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Corrigendum

Corrigendum to "Analysis of the Coupling Coefficient in Inductive Energy Transfer Systems"

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In the paper titled "Analysis of the Coupling Coefficient in Inductive Energy Transfer Systems" [1], Equation (16) is the voltage drop across the secondary coil and is written as

$$V_1 = jw\left(I_2 L_2 + M I_1\right). \tag{16}$$

However, the correct expression is

$$V_2 = jw\left(I_2 L_2 + M I_1\right). \tag{16}$$

In addition, the mutual inductance M in Equation (18) should be squared, resulting in

$$V_1 = j\omega I_1 \left(L_1 - \frac{M^2}{L_2}\right). \tag{18}$$

As a result, the mutual inductance in Equation (19) must also be corrected, yielding

$$L_s = L_1 - \frac{M^2}{L_2}. \tag{19}$$

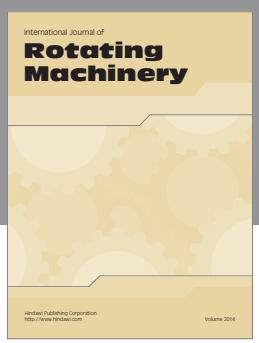
Finally, the mutual inductance measured when the secondary coil is shorted, shown in Equation (21), should be written as

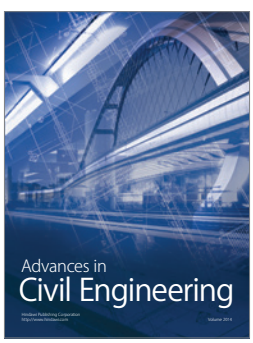
$$M = \sqrt{L_2\left(L_1 - L_s\right)}. \tag{21}$$

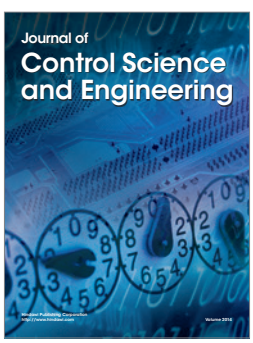
Now, the substitution of Equation (21) in Equation (2) of [1] results in the expression given by Equation (22).

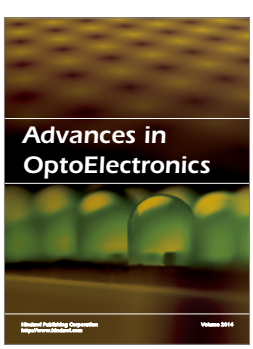
References

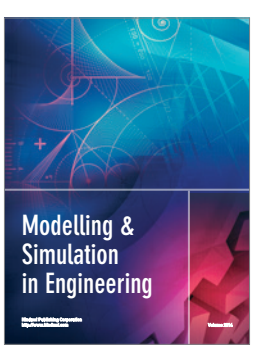
[1] R. Mendes Duarte and G. Klaric Felic, "Analysis of the coupling coefficient in inductive energy transfer systems," *Active and Passive Electronic Components*, vol. 2014, Article ID 951624, 6 pages, 2014.

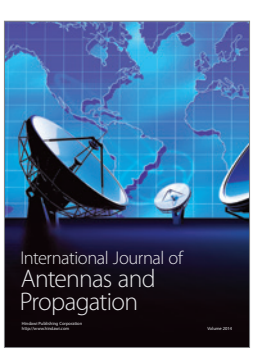


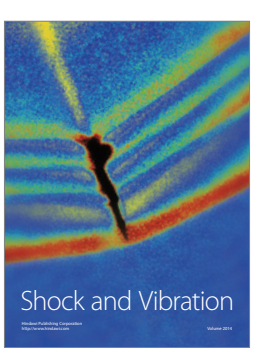


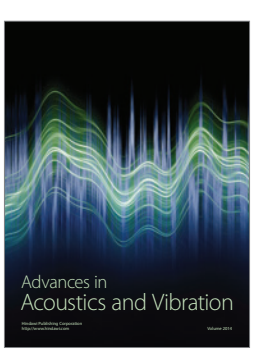












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