BECKHOFF

Master Thesis Beckhoff Automation

Beckhoff Automation is a global provider of open automation systems based on advanced PC Control technology. The "New Automation Technology" philosophy at Beckhoff represents universal and open automation solutions used in a wide spectrum of high-tech applications around the world.

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Real-time 2d image processing for robotic guidance

With TwinCAT Vision, Beckhoff adds integrated image processing functionality to the automation software suite TwinCAT. In line with the underlying principle of PC-based control technology, image processing has been integrated into the central control platform, which already incorporates PLC, motion control, robotics, high-end measurement technology, IoT and HMI capabilities. The resulting benefit is state-of-the-art machine concepts enabling users to meet current and future market requirements and to increase the competitiveness and investment security of their products.

The project aims to examine the benefits of incorporating real-time image processing into robotic guidance, in particular an industrial 4-axis Delta robot which you will have access to at our headquarters in Malmö.

We consider that the project consist of two parts. One theoretical part where you are expected to explore the market for areas where real-time image processing could be beneficial for robotic guidance. The second part is to implement one or multiple of the solutions identified in the theoretical part.

For a successful project we offer you.

- TwinCAT Basic course to learn our software
- TwinCAT Vision course to learn our vision software
- Supervisor in Malmö
- A workplace in Malmö
- 4D Delta robot and 6D industrial robot to use

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