



Call for Papers

SS11 - New technologies applied to industrial carbon neutrality: factory applications

Organized and Co-Chaired by (sorted by last name)

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❖ **FOCUS.** The manufacturing sector accounts for approximately one-third of global greenhouse gas emissions. Therefore, the green and digital transformation of the industrial sector is essential for the transition to a sustainable energy model, adapting their energy generation infrastructure and their energy demanding systems to the latest trends, and preparing them for their active participation towards the foreseen European energy system. In this regard, this special session is focused on the discussion of emerging technologies, such as artificial intelligence, digital twins, industrial internet of things and cyber-physical systems, among others, applied to industrial carbon neutrality challenges.

❖ TOPICS

This special session will be focusing on (but not limited to) the following topics:

- ❖ Industrial energy hubs
- ❖ Industrial renewable infrastructures
- ❖ Industrial demand response schemes
- ❖ Digital models for the operation of energy systems in industry
- ❖ Advanced control strategies of industrial systems for efficiency increase
- ❖ Novel monitoring solutions for industrial assets performance monitoring

❖ **AIM.** The aim of the Special Session is to bring together researchers and practitioners from the industry and academia and provide them with a platform to report on recent advances and developments in the newly emerging areas of artificial intelligence, digital twins, industrial internet of things and cyber-physical systems, among others, applied to industrial carbon neutrality challenges. Thus, the interests of this session are novel approaches resulting from the application of such new technologies to equipment, machinery and plants towards a sustainable, efficient and intelligent manufacturing sector.

❖ **CONFERENCE FORMAT.** The conference will comprise multi-track sessions for regular papers, to present significant and novel research results with a prospect for a tangible impact on the research area and potential implementations, as well as work-in-progress (WiP) and industry practice sessions.

❖ AUTHOR'S SCHEDULE (2022)

❖ Regular and special sessions papers

Submission deadline April 1
 Acceptance notification May 6
 Deadline for final manuscripts June 17

❖ Work-in-progress/Industry practice papers

Submission deadline May 13
 Acceptance notification June 10
 Deadline for final manuscripts June 17