



Machine Learning in Industry 4.0

ONLINE TRAINING

09 - 23 SEPTEMBER 2022

More information at:

www.eitmanufacturing-east.eu



Co-funded by the
European Union



Programme:

Block 1:

09 SEPTEMBER 2022

- Theory, basic ideas of Machine Learning (ML) & ML landscape
- Support Vector Machines, Decision Trees
- Random Forests and Ensemble Learning

Block 2:

12 SEPTEMBER 2022

- Theory and basic ideas of Neural Networks (NN) & Deep Learning (DL)
- Quick tour of TensorFlow and Keras
- Solving a regression problem
- MNIST dataset: The Hello World of DL

19 SEPTEMBER 2022

- Convolutional Neural Networks (CNNs)
- Manufacturing/industry-related examples
- Transfer learning on CNNs
- Manufacturing/industry-related example

21 SEPTEMBER 2022

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- Manufacturing/industry-related examples
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Block 3:

23 SEPTEMBER 2022

- Wrap up, repetition & outlook
- High-Performance Computing (HPC)
- Training a NN on an HPC cluster
- Means and methods of improving performance

The lectures will take place from 09:00 - 16:00 CEST.
All participants will receive a certificate of attendance.

Lecturers:



Claudia Blaas-Schenner

Holds a Ph.D. in Technical Physics from TU Wien, has a strong background in computational materials science, and more than 20 years of experience in applied High-Performance Computing (HPC). Currently, she is affiliated with the VSC Research Center of TU Wien, Austria, where she is involved in teaching and is responsible for developing a training and education programme in HPC and HPC-related topics.



Philipp Danninger

Has a Master's degree in Economics (Lund University School of Economics and Management) and a Master's degree in Data and Information Science (FH Joanneum, Graz). He has gained practical experience as a research assistant at Vienna University of Economics and Business, has worked as a market analyst in the private sector and is currently a junior researcher at the Know-Center in Graz.

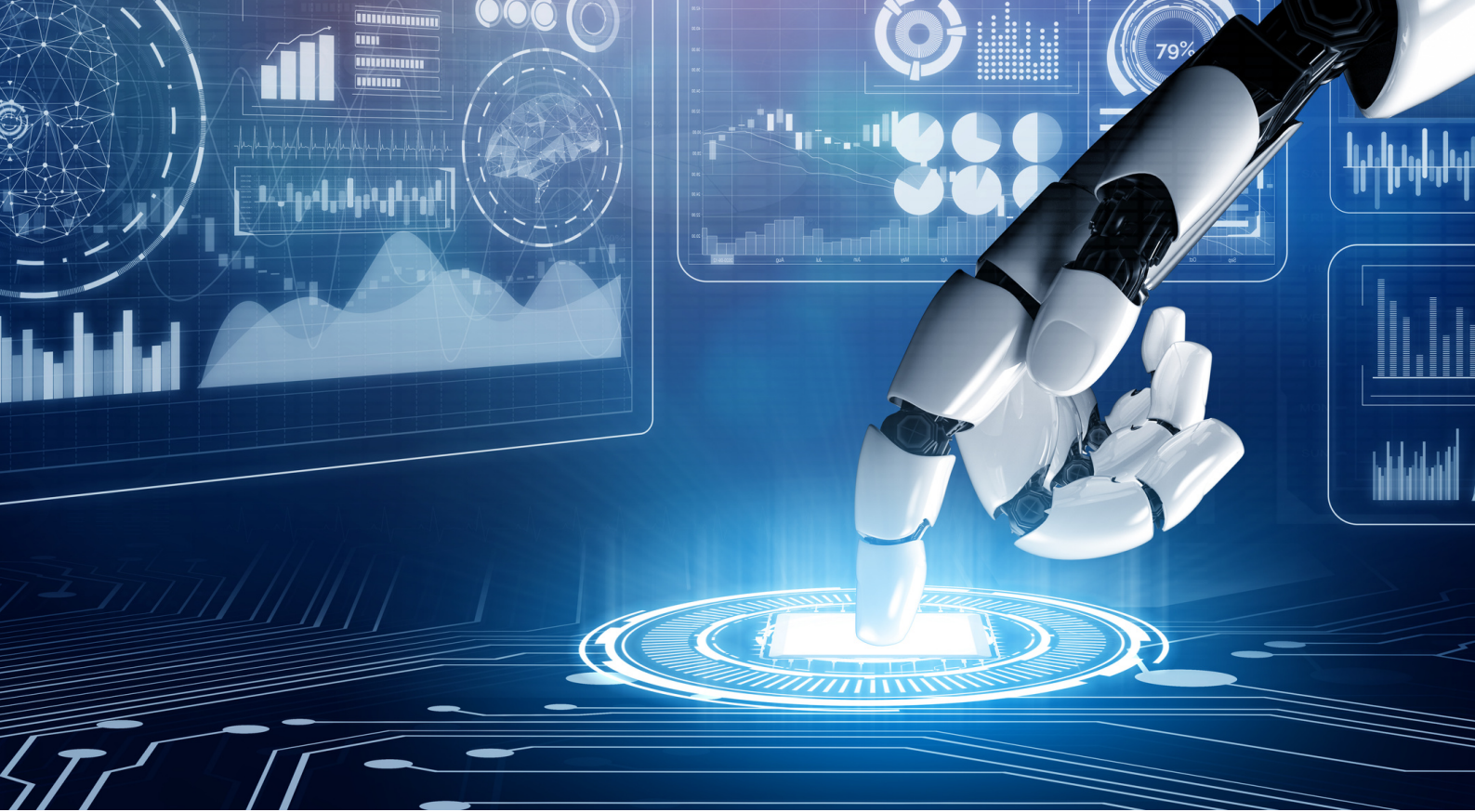


Simeon Harrison

Has gained experience in teaching high school mathematics for eight years. He is currently affiliated with EuroCC Austria and TU Wien and responsible for organizing and conducting trainings for industry users in the area of High Performance Computing, High Performance Data Analytics and Artificial Intelligence.

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Machine Learning Online Course for Manufacturing

Machine Learning in Industry 4.0 is a 5-days interactive online training, especially designed for professionals (engineers and other technical professionals, as well as students) interested in the basic theory of Machine Learning (for example, theory on the landscape, support vector machines, decision trees etc.), but who would also like to learn about Deep Learning and its practical application with solving a regression or classification model problem.

By the end of the training the participants will be able to understand the basic concepts of Machine Learning and its application to the Manufacturing and Industry context. The training is interactive with application of real case examples across all days.

**Price for a full course with certificate of attendance:
300 EUR/person***

**Register now at:
www.eitmanufacturing-east.eu**

*Prices exclude VAT