Zero-defect manufacturing strategies towards on-line production management for European factories

www.z-fact0r.eu

Objective

The z-fact0r solution comprises the introduction of five multi-stage production-based strategies targeting (i) the early detection of the defect (z-DETECT), (ii) the prediction of the defect generation (z-PREDICT), (iii) the prevention of defect generation by recalibrating the production line (multi-stage), as well as defect propagation in later stages of the production (z-PREVENT), (iv) the reworking/remanufacturing of the product, if this is possible, using additive and subtractive manufacturing techniques (z-REPAIIR) and (v) the management of the afore-mentioned strategies through event modeling, key performance indicators monitoring and real-time decision support (z-MANAGE).

Partners

The z-fact0r Project involves a total of thirteen (13) EU-based partners, representing both industry and academia. They have ample experience in cutting-edge technologies and active presence in the EU manufacturing.

Project Overview

The z-fact0r project lasts 42 months (2016-10-01 to 2020-03-31) and is divided into four phases.

Phase 1:
Technology generation and experimentation. It includes R&D activities for the development of z-fact0r subsystems as well as tests on technologies in laboratories.

Phase 2:
Integration and validation of the technologies. The aim is to prepare the system for its validation as a full and integrated prototype.

Phase 3:
Demonstration of the z-Fact0r results in the use-cases. The aim is to complete a z-fact0r prototype demonstration in the operating environments (TRL7).

Phase 4:
Project Management and Dissemination, Exploitation, and Communication Activities that run during the whole duration of the project.

The z-fact0r Project partners are based in several European countries

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