SII4O
Services Innovation for industry 4.0

Digital Industry Excellence Project

Second EDITION PROGRAM - first part
Promoted by: Università di Ferrara

		Academic Curriculum
01/04/2023	9:30 - 12:30	**Elena Mainardi** *Introduction to Industrial Automation and PLCs*
14/04/2023	14:00 - 17:00	**Francesco Meoni** *An example of digital factory integrated with 4.0 technologies: the BI-REX pilot*
15/04/2023	9:30 - 12:30	**Marcello Bonfé** *Introduction to Industrial Robotics and Control Networks*
21/04/2023	14:00 - 17:00	**Gianmarco Moretti** *Infrastructures and industrial data collection tool form Smart Manufacturing*
22/04/2023	9:30 - 12:30	**Mauro Tortonesi** *Digital Manufacturing: from IIoT to Digital Twin and Operations Management*
28/04/2023	14:00 - 17:00	**Franck Ngatcha** *Data centric approaches to product reliability and process quality optimization in Carpigiani Group*
26/04/2023	9:30 - 12:30	**Filippo Poltronieri, Giuseppe Colosi, Massimiliano Vignoli, Marco Govoni** *Big Data and industrial IoT solutions: the Bonfiglioli Riduttori experiences*
05/05/2023	14:00 - 17:00	**Cesare Stefanelli, Lorenzo Maldina** *Big Data in the Packaging Valley: the IMA perspective*

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		Worker Curriculum
01/04/2023	9:30 - 12:30	**Filippo Poltronieri** *Introduction to Python programming*
14/04/2023	14:00 - 17:00	**Carlo Giannelli** *Introduction to Cybersecurity*
15/04/2023	9:30 - 12:30	**Elena Bellodi** *Modern databases: beyond the relational model*
21/04/2023	14:00 - 17:00	**Claudio Bettini** *Cloud Computing for Industry 4.0: Platform and Tools*
22/04/2023	9:30 - 12:30	**Damiano Azzolini** *Introduction to containers: best practices and technologies*
28/04/2023	14:00 - 17:00	**Elena Bellodi** *Machine Learning - Fundamentals*
26/07/2023	9:30 - 12:30	**Mattia Fogli** *Blockchain*
28/04/2023	14:00 - 17:00	**Riccardo Zese** *Introduction to Deep Learning*

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		Common Curriculum	
6/5/2023	9:30 - 12:30	**Yehia Elkhatib** *Using ML for system deployment and operation*	
12/5/2023	14:00 - 17:00	**Simon Dahdal** *Python for Data Science*	
13/5/2023	9:30 - 12:30	**Simon Dahdal** *MLOps for Industry 4.0*	
19/5/2023	14:00 - 17:00	**Mauro Tortonesi** *Modern Big Data processing: tecnologies, programming paradigms, and architectures*	
20/5/2023	9:30 - 12:30	**Alessandro Gilli** *Big Data: From Ingestion to Visualization*	
26/5/2023	14:00 - 17:00	**Marco Alberti** *Introduction to DevOps*	
27/5/2023	9:30 - 12:30	**Filip De Turck** *Immersive holographic-type communications and their applications in Industry 4.0*	
9/6/2023	14:00 - 17:00	**Alessandro Gilli** *Big Data: Modern Storage Solutions*	

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		Common Curriculum
16/6/2023	9:30 - 12:30	**Pal Varga** *Industrial IoT, Cyber-Physical Systems and Industry 4.0*
17/6/2023	14:00 - 17:00	**Luca Foschini** *Computational environments for Industry 4.0: the Cloud Continuum*
23/6/2023	9:30 - 12:30	**Lisandro Zambenedetti Granville** *An introduction to self-driving networks and intent-based networking*
24/6/2023	14:00 - 17:00	**Joe Weinman** *Digital Strategy and Innovation*
1/7/2023	9:30 - 12:30	**Gianluca D'Elia** *Condition Based Maintenance of Mechanical Systems through Vibration Analysis*
7/7/2023	14:00 - 17:00	**Iafelice Bruno** *How to turn an idea into innovation: the Silicon Valley model and example in the Industry 4.0 fields*
8/7/2023	9:30 - 12:30	**Giuseppe Serra** *Computer Vision and Natural Language Processing for Industrial Applications*
14/7/2023	14:00 - 17:00	**Carlo Giannelli** *Cybersecurity for Industry 4.0*

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		Common Curriculum	
15/7/2023	9:30 - 12:30	**Filippo Poltronieri** *Containerization and IT Automation for Industry 4.0*	
17/7/2023	14:00 - 17:00	**Pietro Micheli** *Measurement and data-informed decision-making to improve sustainability and support industry 4.0*	
21/7/2023	9:30 - 12:30	**Carpin Stefano** *Reinforcement Learning*	
22/7/2023	14:00 - 17:00	**Marco Gavanelli** *Optimization for Industrial Processes*	
28/7/2023	9:30 - 12:30	**Luciano Gaspary** *An Introduction to Programmable Networks and their Application to Industry 4.0*	
31/7/2023	14:00 - 17:00	**Final exam and project presentations**	