Project name:	Modelling and optimizing processes applicable in maintenance
Description:	The scientific research within the project is based on the application of designed experiments and statistical methods, as well as artificial intelligence methods, with the aim of modelling and optimizing the processes applicable in maintenance (thermal spraying, machining). The research object also refers to the processing of images of machined surfaces by artificial intelligence methods, in terms of prediction of the output variable (surface roughness) with or without optimization of the machining parameters and in terms of classification according to the output variable with or without optimization of the machining parameters.
Webpage:	
Source of finances:	University of Slavonski Brod
Beneficiary:	Mechanical Engineering Faculty in Slavonski Brod, University of Slavonski Brod
Partners:	-
Project budget:	1.031.188,00 HRK
Duration:	October 2019 - October 2022
Location:	Slavonski Brod, Novi Sad
Target groups:	Scientific and/or academic institutions; maintenance departments in enterprises; machining departments in enterprises
Objectives:	The main objective of the project is to derive statistical models for predicting mass losses due to wear and surface roughness and to determine the optimal values for thermal spraying and machining parameters. The proposed models and optimal parameter values can be used to assist in the maintenance of components or finished products to reduce maintenance time and costs. The objective is also to use artificial intelligence methods to obtain models for predicting and/or classifying the surface roughness based on the machining parameters, that could then be optimized with respect to the current priority objectives of the machining process.