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Special Issue on
Rubberized-Asphalt-Rubber: A Waste-to-Wealth Strategy for Pavement Circularity

Globally, rubberized asphalt (RA) / asphalt-rubber (AR) pavement systems have been very successful in paving applications owing to their manifold benefits. The prosperity of the novel material mixtures has been chiefly attributed to the presence of a recycled yet resilient additive in the mixture matrix: *rubber*. Several laboratory and field trials have presented exemplary behavioral characteristics of rubberized pavement systems. Beyond trials and field test sections, there is more than sixty years of experience of these actual novel pavement systems on major roadways in several countries. One of the major contentions for this positive trait of rubberized paving material is its nature to adapt to the manufacturing and blending process during the creation of a pavement system. This special issue aims to publish very high-quality research articles and case studies that focus on understanding the nature and behavior of rubberized-asphalt and/or asphalt-rubber materials extensively used in pavement applications. This collection of papers is of special prominence for transportation engineers, roadway designers and practitioners, highway contractors, pavement technologists, fundamental researchers, material scientists, forensic experts, doctoral and postgraduate students, rubber-polymer chemists, several stakeholders, and many others. The aim is to provide excellent opportunities to embrace the different aspects of RA and AR technology with an emphasis on conservation of resources and recyclability of a variety of rubber materials, thus promoting environmental stewardship, consequential of supporting circular economy and waste-to-wealth concepts leading to low-impact development.

Potential topics include, but are not limited to:

- *Energy savings and CO_2 savings that society derives when AR or RA mixtures are used in pavement strategies.*
- *Case studies on demonstration projects using rubberized or asphalt rubber mixes.*
- *Preservation and maintenance strategies using AR and RA mixtures with emphasis on lifecycle assessment*
- *New innovative methods of utilizing with RA and AR mixtures leading to understanding of lifecycle cost analysis from a holistic perspective*
- *Environmental implications and material flow analysis of RA and AR*

Note that this special issue is based on the top selected papers from the RAR2025 conference (https://rar2025.net). However, all papers submitted via the hybrid RCR or open-access RCR Advances journal will go through the standard procedure, i.e., all papers will be screened and will be rejected without review, if not meeting the journal standards.

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