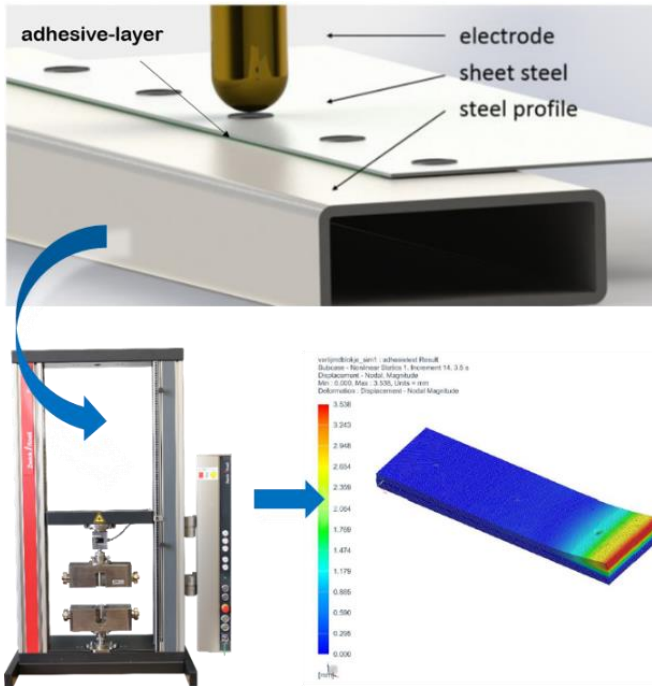


**Topic:** HybridJoint “spot welded adhesive bonding” –  
Experimental research of resistance spot welded adhesive  
bonding joints in automotive



**Start:** now

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**Type of Thesis:**

Bachelorthesis	X	Experiments	X
Projectthesis	X	Development	
Masterthesis	X	Theoretical	
		Literature research	

**Department:**

adhesive bonding technology,  
resistance welding

**Description:**

Combining joining processes, known as hybrid joints, is becoming increasingly important in industrial production, as the advantages of the individual processes can be combined. In this particular case, the HybridJoint "resistance spot welding and adhesive bonding" is considered. This process is a particular focus of the automobile manufacturers. The additional use of the adhesive can significantly increase the stiffness and crash stability of the structure. In this thesis, the increase of stiffness on exemplary components is to be investigated experimentally. These results flow directly into a simulation of the structure. The challenges of the HybridJoint "resistance spot welding and adhesive bonding" and this work are the suitable adhesive selection (adhesive materials, joining temperature, livetime temperatures, strength), the determination of suitable welding parameters (current strength, duration, pressing force) as well as the type of load (Mode I, Mode II, Mode III).

If the work on the task is well, an international publication in a renowned journal is aimed.

Are you interested in the topic and are you motivated to participate in a highly relevant field of research? Then I'll be happy to tell you more details in a personal conversation. If you have any questions, please do not hesitate to contact me by phone or e-mail.