



The 50th International Conference on Computers and Industrial Engineering

CIE50 | October 30–November 2, 2023

Special Session on Maintenance Digital Transformation: Opportunities, Challenges and Future Directions

Organizers

	Name	Affiliation	Email
1	Prof. Mohamed Ben-Daya	Industrial Engineering Department American University of Sharjah, UAE	mbendaya@aus.edu
2	Dr. Rami As'ad	Industrial Engineering Department American University of Sharjah, UAE	rafif@aus.edu
3	Dr. Afef Saihi	Industrial Engineering Department American University of Sharjah, UAE	g00079250@aus.edu

Session Information

The proposed special session aims to offer a comprehensive platform for the exchange of innovative ideas, knowledge, and experiences in the field of maintenance digital transformation. The session's objective is to facilitate constructive discussions on the latest trends, challenges, and future directions of this critical field. The special session will be an integral part of the CIE 50 conference, which focuses on "Sustainable Digital Transformation," and will explore the intersection between digital transformation and sustainability in the context of maintenance practices.

The scope of this special session will cover a range of topics related to maintenance digital transformation. These topics include, but are not limited to, predictive maintenance, maintenance analytics, integrating AI and robotics into maintenance practices, and the role of digitalization in achieving sustainable maintenance practices. Additionally, the session will address the challenges faced by those implementing digital transformation in maintenance operations, such as data security, workforce readiness, and data quality.


Researchers, practitioners, and experts in the field of maintenance digital transformation are welcome to submit their work for consideration in the special session. The organizers encourage submissions that offer practical examples of successful digitalization of maintenance practices, case studies on the implementation of digital technologies in maintenance operations, and discussions on best practices and solutions for overcoming associated challenges.

In today's rapidly changing technological landscape, maintenance digital transformation has become an increasingly vital topic. The reliance on technology and data-driven decision-making is revolutionizing maintenance practices across various industries. As such, it is a crucial area of exploration in the context of this reputable conference. The proposed special session on "Maintenance Digital Transformation: Opportunities, Challenges and Future Directions" offers a unique opportunity for conference attendees to engage in in-depth discussions on this emerging field. The session provides a focused and dedicated forum for discussing the latest trends and challenges in this area of research.


The special session's emphasis on exploring the role of digital transformation in achieving sustainable maintenance practices makes it even more unique and valuable. By bringing together researchers and experts from various backgrounds, the session aims to stimulate discussions on how digitalization can be leveraged to promote sustainable maintenance practices, while addressing the associated challenges.

Compared to regular conference sessions, this special session provides a more specific and dedicated platform for discussing the latest advancements in maintenance digital transformation. It offers an invaluable opportunity for attendees to learn about the latest developments in this area, exchange ideas and knowledge, and foster collaborations for advancing the field. Moreover, the session's focus on sustainability in maintenance practices further adds to its novelty and relevance.


Organizer 1 – (Prof. Mohamed Ben-Daya)

<p>Mohamed Ben-Daya is an Industrial Engineering Professor at the American University of Sharjah. He received his PhD in Operations Research from Georgia Institute of Technology in 1988. His research interests are in the areas of production planning, maintenance and quality control, and supply chain management. He has published over one hundred papers in refereed journals and conference proceedings. He co-edited several books on maintenance engineering and optimization and co-authored a textbook on maintenance engineering published by Wiley. He is the co-founder and Associate Editor of the Journal of Quality in Maintenance Engineering published by Emerald, and also the Associate Editor of Information Systems and Operational Research Journal.</p>	
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Organizer 2 – (Dr. Rami As'ad)

<p>Rami As'ad received his BSc and MSc in Systems Engineering and Operations research from King Fahd University of Petroleum and Minerals, Saudi Arabia, in 2003 and 2006, respectively. He holds a PhD in Industrial Engineering from Concordia University, Montreal, Canada. He is currently an Associate Professor at the Industrial Engineering Department at the American University of Sharjah. His primary research interests are supply chain management and mathematical modeling, where he has published several papers in a wide spectrum of journals including International Journal of Production Economics, International Journal of Production Research, Journal of Cleaner Production, Computers and Industrial Engineering, Applied Mathematical Modelling, among many others.</p>	
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Organizer 3 – (Dr. Afef Saihi)

<p>Afef Saihi received her Ph.D. degree in Engineering Systems Management from the American University of Sharjah where she is currently a Postdoctoral Researcher, in 2023. She holds Engineering degree in Telecommunications from the Higher School of Communication of Tunisia (SUP'COM), and Master in Business Administration from the Canadian University of Dubai. Her research interests include digital transformation, maintenance management, sustainable performance evaluation, and innovation management. She published articles in reputable international journals such as International Journal of Production Economics, IEEE Access and International Journal of Quality & Reliability Management, and presented her research works in prestigious international conferences.</p>	
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