

LIST PRODUCES INDUSTRY CHALLENGING IN-SITU LEARNING ASSISTANT WITH NO-NAIL BOXES

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LIST in partnership with the company No-Nail Boxes (NNB), a manufacturer of plywood folding boxes for a wide variety of industries based in Wiltz, are pleased to announce the launch of an in-situ training solution aimed at supporting and developing user skills of computer numerical control machines known as CNC. The result will be an Industry 4.0 challenger with an in-situ learning assistant for CNC machines.

It was in 2020 when LIST and NNB signed an experimental agreement as LIST was searching for real world conditions to develop a demonstrator. With their CNC wood milling machines, NNB proved to be the ideal candidate.

Marie Gallais, head of the project at LIST explained, “we started to experiment together with NNB because we wanted to develop something for industry - an assistant - but we needed access to a company with experience in this field, so they provided us with a machine, a wood milling machine in their factory, to create a prototype”.

But what exactly can the results of this prototype achieve? Marie clarified. “Imagine you have a CNC machine you don’t know how to use. We develop an assistant on a software which provides tasks you must complete on the CNC machine. You finish these tasks, and the software provides feedback on whether they have been done correctly or not and guide you to using correct materials and procedures, so that you learn in-situ”.

What is important in industry is that when production increases, more staff are needed, for example external employees who may not be acquainted with the machines they are to work on. Therefore, they must be trained very quickly. This prototype can resolve this issue and importantly, without disturbing the production agenda.

The main advantages of this are that users gain confidence directly on the job and mistakes and hazards can be avoided thanks to the system's feedback.

The assistant could also prove useful for small CNC Machines such as 3D Printing machines used for example in schools. "Or we can develop this assistant for other CNC machines used in factories," added Marie.

LIST now has the ability to propose a prototype TRL4 and 5 (Technology Readiness Level) meaning that the key functions are validated in laboratory environment.

The end of testing with No-Nail Boxes users is imminent, and promising results have been achieved for future adaptations in other production contexts and industries.

LIST & No-Nail Boxes in-situ training collaboration



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