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Optimal PID Control of a Buck Converter using MOBA and IMOBA

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Abstract



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Abstract:

Tweaking or designing of pID controllers have been an important area of study for quite some time with varied amount of successes. The Multi Objective Bee Algorithm (MOBA) and Improved Multi Objective Bee Algorithm (IMOBA)-based Proportional-Integral-Derivative (PID) controller design technique for Buck converter is provided in this work. The MOBA and IMOBA adopted, which grantee the food position search inside the specifiedsearch space, to build the parameter of PID controller. In terms of performance indices and transient features like settling time and rising time, IMOBA simulation results demonstrate increased performance when compared to MOBA.

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