

Foreword to the 10th International Through-life Engineering Services Conferences (TESConf2021):

The need for sustainable Through-life Engineering Services in the era of Industry 4.0 and beyond

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Keywords: Through-life Engineering Services (TES); Industry 4.0; Industry 5.0; Sustainability; Digitalisation.

Dear Colleagues from academia and industry,

As you probably know, Through-life Engineering Services (TES) Conference series is a well-established academic forum that brings together academia and industry to develop and deliver engineering solutions for the life of complex and long-life assets. This blends research and industrial solutions related to processes and methods that can optimise the value and cost-in-use.

The TESConf2021 is hosted by the University of Twente, in the Netherlands for its 10th Anniversary. We decided to set the focus of the Conference on two main topics that are highly affecting the industrial world and, consequently, society: Sustainability and Digitalization.

Sustainability and Digitalization are playing a major role over the whole life cycle of an asset (Fig.1), from design to phase-out. Digitalization is one of the key drivers of Industry 4.0 with all its facets; Sustainability is the centre of gravity of Industry 5.0, as recently defined by European Union, together with human-centricity and resilience.

This edition of the conference includes nine academic sessions, which cover the latest advances in TES using Sustainability and Digitalisation as foundation. The sessions have been designed to enhance understanding of how to connect different phases of the asset life cycle.

The Conference will cover challenges, such as design for service, evaluating the impact of degradation, and understanding the sustainability implications of TES. Additionally, attendees will enjoy three keynotes from academia and industry representing different sectors. We are also planning several industrial workshops that offer interactive sessions on topics ranging from system integration to sustainability and digitalization.

As Conference Organisers, we hope the papers and the research results presented at the TESConf2021 will be valuable to you.

Enschede, 16th November 2021

Leo van Dongen

Alberto Martinetti

Marleen Kuipers

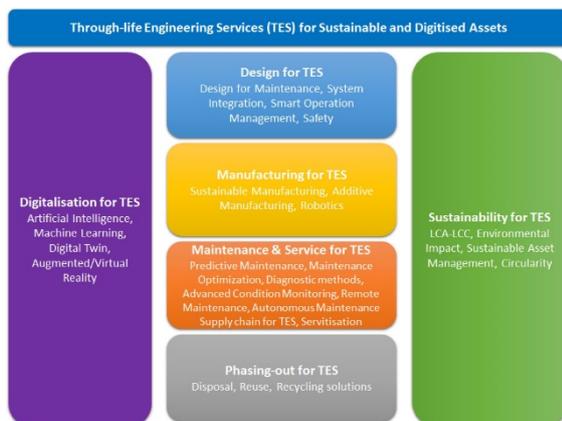


Fig. 1. TESConf2021 main topics

Acknowledgments

The conference organizers want to thank the International and Scientific Committee for the given help in reviewing the academic papers published at the TESConf 2021 and in leading the industrial workshops. A special sign of gratitude goes to the prof.dr. John Erkouyunku, Dr. Gustavo Castelluccio and Dr. Pavan Addepallu of Cranfield University, UK, for trusting us in hosting the TESConf series at the University of Twente. Finally, a special thank goes to the authors of the academic papers of TESConf2021 for sharing their interesting research.

Conference Chairs



Prof. Dr. Ir. Leo van Dongen

General Chair

Leo van Dongen is a professor in Maintenance Engineering and Head of the Design, Production and Management Department at the University of Twente. Leo (1954) has worked for the Netherlands Railways (NS, 100% state-owned) for 35 years. He retired as Chief Technology Officer (CTO), responsible for the asset management of the rolling stock fleet, workshops, and maintenance equipment in August 2019.



Dr. Alberto Martinetti

Programme Chair

Alberto Martinetti is an assistant professor in Maintenance Engineering at the University of Twente. His research line focuses on the application of new technology to Maintenance Operations. Alberto (1985) is the founder and president of the NGO EDUbox that provides self-contained, off-grid and modular learning environments for underserved communities.



Ir. Marleen Kuipers, MBA

Local Chair

Marleen Kuipers is an Impact Developer in the Strategic Business Development Department at the University of Twente. Before joining the University of Twente in 2020, Marleen worked for 20+ years in industry in various leadership roles in strategy, marketing and sales, mainly in the field of process automation.