

## Award-winning paper in 2015

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 7 October 2016, ICE president John Armit্ত presented an award to the following paper published in *Municipal Engineer* in 2015. The editorial panel nominated their best papers and an awards committee chaired by Nigel Wright allocated the awards.

### James Hill Prize

The James Hill Prize, presented for the best paper on a municipal engineering subject, was awarded to Fujiyama *et al.* (2015).

### Abstract

Horizontal and vertical gaps between the train and the platform are a major safety concern for railway passengers, especially for disabled passengers. London Underground is implementing a programme to install platform humps to remove vertical differences between the train and the platform. In order to properly design platform humps, this study empirically investigated the effects of the design factors of the ramps, namely the slope and cross-fall gradients, on disabled passengers. The investigation consisted of two experiments: one where 20 participants were asked to walk on simulated slopes, and the other where 25 participants were asked to board or alight from the simulated train from or onto the slopes. The slope gradients tested were 3.0% (1:33), 5.2% (1:19) and 6.9% (1:14) with the cross-fall gradients 1.5% (1:67), 2.0% (1:50) and 2.5% (1:40). The results showed that the slope gradient does not largely affect the participants' performance of longitudinal walking on the slopes or their subjective safety evaluation, but would cause additional difficulty for them to board/alight from the train from/onto the slope. This suggests that train doors should not stop next to the ramp. There was little evidence concerning the effects of the cross-fall gradient. The results provide useful information for designing platform humps.



James Hill Prize winners Craig Childs, Derrick Boampong and Taku Fujiyama with ICE president John Armit্ত.

### REFERENCE

Fujiyama T, Childs C, Boampong D and Tyler N (2015) Investigating ramp gradients for humps on railway platforms. *Proceedings of the Institution of Civil Engineers – Municipal Engineer* **168**(2): 150–160, <http://dx.doi.org/10.1680/jmuen.2015.168.2.150>.