**GEOMETRICAL DESIGN AND OPTIMIZATION OF STIRRER FOR FRICTION STIR WELDING**

Nadhim M. Faleh*[[1]](#footnote-1) Ridha A. Ahmed[[2]](#footnote-2)* Raad M. Finjan*[[3]](#footnote-3)*

Preliminary calculations on the effect of the shape of the foils on the MIXING ratio between the two plates.

Review of researches on the geometric shape of the stirrer at FSW

Preparing the tool and requirements for the FSW welding process, for three cases of geometric shape of stirrer. Then conduct the welding process with specific rotational speed and feeding conditions.

Processing of samples to test the bending and tensile strength, for different cases.

Draw charts, study results and extrapolate conclusions

1. dr.nadhim@uomustansiriyah.edu.iq [↑](#footnote-ref-1)
2. ridhalwan@uomustansiriyah.edu.iq [↑](#footnote-ref-2)
3. raad1414@gmail.com [↑](#footnote-ref-3)