Project name:	APPLICATION OF RAPID MANUFACTURING TECHNOLOGIES IN MODERN PRODUCTION PROCESSES, USED IN METALFORMING, ASSEMBLY, AND JOINING OF SUBCOMPONENTS AND FINISHED PRODUCTS (SBPIP-2023)
Description:	The purpose of the project is to investigate the possibility of applying modern technologies for the production of tools used in the processes of reshaping and joining materials. Modern technologies include rapid production of products, application of ultrasonic technology in metal forming, application of modern commercial (standardized) tool elements in the construction of new tools for positioning, shaping or joining materials. Modern modular tools offer the possibility of quick adaptation of the production program, which is reflected in the shorter production preparation time. Rapid product manufacturing shortens manufacturing time of modular tool segments, and small batch testing before determination of the optimal operating parameters, of the tool parts that are not standardized.
Webpage:	
Source of finances:	University of Slavonski Brod
Beneficiary:	University of Slavonski Brod
Partners:	
Project budget:	2.650,00 EUR
Duration:	1.10.2023-30.9.2024 **with possibility of duration prolongation for subsequent 12 month, which is dependant on the project review by the University Senate*
Location:	Slavonski Brod, Zagreb
Target groups:	University of Slavonski Brod (UNISB), Mechanical engineering faculty in Slavonski Brod (MEFSB), metal processing companies located in the "Đuro Đaković" production complex, and small production companies located in the vicinity of the Slavonski Brod city.
Objectives:	The goals of the project include: A) Examining possibility of application of the rapid production technologies, for the production of tools. B) Laboratory testing of the modern materials C) Measurement of stress and residual stress using the strain gauge method in the tool and/or product D) Examining the possibility of joining similar or dissimilar materials using modern production procedures E) Examining the possibility of cutting materials with modern tools F) Examination of the possibility of applying anti-corrosive coatings and the realized properties of the coating G) Experiment planning and statistical processing of results. Creation of scientific and professional papers based on research results and publishing them in scientific journals (WoSCC, SCOPUS) and conferences with international review. Expected results: B1) Creation of verified and optimized production parameters for modern production processes and materials

	B2) Publication of results in scientific journals B3) Participation in scientific conferences with international review B4) Transfer of "know-how" knowledge to production companies in the surrounding area through cooperation on final and graduate theses with students