

Methodical Approach for Analyzing Process Variables and Optimizing Boundary Conditions in Multi-Axis Robot Programs

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Motivation

Robots are cool!

Manufacturing advances.

More Data is gathered.

What can we use that data for?



Problem Formulation and Aim

Problem:

No method present that is adaptable to any system Not possible to specify desired process parameters Not possible to weigh individual process parameters No solution to optimize boundary conditions

Aim:

Develop a system that analyzes process variables Return a single numerical value describing the process, base on user selected process variables Present option to optimize boundary condition



State of the Art

Show research gap by comparing what was already done and what is missing



Methodology

Show cool images of methodology



Implementation and Results

Show cool images from modeled robot and results

Show PSO optimization running



Discussion

Explain why results are good and what can be improved



Outlook

Show what is possible in the future



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Sources

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