LEAN LAB WITH INDUSTRY 4.0 FEATURES

Application for the manufacturing industry - enable hands-on training of new manufacturing methods and organization

SUMMARY

A new Lean Lab concept with integrated Industry 4.0 features including digital twin concept, digital dashboard, predictive maintenance strategies, robotics, human-machine interaction. A facility able to handle highly complex manufacturing setups.

CURRENT SITUATION

Actual Lean Lab setup being digitalized and upgraded to have an Industry 4.0 standard. Digital version available, the new Lean Lab concept is setup.

SOLUTION

This will be an integrated facility from concept / idea with3D CAD / CAM design, simulation, AR/VR design and process review possibility. A 3D printer park and advanced robot lab with a small, large and cobot cell is part of the infrastructure. Sub-assemblies can be automated and transported by AGV’s to the Lean Lab factory for final assembly. In the Lean lab setup it is possible to simulate as well as setup sensors, which allows for condition based monitoring and predictive maintenance. The Lean Lab Industry 4.0 is open for any company.

INDUSTRIE 4.0 – FEATURES

Digitalization and interoperability of machines with the human including AR / VR and other interaction technologies.

STANDARDIZATION APPROACHES

Communication and automation standards are applied.

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REFERENCES

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PROJECT DESCRIPTION

The existing Lean Lab is being upgraded and modernized to also include automation / robotics and Industry 4.0 features to allow for adequate and advanced training of factory of the future concepts. The facilities will be located in an approx. 1000 sqm area to serve primarily SME sized companies.

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