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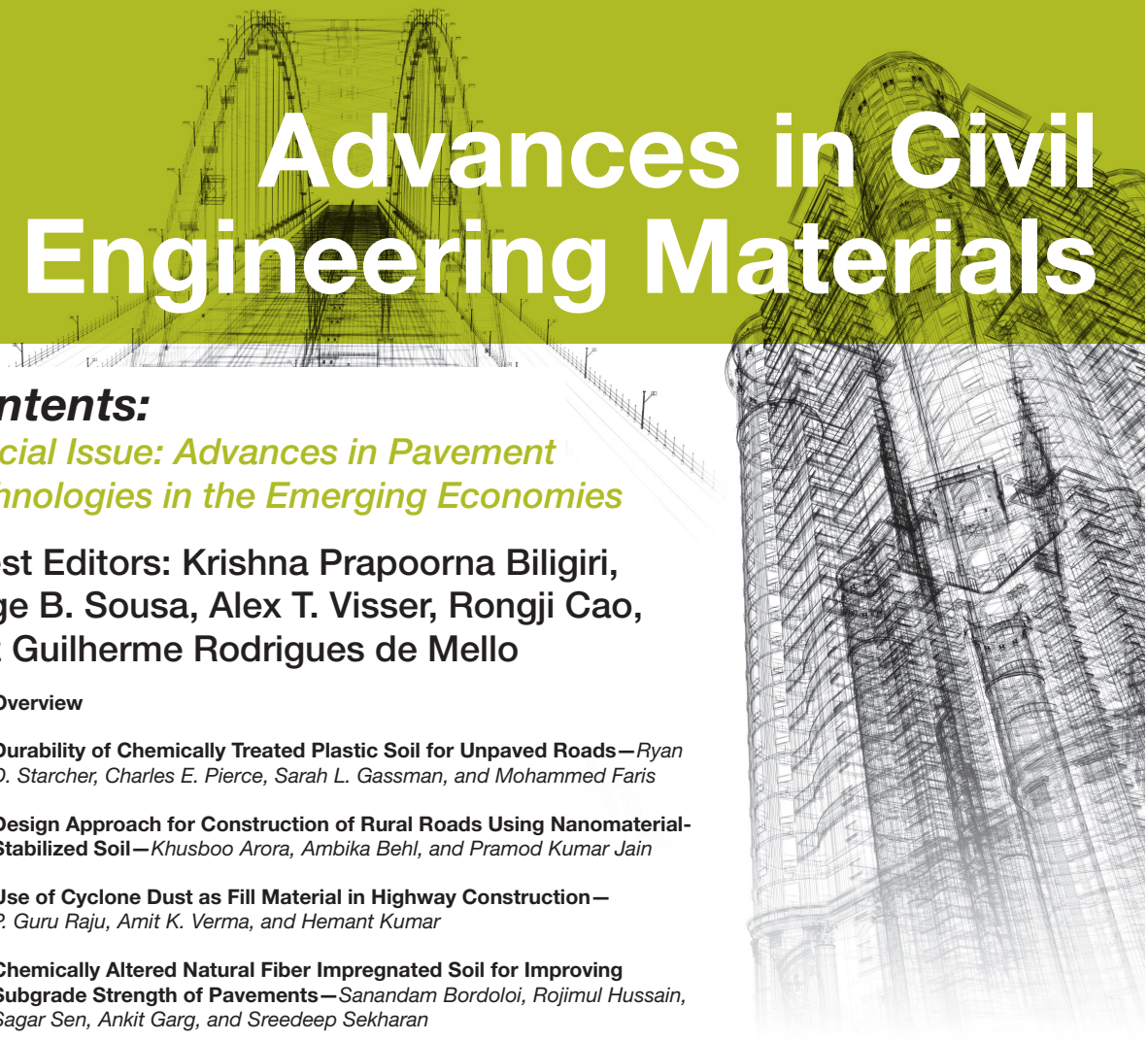

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Special Issue: Advances in Pavement Technologies in the Emerging Economies

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Contributions are peer reviewed prior to publication.

Purpose and Scope

The journal publishes high-quality, original papers on topics relating to the properties and performance of civil engineering materials. These are materials such as concrete, asphalt, steel, polymers and polymeric composites, and wood for use in civil and environmental engineering applications, such as pavements, bridges, buildings (including nonstructural elements such as insulation, and roofing), and environmental systems (including water treatment). The journal core topics are characterization, physical properties, constructability, and durability of these materials. Characterization may include chemical composition, nanostructure, and microstructure. Physical properties include strength, stiffness, and fracture behavior. Constructability includes such topics as construction methods, quality control and quality assurance, life cycle analysis, and sustainability. Durability may be determined using either field performance or accelerated laboratory testing. Papers relating to sustainability of engineering materials or to the impact of materials on sustainability of engineering structures are especially encouraged.

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Overview

Special Issue on Advances in Pavement Technologies in the Emerging Economies

In the last two decades, the technological knowhow pertaining to pavement science and engineering has not only grown enormously in the developed world, but also has provided avenues for the emerging world to transfer the technology in an effort for researchers and practitioners to keep abreast of the current state of the art. Furthermore, it has become imminent for technologists in many regions to globalize themselves, chiefly to share and learn from one another, either at the design stage or implementation phase. The key element of operational juncture is calibration of the established parameters to suit prevalent regional conditions. Thus, one of the major accomplishments of this special issue was to collate technical articles and case studies related to the various advances that have taken place in pavement technologies in the emerging economies.

It was heartening to receive an overwhelming one-hundred-plus abstracts from various regions of the world that culminated with the acceptance of twenty-one papers for publication in the special issue. The issue of final accepted papers encompasses a wide range of topics, including new materials for use in pavement foundations, special materials to enhance certain key characteristics, advances in test techniques for pavement materials characterization, novel materials and designs for low-medium volume road applications, advanced constitutive modeling techniques to achieve mechanistic designs of pavement systems, and development of pavement asset management tools. It is noteworthy that the special issue presents technical articles and case studies, which have utilized the recently developed state-of-the-art technology vetted by the pavement community in many international forums and societies, including ASTM International.

We would be remiss if we did not mention the unflinching efforts put forth by reviewers who scrutinized every minute detail of the various articles received. The untiring energies of the authors are worth mentioning, as we believe their contribution in the process has paved the way for a successful special issue. We hope this special issue will open doors for collaboration across continents in the areas of pavement material science and engineering. In addition, I trust that many new technologies covered in this issue would get due recognition to be considered as future ASTM International standard test protocols/methodologies.

In conclusions, we would like to thank Dr. Leslie J. Struble, who encouraged us to commence the issue, which was later fully supported by Dr. W. Jason Weiss throughout the process. It is important to mention the advice offered by Dr. M. R. Mitchell (Editor-in-Chief, ASTM *Journal of Testing and Evaluation*) who recommended us to collaborate with ASTM *Advances in Civil Engineering Materials*, as he thought our proposition well-suited the emerging journal. Last but not least, special thanks to Alyssa Conaway for her indefatigable patience and hard work through the last several months that has shaped up into a fantastic special issue.

Krishna Prapoorna Biligiri
Guest Editor

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