

# Editorial

**Jin-ho Chung** PhD

Research Associate, Transport Studies Unit (TSU), School of Geography and the Environment (SoGE), University of Oxford



Over the last couple of decades, climate change has significantly contributed to shaping urban planning and governance as witnessed in various sectors such as transport, public health and housing. By 2050, nearly 70% of the world's population will be urban, and cities in the developing countries are already facing various challenges caused by uneven urbanisation and deep-rooted social inequalities. Moreover, last year densely populated urban areas were hit harder than sparsely populated rural areas by negative social and economic impacts of the Covid-19 pandemic. It is increasingly recognised that how cities respond to the challenges of urban communities is fundamental to the fight against climate change, and there are various opportunities for *Municipal Engineer* to address. Ambitious research and policy actions at various levels are required to meet the targets set out in the 26th UN Climate Change Conference (COP26).

The papers in this issue highlight critical urban governance topics such as the spatial and temporal features of bus bunching to promote sustainable urban public transport (Tsoi & Loo, 2022), the zoning applications to automated land subdivision practice for an integrated urban land planning (Koc *et al.*, 2022), the soil contamination information analysis on urban brownfield sites for efficient local government data management practice (Hellawell & Hughes, 2022), the public value capture analysis of urban renewal project sites to achieve the sustainable housing demand/supply management (Tarakci & Turk, 2022), and the practical usage of road-engineering standards in practice (Parker & Fraser, 2022). Addressing these research topics and exploring solutions to local issues aim to meet the policy direction of the global challenges as we strive to achieve progress.

Urban complexity and the production of policy-relevant scientific knowledge often require interdisciplinary approaches, encompassing both social and natural science and employing both quantitative and qualitative methodologies. *Municipal Engineer* has a particular interest in interdisciplinary

approaches, and the papers in this issue engaged with various methods such as artificial intelligence (AI) applied image classification and visualization techniques, scenario building and interviews, parcelling operations with edge and area values, and data and information quality analysis. Interdisciplinary approaches create wider and meaningful impact to local governments through the demonstration of effective knowledge production pathways to facilitate application of science into policy.

Future issues on the themes of 'Climate change and urban municipal engineering' and 'Sustainable transport' are planned. Those who are interested in exploring these topics should contact the Journal Editor Rebecca Rivers at [rebecca.rivers@icepublishing.com](mailto:rebecca.rivers@icepublishing.com) whilst keeping an eye out for a call for papers in 2022. *Municipal Engineer* publishes its most recent articles Ahead of Print on its Virtual Library homepage and relevant papers can be identified through a basic ICE Virtual Library search.

## REFERENCES

- Hellawell EE and Hughes SJ (2020) The potential use of local government planning data for soil contamination analyses. *Proceedings of the Institution of Civil Engineers – Municipal Engineer* **175(1)**: 29–41, <https://doi.org/10.1680/jmuen.20.00011>.
- Koc I, Cay T and Babaoglu I (2020) Different Approaches to Automated Land Subdivision using Binary Search Algorithm in Zoning Applications. *Proceedings of the Institution of Civil Engineers – Municipal Engineer* **175(1)**: 16–28, <https://doi.org/10.1680/jmuen.18.00066>.
- Parker P and Fraser A (2019) Discussion: Expected behaviour and actual behaviour – is there a difference? *Proceedings of the Institution of Civil Engineers – Municipal Engineer* **175(1)**: 57–58, <https://doi.org/10.1680/jmuen.19.00031>.
- Tarakci S and Turk SS (2021) Public value capture capacity in the urban renewal project process: Fikirtepe case. *Proceedings of the Institution of Civil Engineers – Municipal Engineer* **175(1)**: 42–56, <https://doi.org/10.1680/jmuen.20.00033>.
- Tsoi KH and Loo BPY (2021) Bus bunching from a stop-based perspective: Insights from visual analytics. *Proceedings of the Institution of Civil Engineers – Municipal Engineer* **175(1)**: 2–15, <https://doi.org/10.1680/jmuen.21.00026>.