Fraunhofer
PORTUGAL

FRAUNHOFER CENTER FOR ASSISTIVE INFORMATION AND COMMUNICATION SOLUTIONS – AICOS

The Intelligent Systems Group at Fraunhofer AICOS is driving the introduction of Artificial Intelligence capabilities to the Industry, and have prepared a set of training series on Machine Learning tailored to the challenges of our partners.

“The Machine Learning Workshop organized by Fraunhofer Portugal was a very interesting training session, led by a group of excellent trainers, merging theoretical knowledge with practice in software laboratory and client‘s own data. To be repeated!

Prof. Dr. Pedro Vieira, Head of R&D at CELFINET

FORMAT
Workshop with theoretical and hands-on sessions

STARTING
Regularly and on request

DURATION
According to client’s needs

AUDIENCE
From beginner to advanced levels to gain competences in Machine Learning

COURSE FEE
Under consult

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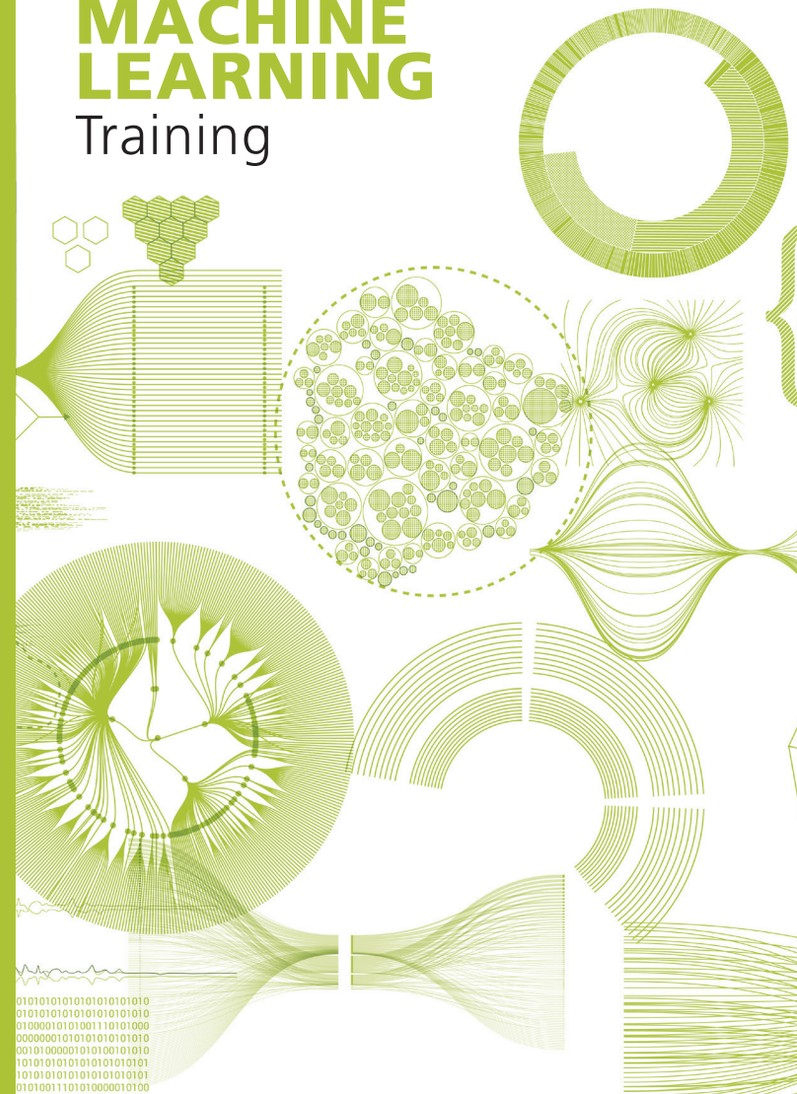
MACHINE LEARNING
Training



MACHINE LEARNING TRAINING

Overview

A new digital transformation is currently taking place, boosted by the exponential availability of accessible data and of the required computing power to process it. This is leading to the widespread use of intelligent systems based on Machine Learning with potential to disrupt almost every industry field, transforming the ways of production, management and governance.

Fraunhofer AICOS is offering a custom-built training series on Machine Learning, composed of theoretical and hands-on sessions. The training is based on practical examples, exploring the multiple methods and uses of Machine Learning, with the aim of promoting a deeper understanding of real problems and delivering tangible outcomes that have an impact in the short term. Our partners are challenged to bring their own data in order to create a truly tailored learning experience.

Key benefits

- Selected training sessions, focused on your company's specific business environment;
- Open source tools developed at Fraunhofer AICOS are available to speed up the learning and implementation process (TSFEL https://github.com/fraunhoferportugal/tsfel);
- Increase Machine Learning competences applied on your real problems.

Contents

An Introduction to Machine Learning
Basic concepts of ML, presenting base datasets structures, understanding the principles of supervised and unsupervised learning, neural networks and validation techniques.

Machine Learning at Fraunhofer AICOS
Examples of application scenarios both in time series and image contexts within our innovation portfolio: Motion, Nutrition, Derma, Optha, Micron, Audit.

Partner Machine Learning Challenges
Share the contexts where the introduction of ML in the partner workflow would boost productivity.

Hands-On (Using public datasets)
Every participant will work on public datasets and use Python tools to extract information, implement and train a classifier.

Hands-On (Using your own data)
Using partners own data to demonstrate the potential of Machine Learning to solve their own real challenges.

Note: The hands-on sessions are prepared using Python. An additional one-day Python fundamentals course is also available on request.

Hugo Gamboa is an Assistant Professor at the Physics Department of the Sciences and Technology Faculty of the Universidade Nova de Lisboa, and Senior Scientist at Fraunhofer AICOS.
PhD in Electrical and Computer Engineering from Instituto Superior Técnico, Technical University of Lisbon, he founded PLUX, a technology-based innovative startup in the field of systems and wireless medical sensors.

Inês Sousa is the Head of Intelligent Systems Group at Fraunhofer AICOS. PhD in Biomedical Engineering from Técnico Lisboa – University of Lisbon, she has a demonstrated history of working in research of practical utility and in close contact with industry, in topics related to Machine Learning and inertial sensors data processing.