



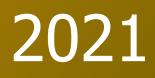
Research Leads to Advancement







## Transport Research Forum





UNIVERSITY OF MORATUWA

DEPARTMENT OF CIVIL ENGINEERING TRANSPORTATION ENGINEERING DIVISION

# Transport Research Forum 2021



## Abstracts

### 28<sup>th</sup> and 29<sup>th</sup> October 2021 University of Moratuwa, Sri Lanka

Transportation Engineering Group Department of Civil Engineering University of Moratuwa

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#### Introduction

Transport Research Forum (TRF) is an annual conference organised by the Transportation Engineering Division of the Department of Civil Engineering, University of Moratuwa. The prime objective of this conference is to create a platform for researchers in the transportation field to build up their research career and to share their research findings with other colleagues and the industry. Practitioners, researchers and academics including a number of international experts in the areas of Highway Engineering, Transportation Engineering and Planning are the participants for this event. Representatives from the industry and the related government institutions are also invited every year.

Department of Civil Engineering conducted the first ever Sri Lanka Transportation Forum in 1983 and since late 90's the Transportation Engineering Group have organised many Transport Research Conferences at local and international level. Later, the Transport Research Forum (TRF) was established and two conferences were held initially and since 2010 TRF was held consecutively every year. Therefore, TRF 2021 is the 14th Transportation Research Forum conducted by the Transportation Engineering Division. Many of the research findings presented in Transport Research Forum is to come up with solutions to address transport related problems in the country and disseminate to the industry. Last year (2020), TRF has achieved a great milestone by publishing its selected proceedings (full-papers from selected studies presented at TRF 2020) in the IESL 'The Engineer' journal as a special edition.

#### Message from the Conference Chair

#### Prof. W.K. Mampearachchi University of Moratuwa



As the Chairperson of the research committee, I am delighted and honoured to bring this message to the Transportation Research Forum 2021.

We the Transportation Engineering Group, have decided to hold this prestigious conference as a virtual conference for the second consecutive year due to the COVID-19 pandemic situation.

I hope that this conference will allow the participants a productive discourse. Our technical program is rich and varied with Keynote speeches from expertise in foreign countries and around 30 technical papers split between 2 afternoon sessions on October 28<sup>th</sup> and 29<sup>th</sup> in year 2021. Some of the underlying issues in the transport sector in Sri Lanka will be covered in-depth in our conference, by our invited speakers and guest speakers. I extend my heartfelt appreciation to them.

As a conference chair, I know that the success of the conference depends ultimately on the many people who have worked with us, in planning and organizing the conference. I take this opportunity to acknowledge the support given by the Vice-Chancellor, Prof. Niranjan. Gunawardana and our Dean, Prof. Nalin Wicramarachchi, who have a very clear desire to upgrade research in the community in which we live in.

In particular, I thank the committee for their wise advice and brilliant suggestions for organizing the conference. All recognition should go to the committee members who have all worked extremely hard on the details of important aspects of the conference programs. A note of appreciation to the academia and industry partners for their thorough and timely reviewing of the papers.

Most of all, I thank you, the presenters, for enriching the conferences by your presence. As is a tradition with the conferences, I hope you will enjoy the content, new fellowships, get new ideas, and above all, have a great deliberation.

On behalf of the Conference Committee, we're looking forward to seeing you at the virtual conference.

#### **TRF 2021 Organising Committee**

#### **Conference Chair**

Prof. W. K. Mampearachchi

#### **Conference Secretary**

Dr. H L K Perera

#### **Committee Members**

Prof. J M S J Bandara Dr. H R Pasindu Dr. G L D I De Silva

#### **Supporting Staff**

Mrs. G.A.N. Gurusingha Mrs. G.N. Wijekoon Mrs. Melani Jayakody

#### **Reviewers**

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