

# ***Errata Corrige – On-line Capacity Estimation for Lithium-ion Battery Cells via an Electrochemical Model-based Adaptive Interconnected Observer***

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This document provides the corrected version of the equations presented in “On-line Capacity Estimation for Lithium-ion Battery Cells via an Electrochemical Model-based Adaptive Interconnected Observer”, published in the *Transactions of Control Systems Technology, IEEE*. The corrections are highlighted in **blue** color below.

## I. EQUATIONS

- Equation (1):

$$V(t) = [U_p(c_{s,p,surf}, T) + \eta_p(c_{s,p,surf}, T, I_{batt})] - [U_n(c_{s,n,surf}, T) + \eta_n(c_{s,n,surf}, T, I_{batt})] + \frac{2R_g T \nu(T)}{F} \ln \frac{c_e(L)}{c_e(0)} - I_{batt}(t) R_{e,0} - I_{batt}(t) R_l$$

- On Page 5, definition of  $h_4(x_4, u)$ :

$$h_4(x_4, u) = \frac{2R_g T \nu(T)}{F} \ln \frac{c_e(L)}{c_e(0)},$$

- Equation (19):

$$\dot{\hat{\theta}}_2 = \frac{CG_1(\hat{x}_3 - Q_0)u \operatorname{sgn}(e_{y_1})|\tilde{h}_1 - \tilde{h}_2|}{k_2 \gamma_{p,2}}$$