation for Airport Curbside and Roadside Operations at BIA P. A. S. Udayanga and Dr. H. R. Pasindu	35
3.5	Waterway Transportation – An Alternative Mode for Reducing the Urban Traffic Congestion (A Case Study of Colombo City Area) S. W. M. P. Senavirathne, Dr. P. C. P. De Silva and Prof. J. M. S. J. Bandara	37
3.6	Assessment of Service Quality at Bandaranayake International Airport, Katunayake W. M. I. S. Wendakoon and Dr. H. R. Pasindu	39
3.7	Logit Choice Model for a Passenger Boat Service in the Wellawatte Canal P.Sutharman and Dr. G. L. D. I. De Silva	41

Session 4: Transport Planning

- 4.1 Developing a PECAS Spatial Economic Model for Sri Lanka: Opportunities and Challenges 43
S. M. P. M. Premasiri and Dr. G. L. D. I. De Silva
- 4.2 Applicability and Effectiveness of the Park And Ride System for Kandy City 45
J. M. A. I. Karunadasa and Dr. H. R. Pasindu
- 4.3 Examine Sri Lanka Institute of Institute Technology Students Travel Pattern - A Hierarchical Tree-Based Regression Model to Student's Mode Choice 47
D. P. Attanayaka

Session 5: Highway Planning

- 5.1 The Usage of Remote Sensing and Other Geospatial Methodologies to Assess and Manage Road Infrastructure 49
C.S. De Silva, Dr. P.C.P. De Silva and Prof. J.M.S.J. Bandara
- 5.2 Estimation of Vehicle Kilometer Travelled in Southern Province 51
T. D. Weerasekera and Dr. N. Amarasingha