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Senior RF/MS System Design Engineer at MyTool IT GmbH

Main product: ICOtronic

Aim: Developing tools with specialised sensors to analyse production data and improve manufacturing

MyTOOL IT

mytoolit.com

Tool holders with specialised sensors for a smoother production process

The project

The idea

The sensors of modern machines are universal and geared towards typical applications, but there are plenty of situations where specialised sensors are needed. We integrated those inside tool holders, because these are versatile, standardised pieces that connect tools and machines. This intimate relationship allows high-quality measurements, which, in turn, enable the optimisation of production parameters.

> Let's empower a new generation by fixing something and Instagramming #repair, so that this message can seep into our collective mind, alongside some beach photos.

Inspiration

Our inspiration was the ideal of the "smart factory": not just a collection of smart machines on the work floor, but ones that have a great potential to interact.

Unique selling points

Our ICOtronic was designed from the ground up to feature open interfaces: mechanically, it can connect to a huge variety of tools. From an information technology perspective, our open protocols facilitate integration in all kinds of systems. It is cost-efficient, enables real-time in-process control, and detects and circumvents chatter while producing.

Societal impact

The advantage of our innovation is two-fold. Firstly, specialised products can be quickly manufactured with few scrap parts. Secondly, dull and repetitive tasks can be taken over by a computer: the input of the people working on the floor can be automated, which reduces stress and the need to be constantly alert.

Supported by:

eit Manufacturing

Generated funding:
EUR 570 000

Start year:
2017

Challenge:
Converting production data into knowledge

EIT Community support

Thanks to the EIT Community's network, we gained access to new resources (machines, sensory equipment, etc.) and support in terms of machining and research know-how.

Teamwork

MyTool IT is a great combination of experts from different disciplines (electronics, software development, production) and the academic knowledge of TU Wien. So, one of the main advantages of this team is strong, interdisciplinary interaction at a high level!

The innovator

The beginning

Even as an electrical engineer, I always had a soft spot for machining. This field fascinates me since it is hundreds of years old, and it hands down loads of knowledge in so many ways. When I was approached by a small team of mechanical engineers, with a similar idea and a suitable project, I jumped at the chance.

Rewarding moments

The team is quite diverse and works closely together with academia and industry. In the beginning, it was not easy to find a common ground and language. Once the transition finally started, however, I was baffled by how quickly we went from a group of people to a team.

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