Project name:	Detailed analysis of residual stresses in ring specimens used for measuring fracture toughness of the pipe material
Description:	In the pipes, residual stresses are present because of the production process. Residual stresses are cause of the collapse of many constructions and in most cases of the calculation and design of individual parts, constructions and plants, they are not taken into account. Residual stresses have a significant impact on fatigue material behavior as well as on fracture toughness of the material so it is necessary to take them into account when calculating the lifetime. In the scope of this project, measurements of the residual stresses are performed on the ring specimens which are foreseen as an alternative solution when standard test specimens for the measurement of fracture toughness cannot be applied.
Webpage:	-
Source of finances:	Josip Juraj Strossmayer University of Osijek
Beneficiary:	Mechanical Engineering Faculty in Slavonski Brod
Partners:	-
Project budget:	39.000,00 HRK
Duration:	19/12/2018 – 31/12/2020
Location:	Slavonski Brod
Target groups:	Companies specialized for the design, calculation and manufacture of pipelines and pressure equipment
Objectives:	To perform a detailed residual stress analysis on PRNB specimens, as it is known that residual stresses can have a significant impact on the fracture toughness of material, and this is not covered by the standard. Measurement results will provide a detailed insight into the state of residual stresses in PRNB specimens, which is a necessary basis for further analysis of the impact of residual stresses on the fracture toughness of PRNB specimens.