



TITLE OF THE WORKSHOP: Digital Twins for Industry and Facility Management

ORGANIZER (full name of the organization and logo): ART-ER in the name of BONFIGLIOLI (leader) and the other partners of IoTwins project and as leader of Dissemination and Communication WP

IoTwins Project

Partnership:

1. **Coordinator** Bonfiglioli Riduttori

Partner

2. ALMA MATER STUDIORUM - UNIVERSITA' DI BOLOGNA
3. ART-ER ATTRACTIVENESS RESEARCH TERRITORY
4. BARCELONA SUPERCOMPUTING CENTER - CENTRO NACIONAL DE SUPERCOMPUTACION
5. BEWARRANT
6. CENTRE TECHNIQUE DES INDUSTRIES MECANIQUES
7. CINECA CONSORZIO INTERUNIVERSITARIO
8. ECOLE NATIONALE SUPERIEURE D'ARTS ET METIERS
9. ESI GROUP
10. ETXE-TAR, S.A.
11. FILL GESELLSCHAFT MBH
12. FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.
13. FUTBOL CLUB BARCELONA ASOCIACION
14. GCL INTERNATIONAL SARL
15. ISTITUTO NAZIONALE DI FISICA NUCLEARE
16. KK-ELECTRONIC a/s
17. MARPOSS SpA
18. SIEMENS AKTIENGESELLSCHAFT
19. SIEMENS AKTIENGESELLSCHAFT OESTERREICH
20. TECHNISCHE UNIVERSITAET BERLIN
21. THALES SIX GTS FRANCE SAS
22. TTTECH COMPUTERTECHNIK AG
23. TTTECH Industrial

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TARGET GROUP/S (who should attend?):

- Companies
- Universities and Research Bodies
- Policy makers

WHY TO ATTEND:

To experience a Triple Helix best practice of an H2020 funded project in generating innovation (and related economic benefits) thanks to the cooperation between industry and academia, with the support of authorities, in the field of Artificial Intelligence, Big Data and Digital Twins - applied to industry and to the management of strategic facilities.

MAIN CONTENTS:

IoTwin is a European project that, thanks to the **cooperation** of renowned representatives of **academia** and **industry**, aims to build a reference architecture for the development of efficient and distributed digital twins for specific **manufacturing and facility management domains**.

Through the same methodology, grounded on the concept of **IoT, AI** and **Cloud**, 12 dedicated large-scale testbeds will collect large amounts of data to generate and refine the associated **digital twins** with the ambition of predicting the dynamics and temporal evolution of the system and processes involved.

IoTwin digital twins will improve the **efficiency** of production processes and of facility management with **positive economic impact** on operations. The **replicability** of the achieved results will be demonstrated in similar scenarios and new application areas will be determined, finally bringing to the development of **new business models**.

Key words

Industry 4.0, Manufacturing, digitalization, Predictive maintenance, Big Data, Internet of Things, Artificial Intelligence, Business Transformation.

PRESENTER: (NAME, SURNAME, AFFILIATION):

- **Francesco Millo**, Head of CEO Office, Bonfiglioli
- **Giuseppe Di Modica**, University of Bologna
- **Fernando Cucchiatti**, Head of Data Analytics and Visualization, Barcelona Supercomputing Center

SHORT BIO AND PASSPORT-PHOTO OF THE PRESENTER:



Francesco Millo, Head of CEO Office, Bonfiglioli, Italy

Francesco holds a PhD in Economics and Finance at the University of Verona.

Afterward he worked as management consultant at BCG, developing strategic projects in several industries (Industrial; Banking; Tourism; Fast Moving Consumer Goods; Insurance; ...).

Today he is the Strategy and M&A Director at Bonfiglioli (a manufacturing company producing gearboxes, electric motors and inverter).



Dr. Giuseppe Di Modica received MSc and PhD degrees in Computer Science Engineering from the University of Catania, Italy. He is currently assistant professor at the Department of Computer Engineering - University of Bologna, Italy. His research interests include Cloud/Edge/IoT Computing, Big Data and Microservices. He has co-authored more than 90 papers in top-tier peer-reviewed conferences and journals. He is in the Program Committee of prestigious conferences and has authored many reviews for several international scientific journals. He is the owner and co-founder of AllInCloud s.r.l., a spin-off of the University of Catania that supplies Cloud Computing and Big Data consultancy services.



Fernando Cucchietti, Head of Data Analytics and Visualization, Barcelona Supercomputing Center

Fernando leads the Data Visualization and Analytics Group at the Barcelona Supercomputing Center (BSC).

He holds a Ph.D. in quantum computing, and currently works on data visualization for science (data-heavy graphical interfaces, images, and videos), data science applied to industrial problems (machine learning and artificial intelligence), and scientific visualization for dissemination.

VIRTUAL STAND

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