My contribution to HOOS project

In late 2017, I was first introduced to the HOOS project, where I was informed about several shortcomings in the automation of the HOOS units. Early in 2018, I visited two sites where HOOS units are operating, specifically in Videle and Păcureți, to gain a comprehensive understanding of the system.

With an overview of the system and an automation manual in hand, I developed an advanced automation solution integrating the latest IoT/Industry 4.0 technologies. This solution offered flexible remote control, including remote software module programming, secure communication between automation and cloud, data storage both locally and in the cloud, real-time monitoring of operational parameters, and the convergence of industrial protocols with IoT.

The first automation system was installed at the Păcureți site in December 2018. Before this installation, I identified several issues with the automation of the winch that deploys the belt into the well. In June 2018, I installed the winch automation, which can be integrated at the communication level with the HOOS unit automation. This system included not only mechanical braking but also electromagnetic braking, allowing for smooth and precise belt deployment.