



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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