



Contribution ID: 472

Type: **not specified**

P4.136 New methodology to improve execution efficiency and safety in remote maintenance tasks

Thursday, 20 September 2018 11:00 (2 hours)

Remote Handling (RH) maintenance in hazardous environments is a challenging task to be performed on systems and components to ensure that they work as per design and that the requirements on the plant availability are fulfilled. According to this, systems and components have to be designed for easy assembly. This approach leads to an improvement and efficient maintenance process, reducing assembly and maintenance time and costs. Over the time, guidelines and methodologies have been developed in order to support design, assembly and manufacturing stages such as Assembly Evaluation Method (AEM) or Design For Assembly method (DFA). However, these methodologies cannot cover all the design aspects to be implemented for the remote maintenance of systems and components.

In this article, a proposal for a new methodology is presented with the aim of improving the execution, efficiency and safety of remote maintenance tasks. The methodology is composed of a set of nine rules, which are divided into specific blocks with the aim of simplifying the current complex procedures. These blocks are related to: design of systems and RH equipment, logistics, development of maintenance procedures, and simulation of RH tasks. This methodology relies on the initial cooperation between the different working teams involved in the components life cycle. This approach leads to an iterative process that allows the optimization, design and proposal of improvements. The result is a speed up of the process and more robust concept of maintenance.

Thereby, the application of this new methodology has derived in a simplification of the procedures, less system failures, and saving of costs and time. Considering that the method provides specific work sequences and control, it promotes collaboration and integration of different areas of expertise associated with the tasks.

Presenter: Dr COLOMA, Sofia (Centre for Automation and Robotics CAR UPM-CSIC)

Session Classification: P4