Laser Machine Embedded Artificial Intelligence

**Benefits**

*Ensuring* the final workpiece specifications and quality.

*Supplying* a new solution able to quickly learn and improve by itself thanks to the implementation of machine learning functionalities.

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**ICLOS**

**IOT 4 INDUSTRY**

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35% PRODUCTIVITY IMPROVEMENT
As a leader in industrial Artificial Intelligence techniques, PEPITe has partnered with Lasea (Liège Belgium) to collaborate on the ICLOS project (Intelligent Closed-loop Laser Operation System).

The objective of the ICLOS project is to develop a closed-loop system using embedded Artificial Intelligence in order to automate the laser machining process. This automated and intelligent machine will lead to improved laser process quality and productivity.

This project has received funding from the European Union’s Horizon 2020 research and innovation program under grant agreement No 777455.

Laser parameters were defined by parametric processing studies by scanning all possible combinations between numerous parameters (e.g.: laser beam power, speed, frequency, etc.) to achieve the desired results. These manipulations are often time-consuming and machining possibilities are limited.

In a rapidly laser industry, the ability to quickly identify optimal laser parameters provides a key competitive advantage.

The ICLOS project offers broader possibilities in terms of laser parameters configuration and machining results. By embedding a 3D measurement system and Artificial Intelligence within an advanced machining control system, the ICLOS project provides higher flexibility to the laser manufacturing process.