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Special Session: Resilient Workforce, Successful Transformation: Human Factors in the Digital Shift

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Aligned with our EU Horizon project "Excellence in Human-Centered Logistics 4.0 – X-HuLog4.0" and MIM2025's motto, "Be the impact! Make a better world," we invite contributions to our special session focused on the human influence on evolving production and logistics systems for a better future. While digital transformation is often seen as a purely technological endeavor, we aim to highlight the critical role that management and worker support play in the success or failure of transformational changes in sociotechnical systems. Digital transformation has become integral to organizations, driven by the adoption of innovative technologies such as generative AI, automation, and data analytics across entire organizational structures. These technologies are essential for advancing Industry 5.0's goals of creating a better world through greener, more sustainable, resilient, and human-centered production systems. However, the success of digital transformation projects heavily depends on psychosocial factors, employees' motivation, willingness, and attitude to embrace and support change throughout the project lifecycle. Challenges such as uncertainties related to changing roles and responsibilities, increased workloads combined with decreased control via technological monitoring, psychosocial strain, evolving job descriptions, fears of technological unemployment, skill loss, and biases and retention toward emerging technologies occur in practice and need to be integrated into new research models and frameworks. Employee support is pivotal in navigating these uncertainties and challenges—whether adapting to new roles, managing evolving responsibilities, overcoming fears of technological unemployment, or addressing concerns about skill obsolescence. Research has shown that these human factors can be decisive in determining whether a project thrives or falters. Despite this, the human side of digital transformation often receives insufficient attention in mainstream discussions, particularly concerning motivation, psychological well-being, and organizational culture.

In this **special session**, we welcome submissions of novel solutions, strategies, and insights aimed at positively influencing employee attitudes and motivation, with the goal of achieving favorable outcomes in pilot projects, test setups, and full-scale implementations. Thought-provoking discussion questions include: *"How can we design for good motivation, rapid learning, and sustainable work in Industry 5.0?" "What are the key methods for researchers and managers?" "Which key features of design should we employ?" and "What are the main barriers to successful digital transformation?"* Methods may include a variety of approaches, such as quantitative and qualitative research, literature reviews, meta-analyses, conceptual works, and more. Given the complexity of this topic—especially in terms of measuring the effects of interventions and comparing them to conventional approaches to change management—we particularly encourage contributions grounded in practical examples, with considerations for scalability and repeatability. **As this is a special session, we are extending the scope to include input and perspectives from practitioners, and offer panel discussions, workshops, or roundtables to encourage the exchange of opinions.** Therefore, we also welcome participants from industry and NGOs to join discussions and showcase solutions. We invite interdisciplinary contributions from various fields, including but not limited to management, psychology, ethics, behavioral sciences, and coaching. Submissions are not restricted to projects involving automation control systems; we are interested in all types of transformational endeavors, as these may have implications for workers across all sectors. Accepted papers will be published open access in Elsevier's IFAC-PapersOnLine. Post-conference special issues for extended versions of accepted papers are planned in IFAC and other high-ranked journals.

Topics may include, but are not limited to: *Employee motivation in Industry 5.0; *Worker resilience during disruptions and transformations of digitizing production environments; *Use of coaching in change management; *Effect of human factors (perceptual, cognitive, physical and psychosocial aspects in the workplace) on success of technology adoption in digital transformational projects; *Competency development of workers for enduring change in organizations; *Technology aversion and rejection in Logistics 4.0; *Factors of user acceptance in the introduction of new production technologies; *Ethics in human-centered digital transformation; *Fear, biases and resistance in workers during times of pressure to change.

INVITATION CODE: xxxx

Draft papers reporting original research (limited to 6 pages in IFAC format) and extended abstracts are welcome. When you submit your paper to the IFAC system, you will be required the invitation code xxxx in order to associate your contribution to the special session: https://ifac.papercept.net

Draft papers/ extended abstract submission deadline: 30.11.2024; Conference website: https://conferences.ifac-control.org/mim2025