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Latest news

INDUSTRIAL ROBOTIC INSPECTION: AN INNOVATIVE SOFTWARE FRAMEWORK

April, 2019

CRF is involved in the SPIRIT Project, a research plan in the field of *Industrial Robotics* of 'Horizon 2020, the EU Research and Innovation Programme', which aims to improve the standard level of the *robotic quality control inspections*, generating a self-reconfigurable environment, such as to cut out long and expensive re-programming processes.

The 'WCM R&I' Business Line in CRF, which has always been dynamic both on automation and quality monitoring, provides its consolidated experience and professionality in the process of inspection's systems evaluation.

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The commitment of CRF in the field of Industrial Robotics achieves its own application in the SPIRIT Project, a funded research plan in the ‘European Horizon 2020 Programme’.

Aim of the project is to streamline and simplify the operations of robotic inspections through the development of a dedicated software environment, effective for the inspection of complex parts such as automotive and aerospace components.

This system, starting from a 3D model of the product to be controlled, plans the optimal route of the robotic arm. Once finished the inspection tasks, creates the defects mapping detected by the sensors on board robot.

The robotic arm will also operate the inspection process in a 'reactive' manner, adapting to any environmental changes due to differences in the shape of the examined object or to the presence of obstructions.

Therefore, this new platform will guarantee an outstanding improvement in operational accuracy and in the control cycle. As a consequence, it will substantially reduce the engineering costs of robotic inspection routes by 80%.

The all-around and reliable platform will also make it easy to extend inspection to different types of products, thanks to a fast integration with multiple quality control technologies and robotic applications.

CRF WCM R&I has been proactive on this subject for many years through various collaborative projects at European level. The acquired skills, thanks to a strong cooperation with an extensive European network of technological partners, allow us to offer targeted consulences aiming at the application of these new studies and the evaluation of the achievable benefits.

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