Special Issue

Advanced Pavement Materials in Road Construction

Message from the Guest Editors

Nowadays, different types of recycled materials are being used to design more sustainable asphalt mixtures, such as steel slags, reclaimed asphalt pavement (RAP), construction and demolition waste, waste glass, tire rubber and polymers. Researchers are also concerned with using life cycle analysis (LCA) to analyze the sustainable impact of different types of technologies and (recycled) materials over their lifetimes. The numerical modeling of materials and pavement structures is of paramount importance as it enables accurate prediction of performance and helps to optimize the design to enhance durability and cost-effectiveness. Regarding friction, studies of pavement roughness and friction measurements are essential for improving road safety. Nano/microparticles have been applied to road pavements in order to improve their mechanical properties or develop a new functionality (functionalization process). Perpetual pavements have significant importance as they are designed to provide extended service life with minimal maintenance, resulting in long-term cost savings and generating sustainable infrastructure solutions.

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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