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Poster: Study on welding signal in the manufacturing of hot water tanks

In the industry of hot water tanks, welding is present in almost all the manufacturing steps. The final product quality is highly dependent on the welding quality. Evaluating this latter from the welding signals has gained considerable interest in the last years due to the development of data acquisition systems and artificial intelligence methods. Welding defect detection is the center of most of the studies. However, further subjects had not gained the same interest. We present here the state of our research on arc welding signals; we cover the subjects of welding defect detection, detection of anomalies of the welding machine components, and a study on the interactions of welding parameters. We also present primary results on early welding defect prediction, which is the final goal of our research project.

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