

Erratum to Short-Horizon Finite-State Voltage Control of Bidirectional DC–DC Converter With Non-Minimum Phase Dynamics

ERRATUM

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In the published article, Fatemeh Rezayof Tatari and Grzegorz Iwanski (2026), “Short-Horizon Finite-State Voltage Control of Bidirectional DC–DC Converter with Non-Minimum Phase Dynamics”, Power Electronics and Drives, DOI: 10.2478/pead-2026-0015, pp. 230–247, an error was identified in Eq. (18). The absolute-value notation around the inductor-current error term was included incorrectly. Eq. (18) appears in the CMP-BB formulation of the article.

Published Eq. (18):

$$S = (u_{ref} - u_{out,act}) + w_i |i_{des} - i_{comp}|$$

The correct form of Eq. (18) is as follows:

$$S = 0.5 * \left(1 + \text{sign} \left[(u_{ref} - u_{out,act}) + w_i (i_{des} - i_{comp}) \right] \right) \quad (18)$$

The controller implementation used the signed inductor-current error shown in the corrected equation. Therefore, this correction concerns only the mathematical expression printed in the article and does not affect the simulation or experimental results, figures, discussion, or conclusions. All subsequent references to Eq. (18) should be understood as referring to the corrected expression.

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