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Editorial

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Editorial

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Greetings to all our readers. A year ago, I co-authored the editorial when the Covid-19 pandemic was keeping us all on tenterhooks. Hopefully the worst is over, vaccination has picked up pace and businesses are opening to new opportunities whilst realigning their strategies and innovating quite rapidly. As always *Construction Materials* seeks to publish original research and practice papers of the highest quality on procurement, specification, application, development, performance and evaluation of materials used in construction and civil engineering. The journal is as relevant as ever, is at the forefront of dissemination of cutting-edge knowledge and is committed to publishing excellent articles.

This October 2021 issue of *Construction Materials* consists of four papers relating to pavements from authors based in India, Iraq and the UK. The opening paper, by Choudhary *et al.* (2021), explores the use of dimension limestone dust collected from Kota in Rajasthan, India as a filler in asphalt concrete. This work was designed to find a way to reuse the waste sludge deposits which otherwise would dry and become airborne, creating respiratory health issues for people in the vicinity. After an extensive investigation including a long-term ageing study, the limestone dust is indeed viable as a mineral filler in asphalt concrete.

The next paper, by Razouki and Kuttah (2021), explores the behaviour of fine-grained gypsum-rich soil under triaxial tests to study the extent of soaking on the bearing capacity for design of foundations and pavement. This work is driven by the premise that gypsiferous soils can behave differently from soils devoid of soluble salts. Interesting observations have been listed following the standard American Association of State Highway and Transportation Officers (Aashto) compaction test. The effect of needle-like gypsum crystals has necessitated the use of membranes stronger than normal to prevent rupture.

Roads connect places and allow people to move between them with ease for purposes including work and business



Figure 1. Beawar–Pali–Pindwara road, Rajasthan, India (courtesy: Larsen & Toubro)

(Figure 1). A well-connected road network is essential for a powerful economy, and if constructed well can provide all-weather uninterrupted connectivity avoiding expensive repair work. Hence, ensuring quality of construction becomes even more important; Xu *et al.* (2021a, 2021b) have made a thorough review of the indirect density tests, making the case for test precision, by limiting the variation of core densities to $\pm 5\%$ for quality assurance (Xu *et al.*, 2021b). Though the trials were conducted in the UK, the findings could be useful in other locations as well. The importance of pre-calibrating the nuclear density gauges using magnesium or aluminium blocks is nicely articulated using core density values. For field personnel, the limitation of current equipment in meeting quality assurance requirements should be a useful takeaway.

I hope you enjoy reading this issue. Please feel free to discuss the papers and send in your contributions to journals@ice.org.uk. Stay safe and healthy.

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