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Smart and Sustainable Manufacturing Systems (SSMS) is published online by ASTM International, a nonprofit technical organization that develops and publishes voluntary consensus standards and related information for materials, products, systems, and services.

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PURPOSE AND SCOPE

This journal fosters transdisciplinary research that crosses the boundaries of information science, systems engineering and engineering design, manufacturing, and product life cycle with a focus on how to make manufacturing systems smarter and sustainable.

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IN APPRECIATION OF THE REVIEWERS

The high quality of the papers that appear in this publication is a tribute not only to the obvious efforts of the authors represented but to the unheralded, though essential, efforts of their reviewers. It is to the reviewers' dedication to upholding the high standards of their profession that this note pays tribute. On behalf of ASTM International and the authors as well, we acknowledge with appreciation their important contribution to the success of this journal.

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Overview

When we started on the idea of this special issue, we were hoping that when it was published the world would be better and it would be looking at recovery from COVID-19. Unfortunately, the pandemic is far from over, and globally the crisis has not subsided. COVID-19 has wrecked the global economy, causing global disruption and leading to a downturn in productivity.

This has especially affected the manufacturing sector significantly, making it difficult to keep the production going and protect the supply chain. This has impacted overall productivity and employment, which has national security implications. We need to have a multipronged approach in addition to market dynamics to address these and find cost-effective, long-term solutions. From the above context, how can manufacturing be revitalized locally and globally? What strategies must manufacturing organizations, governments, and educational institutions follow to rebuild economies, re-skill the workforce, and stop the spiraling downfall leading to global economic collapse? How to build resilient supply chains?

These questions prompted us to request technical notes from authors. Our call got an excellent response and we had technical notes submitted from different parts of the world. These technical notes were rigorously peer reviewed, and finally we selected the 21 papers which you can read in this special issue. We want to thank all the authors who felt the need to address this important topic and share their thoughts.

This pandemic created a totally uncharted territory, and nobody knows the path forward. Through this special issue, we want to give the world thought leadership for post–COVID-19 manufacturing. Though some of the use cases are from the USA, we feel that we have given the world a compendium of possible actions from practical and policy perspectives.

The papers in this issue address various facets: From how to standardize biotechnology platforms for vaccine production to pandemic proofing our factories to how artificial intelligence can help our manufacturing. Papers cover various aspects of manufacturing, including resilient supply chains and discovering supply chains. Authors dealt with the intricate details of manufacturing to the philosophical aspects of economy. We have a diverse set of authors, including a physician sharing his thoughts on making masks.

We feel that we have succeeded in our mission, and we are able to answer many of the questions we raised in the call for papers.

We urge all the authors to let the world see their papers and the collective wisdom of so many experts from all over the world, moving us in the right direction for post–COVID-19 manufacturing. We would like scientists, practitioners, and policy makers all over the world to have the benefit of our collective wisdom—we encourage you to send this issue to your friends, colleagues, and policy makers. Please use social media to let the world see what we are offering for the recovery from the COVID-19 devastation.

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Looking back five years from now, we can feel that we have done something meaningful through our collective wisdom to get through these difficult times and take the world to normalcy.

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