Circular Principles and Industry 4.0 Technologies for Supply Chain Management in Covid-19 Era

The COVID-19 crisis is an unpredicted event which has revealed the fragility of globalized, complex and interconnected supply chains. As a result, these disruptions cause simultaneous disturbances, creating shortage of raw materials, production stops, lead-time and demand fluctuations. In this context, circular economy (CE) practices and Industry 4.0 (I4.0) technologies have been recognized as major components for helping companies to become more successful, resilient, and sustainable.

This special session aims to explore how supply chain actors can adopt circular principles and digital technologies to build resilience, viability and sustainability. We primarily seek research studies that demonstrate how to overcome the present challenges and barriers, outline how the CE and I4.0 technologies should be integrated to improve supply chain performance in the Covid 19 era.

Track Topics:

Submitted manuscripts and studies may include both theoretical and methodological studies. Analytical methods including multi-criteria decision-making models, knowledge engineering, simulations, network design and optimization models, case studies, and empirical statistical analyses are all welcome. Potential Topics include, but are not limited to the following:

- Impact of circular strategies and industry 4.0 technologies on supply chain performance;
- Antecedents / drivers / barriers / challenges / critical success factors for smart circular economy for achieving sustainability and resilience in the supply chains;
- CE practices and smart technologies that may address resilience of the supply chains;
- Theories or models for connecting the circular economy and industry 4.0 in supply chains to improve sustainability and resilience.