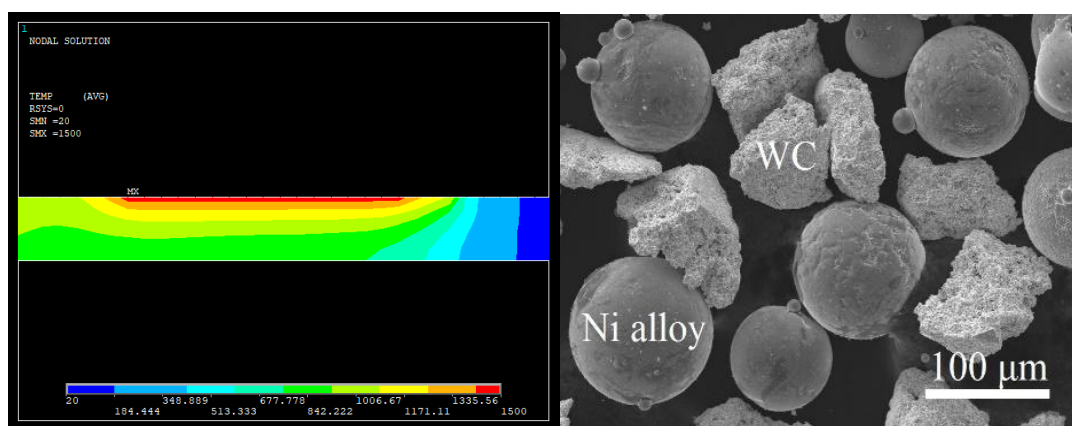


Engineering Faculty Science

Scientific activity at the Faculty of Engineering is carried out within the framework of the implementation of state budget, scientific and contractual programs.

The departments of the Faculty of Mechanical Engineering carry out a number of projects:

- "Development of resource-saving technology for the repair of long-length hydraulic cylinder rods of large-sized special equipment for industrial use with the possibility of restoring local damage at the site of its operation" 2020-2022 (supervisor, doctor of technical sciences, professor G.S. Zhetessova). This project is joint project with Vilnius Technical University named after Gedeminas.



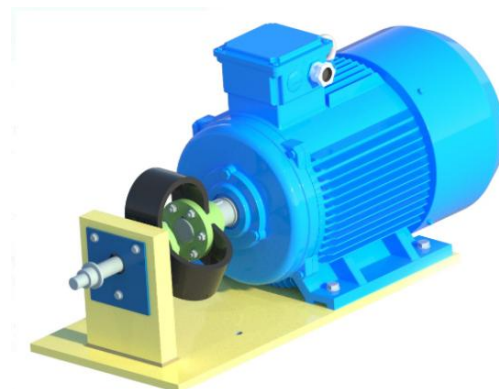
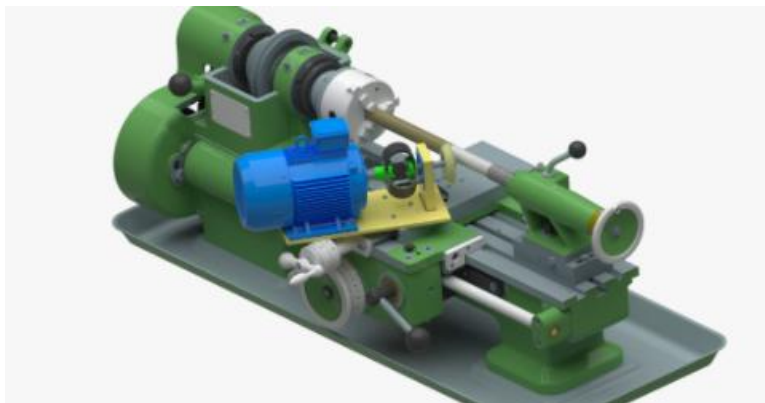
NiCrCoFeCBSi / WC-coating of hydraulic cylinder rods

- "Design and creation of prototypes of automated production control systems, remote monitoring and diagnostics of the microclimate in polymer agricultural sleeves for grain storage" 2020-2022 (supervisor, candidate of technical sciences, acting associate professor Nikonova T.Yu.)



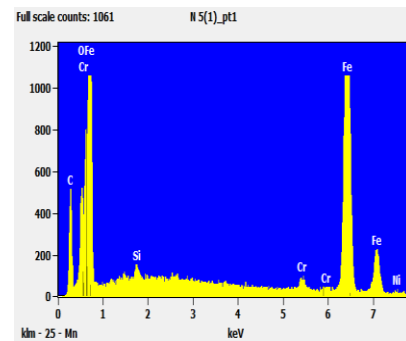
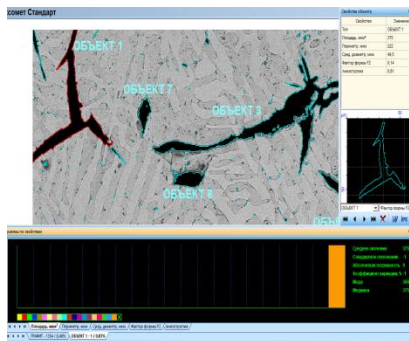
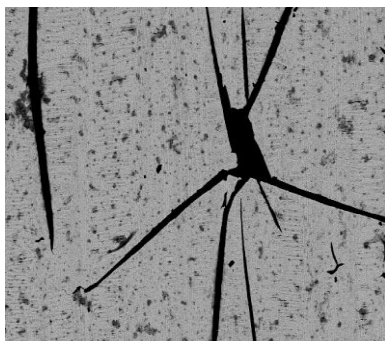
Control system for remote monitoring and diagnostics of the microclimate in polymer agricultural sleeves for grain storage

- "Creation of a prototype of a universal device based on a lathe for the implementation of milling technology" 2020-2021. (supervisor, PhD, acting associate professor Mussaev M.M.).



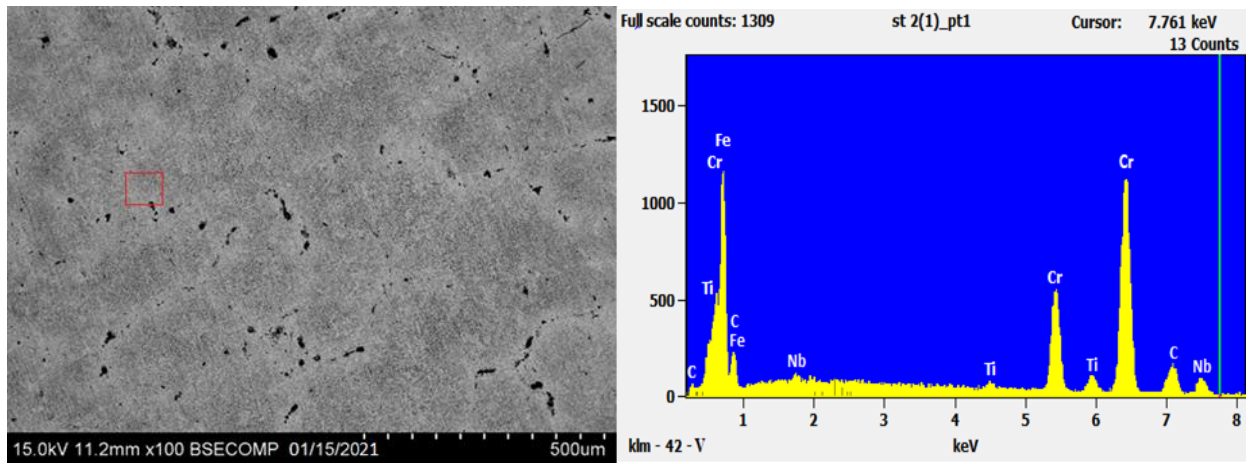
Universal device based on a lathe for the implementation of milling technology

- "Developing and implementing the technology of producing the «Nihard» class cast irons with increased operational properties for mining and processing equipment parts" 2020-2022 (supervisor, doctor of technical sciences, professor Issagulov A.Z.).



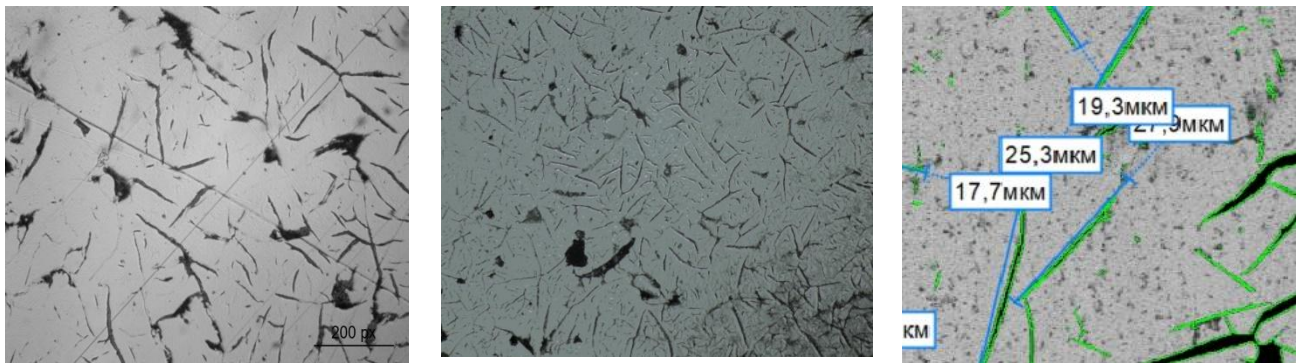
Metallographic and microstructural studies of prototypes

- "Development and implementation of a new heat-resistant alloy and technology for obtaining parts for metallurgical production based on it" 2021 (supervisor, doctor PhD, teacher Arinova S.K.);



Experimental laboratory alloy structure (MRSA)

- “Developing and implementing the technology of producing chrome antifriction cast iron for parts of mining equipment” 2021 (supervisor doctor PhD, senior lecturer Shcherbakova E.P.)



Microstructures of the studied samples