CoopWeld

PARTNERS | CONTACTS

SARKKIS robotics

Eng. Pedro Malaca
Tlm: +351 919 158 492
pedro.malaca@sarkkis.com

INESCTEC TECHNOLOGY & SCIENCE

Germano Veiga, PhD
Tlm: +351 918 187 393
germano.veiga@inesctec.pt

NORFER MADE OF STEEL

Eng. José Pinto
Tel. +351 256 420 910
josepinto@norfer.pt

iSQ

Eng. Víctor Ferreira
Tel. +351 214 228 100
vmferreira@isq.pt

NORTE2020 PROGRAMA OPERACIONAL REGIONAL DO NORTE

PORTUGAL 2020

UNIÃO EUROPEIA Fundo Europeu de Desenvolvimento Regional

www.sarkkis.com

CoopWeld

Collaborative Robotics for Structural Steel Fabrication

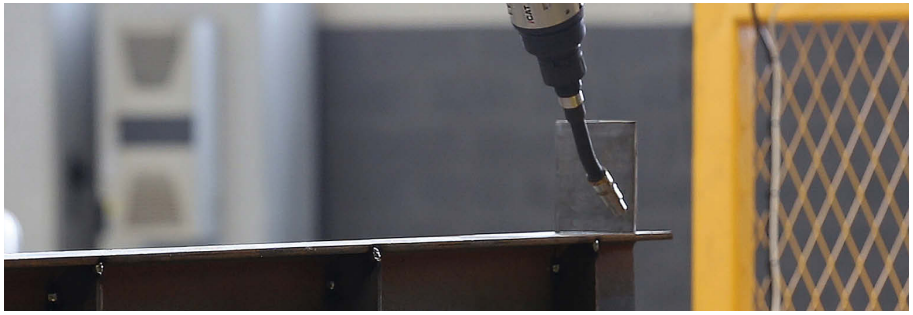
SARKKIS robotics

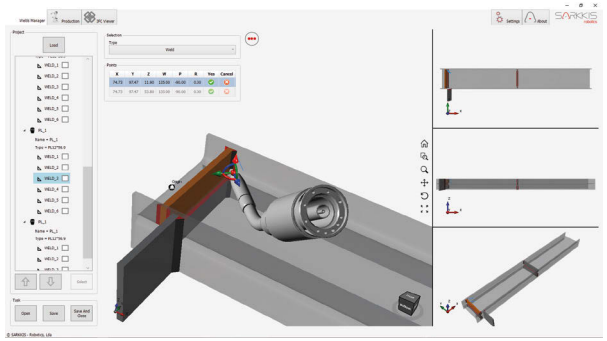
CoopWeld

Structural steel construction includes operations of fitting a number of steel parts upon a main component, thus forming assemblies.

The welding operations, for creating such assemblies, are performed mostly manually, especially if considering an SME's scenario. With the advent of BIM, Building Information Modelling and the spread of digitalization throughout the steel construction sector enabled the emergence of new opportunities for robotics viable also for small batch production.

The combination of flexible robotics with advanced sensing and intuitive human-machine interfaces makes way for the creation of automated systems presenting high productive efficiency and reachable to SME's and their needs.





Case Study

- Structural steel construction - current market;
- Welding of structural components in production scenarios highly customized;
- Small batches / high variety;
- 100% compatibility with digital formats for construction (BIM - Building Information Modelling).

Technological innovation

- Projection mapping for intuitive human-machine interaction;
- Automatic collision free path planning;
- Advanced sensing integrated with digital project information to handle geometric uncertainties;
- Intuitive feedback suitable for the shop-floor scenario through the usage of projection mapping;

Benefits

- SME enabled solution for welding of components in the structural steel sector;
- Cost-effective production in highly variable production scenarios;
- Seamless integration with new digital formats for construction.