

Technical Summary

The control accounts for second-order effect like interlock delay, processor time, and minimum switch toggle time directly as core issues

The control provides *fastest control* response possible, given all constraints

There is no PID controller

There are *no filters* like traditional control systems which add phase lag that needs to be managed

The motor parameters *ARE* the tuning. The Change criterion are the means for defining performance objectives (rich ground for innovation)

Flexible, allowing changes to the model to be incorporated at any time

The code that is carried *throughout* the design process, is the *same* code that runs in the product

Final modulation has spread spectrum characteristic, which tends to not excite resonances

The ability to change detail of operation on the fly *with state transition constraints* Ex. continued operation with a failed switch.....(rich ground for innovation)

As a motor drive, the control is neither current mode nor voltage mode control, *but both*....bringing with it advantages of both control methods (particularly at high speed)

Dual-use capability for same or different motor types, and inverter types easily accommodated

Dual/multiple simultaneous control of different motors (or power systems) can be done in the same processor by allocating h, with required quality in mind

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Power Technology in Control