



Introduction to

Machine Learning
for Civil Engineering and Architecture



Politecnico
di Torino



ArtIStE

Artificial Intelligence in Structural Engineering



Machine Learning
Academy



In conjunction with

ARTISTE 2025 Conference
Artificial Intelligence in Structural Engineering

DOCTORAL COURSE & SUMMER SCHOOL

3-Day Intensive Course on Machine Learning
Tailored for Architecture & Civil Engineering
PhD Candidates, Researchers, and Enthusiasts

I. Venanzi
University of
Perugia, Italy

M.M. Rosso
Politecnico di
Torino, Italy

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C. Demartino
Roma Tre
Univ., Italy

M. Broccardo
University of
Trento, Italy

G. Quinci
Roma Tre
Univ., Italy

G. Quaranta
Sapienza Univ.
of Rome, Italy



Day 1 - Sept, 18th

**Machine Learning
Basics &
Data Exploration**

Python Fundamentals,
Machine Learning Basics,
Data Exploration,
Classifiers, Gaussian
Process Regression

Day 2 - Sept, 19th

Neural Networks

Basics, Feed-Forward ANN,
Advanced Neural Networks:
CNNs, RNNs, LSTM,
Autoencoders, GANs

Day 3 - Sept, 20th

Regression Methods

Decision Trees,
Random Forests, Boosting,
Symbolic Regression,
Computational Intelligence

VENUE

Room 7

Politecnico di Torino

C.so Duca degli Abruzzi, 24
10129, Turin, Italy



SUMMER SCHOOL ARTISTE 2025
In-person & Remote Attendance

Mastering your Research in Civil Engineering &
Architecture with cutting-edge Machine Learning
IN JUST 3 DAYS!

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In collaboration with



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For More Info **CONTACT US**

EXPECTED GOALS

- ✓ Establish Core ML Foundations
- ✓ Hands-On in Google Colab
- ✓ Learn Python with PyTorch, TensorFlow, Scipy and more
- ✓ Explore Symbolic Regression & Computational Intelligence
- ✓ Optimize Model Performance
- ✓ Integrate Advanced Techniques into your Research Field

REGISTRATION

NO registration fees, but only a contribution is required for covering event logistics and services:

In-person 150 € + VAT
Remote Attendance 100 € + VAT

Pre-register on our website & book your spot before August, 31st 2025

