

## The Vision Baed Parallel Robot Control

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**Abstract :** In this paper, we describe the control strategy of high speed parallel robot system with EtherCAT network. This work deals the parallel robot system with centralized control on the real-time operating system such as window TwinCAT3. Most control scheme and algorithm is implemented master platform on the PC, the input and output interface is ported on the slave side. The data is transferred by maximum 20usecond with 1000byte. EtherCAT is very high speed and stable industrial network. The control strategy with EtherCAT is very useful and robust on Ethernet network environment. The developed parallel robot is controlled pre-design nonlinear controller for 6G/0.43 cycle time of pick and place motion tracking. The experiment shows the good design and validation of the controller.

**Keywords :** parallel robot control, etherCAT, nonlinear control, parallel robot inverse kinematic

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