

SPECIAL SESSION

NDE 4.0

ORGANIZED AND CHAIRED BY: Vrana, Johannes & Laracca, Marco

ORGANIZATION: Vrana GmbH & Sapienza Università di Roma

CONTACT EMAIL: johannes@vrana.net & marco.laracca@uniroma1.it

OBJECTIVE AND TOPICS: NDE 4.0 revolutionizes the concept of Non-Destructive Evaluation intersecting NDE and the well celebrated Industry 4.0 paradigm by means of the digital transformation and digitalization, where digital infrastructures and applications are used to exploit new business models and value-added chains. The NDE 4.0 paradigm aims to create a digital ecosystem where key concepts such as informatization, artificial intelligence, digital twins, IIoT, interoperability, mobile networking, blockchain, big data and data science, autonomy, and data market are combined to integrate cyber-physical systems to transform the human intervention in NDE, to enhance the NDE performances and to create value from the data.

Areas of interest include, but are not limited to:

- NDE 4.0
- Leadership in NDE 4.0
- Standardization for NDE 4.0
- IIoT, Interfaces, Semantic Interoperability, and Data Formats
- Cyber-physical loops
- Digitalization
- Digital Transformation
- Data Spaces
- Digital Infrastructure
- · Legislation for Digital Infrastructure
- Reliability for NDE 4.0
- · Digital Twin and Digital Thread
- Smart Factory, Smart Sensors, Smart Probes
- · Ledger Technologies and Blockchains
- Industry 4.0
- NDT Workflow Management

All the instructions for paper submission are included in the conference website: https://www.ecndt2026.org