

Award-winning paper in 2018

Papers published in *Municipal Engineer* are eligible for awards from the Institution of Civil Engineers. Papers from any of the ICE journals can be nominated for several awards. In addition, each journal has awards dedicated to their specific subject area.

On Friday 4 October 2019, ICE president Andrew Wyllie presented an award to the following papers published in *Municipal Engineer* in 2018. The editorial panel nominated their best papers and an awards committee chaired by Robert Armitage allocated the awards.

Mokshagundam Visvesvaraya Award

The Mokshagundam Visvesvaraya Award, awarded to the best paper written by overseas authors or covering an overseas project, was awarded to Wang (2018).

Abstract

The municipal solid waste (MSW) generation in Hong Kong (HK) is increasing at a rapid pace, resulting in health and environmental issues for the public. Compared with Singapore and Shanghai, HK has a higher MSW generation rate due to less effective measures and government policies. To forecast the MSW generation and recycling in HK, system dynamics modelling was conducted using Vensim 6.0, based on the data collected from semi-structured interviews and official reports in the Environmental Protection Department of HK, the National Environmental Agency Singapore and Shanghai Environmental Protection Agency that regularly provide statistics on waste outputs. The simulation results show that shortly the MSW in HK will increase based on the current growth rates, and along with that, recycling will also increase. The recycling rates will offset that of the MSW generation due to the closure of landfills, and MSW will be effectively recycled due to more advanced disposal techniques. The strategies developed by the HK government will be able to manage the MSW disposal, but the city will experience more severe MSW conditions in the future as its landfills are expected to close earlier than planned. Recommendations for HK to deal with MSW generation were derived from the experiences in Singapore and Shanghai.

James Hill Prize

The James Hill Prize, the paper rated best by the Editorial Panel, was awarded to Parkin *et al.* (2018).

Abstract

The Venturer project is trialling an autonomous vehicle (AV) in the context of use on urban roads. This paper summarises a literature review undertaken to assist in developing a research agenda for the trialling. The first contribution of the paper is a framework of four use scenarios for AVs as follows: (1) fully segregated AV network, (2) motorway or expressway network, (3) typical urban network, (4) shared space. The paper then focuses on a review of the social interactions in the street environment and discusses issues concerning human behaviour in relation to autonomy.



Miriam Ricci and John Parkin, winner of the James Hill Prize, with ICE president, Andrew Wyllie

The second contribution of the paper is a set of research questions for AV trialling in relation to other road users, including, pedestrians and cyclists, which have emerged from the literature review.

REFERENCES

- Parkin J, Clark B, Clayton W, Ricci M and Parkhurst G (2018) Autonomous vehicle interactions in the urban street environment: a research agenda. *Proceedings of the Institution of Civil Engineers – Municipal Engineer* **171(1)**: 15–25, <https://doi.org/10.1680/jmuen.16.00062>.
- Wang C (2018) System dynamics simulation on municipal solid waste in Hong Kong. *Proceedings of the Institution of Civil Engineers – Municipal Engineer* **171(4)**: 185–195, <https://doi.org/10.1680/jmuen.16.00044>.