The way to the Internet of Things

The efforts dedicated to this work are considered the preparation of a decentralized connection to an Internet of Things. From the view of the vibration system, it is meaningful to employ global connectivity since, without it, the system is only available and accessible across the local network consisting of the textile machine and the edge device.

The deployment of the IoT network should cover, apart from the connectivity, the communication security according to the CIA (confidentiality, integrity, and availability) Triad and AAA (authentication, authorization, and accounting) model, user privacy, and interoperability with defined semantics. The utilization of security measurements, in combination with the edge-based approach, is able to ensure the self-sovereign of monitored data, as it is never hosted in a public cloud, and access to it is carefully restricted.