

ANNO ACCADEMICO 2022/23

# Servizi e innovazione per Industria 4.0 (SII40) - Corso di Perfezionamento/Formazione

DIREZIONE

Tortonesi, Dipartimento di Matematica e Informatica mauro.tortonesi@unife.it

Prof. Mauro

## PROGRAMMA DELLE ATTIVITÀ

### PERCORSO COMUNE

Data	Ora	Docente	Modulo	Modalità
31/3/2023	9:30-12:30	Mauro Tortonesi (Unife)	Course Presentation and introduction to Big Data in Industry 4.0	Presenza (Bi-Rex)

### PERCORSO STUDENTI

Data	Ora	Docente	Modulo	Modalità
1/4/2023	9:30-12:30	Elena Mainardi (Unife)	Introduction to Industrial Automation and PLCs	Remota
14/4/2023	14-17	Francesco Meoni (Bi-Rex)	An example of a digital factory integrated with 4.0 technologies: the BI-REX Pilot Line	Presenza (Bi-Rex)
15/4/2023	9:30-12:30	Marcello Bonfé (Unife)	Introduction to Industrial Robotics and Control Networks	Remota
21/4/2023	14-17	Gianmarco Moretti (Bi-Rex)	Infrastructure and industrial data collection tools for Smart Manufacturing applications	Remota
22/4/2023	9:30-12:30	Mauro Tortonesi (Unife), Edoardo Reggiani, Luca Neri e Davide Bar	Digital Manufacturing: from IIoT to Digital Twin and Operations Management	Remota
28/4/2023	14-17	Roberto Lazzarini (Carpigiani Group)	Data centric approaches to product reliability and process quality optimization in Carpigiani Group	Remota
29/4/2023	9:30-12:30	Filippo Poltronieri (Unife) e Marco Govoni (Bonfiglioli Riduttori)	Big Data and Industrial IoT solutions: the Bonfiglioli Riduttori experience	Remota
5/5/2023	14-17	Cesare Stefanelli (Unife) e Lorenzo Maldina (IMA)	Big Data in the Packaging Valley: the IMA Group perspective	Presenza (Bi-Rex)

### PERCORSO LAVORATORI

Data	Ora	Docente	Modulo	Modalità
1/4/2023	9:30-12:30	Filippo Poltronieri (Unife)	Introduction to Python programming	Remota
14/4/2023	14-17	Carlo Giannelli (Unife)	Introduction to Cybersecurity	Remota
15/4/2023	9:30-12:30	Elena Bellodi (Unife)	Modern Databases - Beyond the relational model	Remota
21/4/2023	14-17	Giacomo Bettini (Unife)	Cloud Computing for Industry 4.0: Platforms and Tools	Remota
22/4/2023	9:30-12:30	Elena Bellodi (Unife)	Machine Learning - Fundamentals	Remota
28/4/2023	14-17	Mattia Fogli (Unife)	Blockchain	Remota
29/4/2023	9:30-12:30	Damiano Azzolini (Unife)	Introduction to containers: best practices and technologies	Remota
5/5/2023	14-17	Riccardo Zese (Unife)	Introduction to Deep Learning	Remota

**PERCORSO COMUNE**

<b>Data</b>	<b>Ora</b>	<b>Docente</b>	<b>Modulo</b>	<b>Modalità</b>
6/5/2023	9:30-12:30	Mauro Tortonesi (Unife)	Modern Big Data platforms: technologies, programming paradigms, and architectures	Remota
12/5/2023	14-17	Pal Varga	Industrial IoT, Cyber-Physical Systems and Industry 4.0	Remota
13/5/2023	9:30-12:30	Simon Dahdal	Python for Data Science	Remota
19/5/2023	14-17	Bartolini Claudio	Enabling Machine Intelligence in Industrial Settings	Remota
20/5/2023	9:30-12:30	Alessandro Gilli	Big Data: From Ingestion to Visualization	Remota
26/5/2023	14-17	Marco Alberti (Unife)	Introduction to DevOps	Remota
27/5/2023	9:30-12:30	Simon Dahdal	MLOps for Industry 4.0	Remota
9/6/2023	14-17	Gianluca D'Elia	Condition Based Maintenance of Mechanical Systems through Vibration Analysis	Remota
10/6/2023	9:30-12:30	Elkhatib Yehia	Using ML for system deployment and operation	Remota
16/6/2023	14-17	Steven Latré	5G-related standards and protocols for Industry 4.0	Remota
17/6/2023	9:30-12:30	Luca Foschini	Computational environments for Industry 4.0: the Cloud Continuum	Remota
23/6/2023	14-17	Stefano Carpin	Deep Reinforcement Learning and/or Collaborative/Mobile Robotics	Remota
24/6/2023	9:30-12:30	Alessandro Gilli	Big Data: Modern Storage Solutions	Remota
30/6/2023	14-17	Pietro Micheli	Measurement and data-informed decision-making to improve sustainability and supportindus	Remota
1/7/2023	9:30-12:30	Filippo Poltronieri (Unife)	Containerization and IT Automation for Industry 4.0	Remota
7/7/2023	14-17	Ifelice Bruno	How to turn an idea into innovation: the Silicon Valley model and example in the Industry4.0	Remota
8/7/2023	9:30-12:30	Giuseppe Serra	Computer Vision and Natural Language Processing for Industrial Applications	Remota
14/7/2023	14-17	Carlo Giannelli (Unife)	Cybersecurity for Industry 4.0	Remota
15/7/2023	9:30-12:30	Joe Weiman	Digital Strategy and Innovation	Remota
21/7/2023	14-17	Filip De Turck	Immersive holographic-type communications and their applications in Industry 4.0	Remota
22/7/2023	9:30-12:30	Marco Gavanelli (Unife)	Optimization for Industrial Processes	Remota
28/7/2023	14-17	Lisandro Zambenedetti Granville	(To be defined)	Remota
31/7/2023	9:30-12:30	N/A	Final exam and project presentations	Presenza (Unife)