Guest Editorial Preface

Special Issue on Multicriterion Decision Making on Safety and Sustainability Issues in Industry or Different Sectors

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Sustainability and Safety are two significant issues with Industries and arising areas. To look after sustainability, each industry needs to deal with its waste administration part appropriately. Without well-being concerns, any profoundly gainful industry or the area will be a whole disappointment. Word-related well-being security is regularly dealt with by outlining and following strategies and looking after protection, motivators, and so on with the utilization of profoundly delicate Internet of Thing based gadgets and the help of Artificial Intelligence (AI) strategies noteworthy changes are frequently conveyed to inquiries of security of an Industry. Multi-criterion dynamic (MCDM) thinks about organizing and tackling choice and arranging issues including various models. The point is to help leaders confronting such issues. Normally, there does not exist a particular ideal answer for such issues. Along these lines, with the assistance of MCDM, an obviously better arrangement is regularly found and recommended to Sustainability and inquiries of security of different enterprises.

This special issue of the International Journal of System Dynamics Applications (IJSDA) contains five revised paper that deals with the articles related to disaster, current and advanced technology.

The first article explained how. Humans is a fighter of natural calamities and disasters like earthquakes, Floods, Droughts, cyclones, Pandemics, and Blizzards. After the disaster, Still, they try to establish everything buildings, establishment, infrastructure, the life of humans, etc. like old or better. In this paper, an effort is taken to find SCM barriers (supply chain management during a disaster) and prioritize them by multi-criterion decision making Electre method. In the 2nd article of this special issue Agricultural supply chain (ASC) and the role of sustainability in the food supply is explained. ASC encounters more risk sources due to seasonality, perish-ability, and weather conditions make the global food security system complex. This paper develops an optimization model for a perishable product supply chain to decide the optimal risk management strategy that maximizes the decision maker's expected profit under demand and price uncertainty. A base-case scenario is considered to show the impact of the risk management strategy on performance improvement.

The effect of preventive maintenance on the reliabilities of devices in a bottling plant is studied and analyzed in the 3rd paper by considering six months of real-time maintenance data. Based on the breakdown events obtained for each machine, mean time between failure (MTBF), mean time to repair (MTTR), and failure rate (λ) values for individual equipment calculated. The bottle packer, empty bottle inspector (EBI), and palletizer identified as the plant's critical machines.

The 4th article of this special issue is focused on the relationship between Supply Chain Management Practices and Production Performance in Indian Hand-loom Industry. Data is collected from the Master weavers of Undivided State of Andhra Pradesh and analyzed using Structural Equation Modeling. The study found that there is a relationship between Supply Chain Management Practices and Production Performance.

The last article explained about automated manufacturing system. Technological significance can be automated to improve the productions of the industry. The objective of this paper is to explore the concept of automation and presents brief taxonomies across multiple scientific and industrial automation systems. This article too describes the effect of automation on the society and environment.

As the official journal of the International Journal of System Dynamics Applications (IJSDA) is proud to bring you this special issue. We hope that reading these top-quality papers will inspire you to send your own submissions to future issues.

May these contributions be helpful to all or any for research and academic growth.

In the End, we would really like to greatly appreciate the reviewers who have dedicated their considerable time and expertise to review papers. The suggestion and comments help to enhance the content, which will motivate readers of this special issue. We would wish to thank the Associate Editors of the special issue of IJSDA, without them the timely review and completion are impossible, we are very glad and fortunate that our Special issue is accepted in IJSDA, IGI Global. We would wish to thank our Editor in Chief Prof. Ahmad Taher Azar for giving us the chance to Edit the Special Issue in IJSDA. We got all guidance and help when we needed it during our Special issue editing process. Thanks to Alexis Miller and Dr. Nashwa Ahmad Kamal for helping us. My friend Arturo Realyvásquez-Vargas helped me a lot with this special issue, it is a very smooth and delighting experience to edit the special Issue of the IJSDA journal.

Thanks to all for your help and guidance. In the future, it'll add value to my editorial experience.

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