
Editorial

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Biographical notes: Magnus Holm is a Assistant Professor at the Division of Intelligent Production Systems at the University of Skövde. He is a coordinator at the ASSAR Industrial Innovation Arena, enhancing innovation based on industrial collaboration and dissemination of research to industry. He received his PhD in Manufacturing Engineering from the Loughborough University, England in 2017. His research focuses on shop-floor operator support and digital transformation processes in industry.

Amos H.C. Ng is a Professor of Automation Engineering at the University of Skövde, Sweden. He is also a Visiting Professor in the Division of Industrial Engineering and Management at Uppsala University, Sweden, and the CEO of Evoma AB. He holds a PhD in Computing Sciences and Engineering and a chartered engineer and member of IET in the UK. His current research interest lies in combining multi-disciplinary simulations and AI-based prescriptive analytics for supporting decision making in manufacturing/supply-chain/healthcare domains. In conjunction with this is his principal investigator role in the profile project of the University of Skövde, called Virtual Factories and Knowledge-Driven Optimization, which started in 2018 and will last till 2026, collaborated with many major manufacturing firms in Sweden. He is currently the Chairman of the Swedish Production Academy.

Dan Högberg is a Professor at the Division of Product Development and Design at the University of Skövde. He is a member of the Swedish Production Academy, Product Development Academy in Sweden and the International Ergonomics Association (IEA) Technical Committee on Human Simulation and Virtual Environments. He leads the User Centred Product Design (UCPD) Research Group within the Research Environment Virtual Engineering. He received his PhD in Engineering Design from the Loughborough University, England in 2005. His research focuses on making user-centred information, e.g., ergonomics knowledge, relevant and easily available to product designers and engineers. His central research is digital human modelling (DHM) and how such technology can contribute to supporting designers and engineers to consider ergonomics/human factors proactively at virtual stages of the design process.

Anna Syberfeldt is a Professor at the School of Engineering Science at the University of Skövde. She leads the Research Group of Production and Automation Engineering at the University of Skövde, which consists of approximately 25 researchers working within the area of virtual engineering. The group's research is to a large extent applied and carried out in close cooperation with industrial partners, mainly within the manufacturing industry but also with partners found in the public sector. Her research interests include production system development, artificial intelligence, advanced optimisation, and decision support systems.

The realisation of a successful product requires collaboration between developers and producers, taking account of stakeholder value, reinforcing the contribution of industry to society and enhancing the wellbeing of workers while respecting planetary boundaries. Founded in 2006, the Swedish Production Academy (SPA) aims to drive and develop production research and education and to increase cooperation within the production area. SPA initiated and hosts the conference Swedish Production Symposium. This special issue is based on invited papers from the 10th Swedish Production Symposium (SPS2022), held in Skövde, Sweden, from 26–29 April 2022. The overall theme for SPS2022 was 'Industry 5.0 transformation – towards a sustainable, human-centric, and resilient production'.

As stated by the European Commission the vision of Industry 5.0 recognises societal goals. It goes beyond a techno-economic vision, industrial value chains and growth aiming for the industry to become a resilient provider of prosperity, respecting our planets boundaries, and placing the industrial worker, her well-being, at the centre of the production process.

In this special issue, we set out to explore the transition to a resilient, sustainable and human centric industry. The first paper explores the need for a joint strategic vision that include technology (selection, development, and implementation), organisation (structure, agility, management, stakeholder collaborations, work environment) and people (skills and competences, participation, innovation and creative collaborative culture, and change readiness), to achieve a resilient and sustainable production system effectively and efficiently. The second paper discusses how reconfigurable manufacturing systems can enable sustainable manufacturing and circularity, achieving high responsiveness and cost efficiency. The third paper, a synthesis of universal workplace design in assembly, explores how human assembly workplaces can be designed in a better way in regard to inclusion of diverse worker populations. The fourth paper discusses different meanings of digital transformation in manufacturing industry from both a theoretical and industrial perspective. The fifth paper explores challenges to design a product service system at an SME as an approach to support transition to Industry 5.0. The concluding paper in this special issue discusses a knowledge extraction platform for reproducible decision support based on data from multi-objective experiments.

The organiser of SPS2022 has found these six outstanding papers to perfectly align with the theme 'Industry 5.0 transformation' and express their gratitude to the Editor-in-Chief of *IJMR* for accepting them for publication in this special issue.