

ETFA 2022

27th INTERNATIONAL CONFERENCE
ON EMERGING TECHNOLOGIES
AND FACTORY AUTOMATION

STUTTGART, GERMANY
SEPTEMBER 6th-9th 2022

Call for Participants

Date: September 6, 2022

Biointelligent Manufacturing – Looking to biology with engineering eyes

Organized and Co-Chaired by
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❖ **FOCUS.** Biointelligence represents a new perspective for automation technology and creates a fundamentally new space for innovation. While current research in the context of digitalization is concerned with the integration of technical and informational components (CPS, IoT, etc.), we discuss the incorporation of a third (the biological). A system can be described as biointelligent, if it comprises of at least one biological and one technical component, which interact in a way that allows autonomous control and intelligent behavior. In this workshop we will focus on methods, tools and technologies that enable the development, implementation and deployment of biointelligent production systems.

❖ TOPICS

- ❖ Biology-technology-interfaces (BTI)
- ❖ Biosensors, bioactuators, softsensors
- ❖ Automation solutions of bioprocesses
- ❖ Digital twins and complex modeling of bioprocesses
- ❖ Enabling technologies for biointelligent manufacturing
- ❖ Sustainability of biointelligent manufacturing

❖ **AIM.** The aim of the workshop is to bring together researchers and practitioners and provide them with a platform to report on recent advances in the newly emerging area of biointelligent manufacturing. After the talks of three invited speakers, we attempt to define the **basis for a joint perspectives paper in a peer-reviewed journal** in a collaborative workshop..

❖ **WORKSHOP FORMAT.** Workshop based on invited presentations.

Workshop Program

Prof. Thomas Bauernhansl
(Fraunhofer IPA, University of Stuttgart)
'Biointelligence – A new perspective for sustainable production?'

Dr. Holger Eickhoff
(BICO – The bioconvergence company)
'How bioconvergence does change products and processes'

Prof. Thomas Becker
(Technical University of Munich)
'Status, potentials and challenges of soft sensors in bioprocess technology'

Joint workshop

>> We are looking forward to welcoming you. <<