





### **IEEE Conference on Industrial Cyber-Physical Systems (ICPS)**

**Emden, Germany, 12-15 May 2025** 

https://icps2025.ieee-ies.org

## **Call for Papers - Special Session on**

# Sustainable, Resilient, and Reactive Trans-disciplinary Digital Transformation

#### Organized and co-chaired by:

**Broder Breckling** University of Vechta, Germany

Thomas BrinkhoffJade University of Applied Sciences, GermanyRoland PeschJade University of Applied Sciences, GermanyFrank SchüsslerJade University of Applied Sciences, Germany

**Armando Walter Colombo** University of Applied Sciences Emden/Leer, Germany

#### Technical Outline of the Session and Topics:

Concepts and Applications of Cyber-Physical Systems (CPS) are not strictly limited to Technical and Industrial systems. They normally operate interacting with other kinds of systems that also have to be considered within the scope of CPS. Topics such as resilience and reactive systems from a trans-disciplinary perspective can incredibly complement and enhance the approach of how Industrial Cyber-Physical Systems are developed, implemented, and operated, aiming to obtain a coherent structural and sustainable functional service-oriented infrastructure. The results in the form of value-added services offered by such infrastructure facilitate the realization of new digital businesses providing different benefits, e.g., sustainable and resilient living conditions, to all the involved digitalized and networked organizations.

#### Topics:

- Digital Transformation in the context of structural change in agriculture, biodiversity, and climate change
- Geo-Spatial trans-disciplinary Digital Transformation
- Digital Transformation in demographic areas and associated health changes in rural areas
- Sustainable Digital Transformation and digitalization within constrained scenarios
- Sustainable planning/design of urban-rural spaces and mobility
- Sustainable Digital transformation in the context of education, public health, tourism, and governance
- Digitalization within the context of constrained scenarios for renewable energy production

**Author's schedule:** Same as the ICPS Conference