PRESS RELEASE

4.0 technologies for predictive maintenance on machine tools

- *During BIEMH, the Tekniker technology centre will showcase its capabilities on how to monitor the condition of industrial processes and equipment to achieve a higher degree of production efficiency.*

- *Technologies that can be incorporated to the digital ecosystems of manufacturers and companies that store, analyse and view data.*

[Eibar, May 17, 2022] - Improving maintenance for assets and processes by means of digital platforms that allow data generated by monitoring applications to be collected, stored, analysed and viewed on a platform is nowadays fundamental for industries. However, and to view data on a platform, you must first establish which parameters must be compiled on equipment or assets and understand how information can supplied via a digitised ecosystem.

The **Tekniker** technology centre, a member of the Basque Research and Technology Alliance (BRTA), will make the most of the upcoming edition of BIEMH by showcasing its wide range of digitising capabilities for equipment and processes in the machine tool sector to allow manufacturers and companies to obtain information that will optimise and increase production efficiency.

More specifically, Tekniker will exhibit the results obtained thanks to the technologies developed to be eventually incorporated to equipment to use several data platforms.

Data management and predictive maintenance

The first of these solutions is called "Tekniker Fingerprint", a methodology that monitors and manages use data and checks the condition of critical components for the early detection of malfunctions.

Basically, it is a controlled machine tool test that is performed on a regular basis, under vacuum and predefined conditions that can be applied to different types of industrial equipment.

The centre is also working on another rapid test for machine tools called "Tekniker geometric Fingerprint" that verifies their geometric status.

When compared with pre-established tolerances and as a function of the results obtained, it is now possible to know if a machine is able to operate more accurately and determine the current degree of accuracy of a given machine to allow technicians to decide whether an operation can be performed. A machine shutdown must be programmed to perform a complete calibration process if a result is not approved.

Tekniker has also developed a technology based on equipment data collection/monitoring called the "Tekniker Monitoring System" (TMS) equipped with signal processing and calculation capabilities that is associated with the Tekniker Fingerprint approach.

From its stand in hall 1, aisle C14, at the upcoming edition of the International Machine Tool Biennial, Tekniker will display its entire technological potential for the predictive maintenance of industrial assets based on viewing and storing data.

The elements mentioned above can be applied to machine tools or any other kind of equipment such as tribometric test benches or robots. All of these categories will be on display in the software to be presented at BIEMH.

This project has an impact on SDG9 – Industry, Innovation and infrastructures by contributing towards the economic and environmental pillars of sustainable development and society as a whole.

Concerning Tekniker

Tekniker is a technology centre specialised in Advanced Manufacturing, Surface & Product Engineering, and ICTs for manufacturing. Its mission is geared towards fostering growth and wellbeing through R&D&I actions aimed at society and enhancing competitiveness in the business fabric in a sustainable manner. Tekniker is a member of the Basque Research and Technology Alliance (BRTA).

Further information:

GUK ► Unai Macias
unai@guk.es | Tel. 690 212 067