



# Corrigendum: Integrated Household Appliance Scheduling With Modeling of Occupant Satisfaction and Appliance Heat Gain

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**Keywords:** demand response, smart home, building energy, smart grid, demand side management

## A Corrigendum on

### Integrated Household Appliance Scheduling With Modeling of Occupant Satisfaction and Appliance Heat Gain

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In the original article, the **Keywords** were incorrect: “demand response, smart home, building energy, smart grid, demand side management.” The correct version of the **Keywords** is as follows: “demand response, smart home, building energy, smart grid, demand side management.”

In the **Results and Discussion** section, sub-section “*Simulation Study*”, paragraph 4, the following line was incorrect: “The optimized results of the LED bulb and incandescent light bulb under Case 1 and Case 2 are shown in **Figure 14A**, respectively, where the green block represents the power range of the LED bulb,” The correct version of this line is as follows: “The optimized results of the LED bulb and incandescent light bulb under Case 1 and Case 2 are shown in **Figures 14A,B**, respectively, where the green block represents the power range of the LED bulb.”

The indexes of some equations were also incorrect. The corresponding equations were not indexed as (1), (2), and (17), therefore, all equations in the original article have been re-indexed from (1) to (26). According to the new indexes of the equations:

The following line in section “*Modeling of Home Energy Resources*,” sub-section “*Model of Air Conditioner*,” “*Room’s Thermal Model*,” paragraph two was incorrect: “The heat gain  $H_t^{gain}$  is calculated by **Eq. 4**.” The correct version of this line is as follows: “The heat gain  $H_t^{gain}$  is calculated by **Eq. 2**.”

Further, the following line in section “*Simulation Study*,” sub-section “*Simulation Setup*,” paragraph two was incorrect: “note that the heat gain released by the  $j$ th power adjustable appliance at the  $t$ th time slot can be calculated by **Eq. 29**.” The correct version of this line is as follows: “note that the heat gain released by the  $j$ th power adjustable appliance at the  $t$ th time slot can be calculated by **Eq. 26**.”

Also, the following line in the “*Formulation of Home Energy Management Model*” section, last paragraph was incorrect: “Constraint 24) restricts the adjustable power range of each PAA at each of its operational time slots. Constraint 25) ensures that each TSA can only be in the “ON” state in its task execution period. Constraint 26) ensures that each PAA does not consume power except at its operational time slot.” The correct version of this line is as follows: “Constraint (21) restricts the

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adjustable power range of each PAA at each of its operational time slots. Constraint (22) ensures that each TSA can only be in the “ON” state in its task execution period. Constraint (23) ensures that each PAA does not consume power except at its operational time slot.”

Eq. 22 (i.e., Eq. 25 in the original article) had an incorrect layout, and the correct version is as follows:

$$s_{i,t}^{tsa} = \begin{cases} 1 & \text{if } \tilde{t}_i^{tsa} \leq t \leq \tilde{t}_i^{tsa} + d_i^{tsa} - 1, i = 1: N^{tsa} \\ 0 & \text{otherwise} \end{cases} \quad (22)$$

Finally, in the original article, there were mistakes in **Figure 1**, **Figure 7**, **Figure 13**, and **Figure 14** as published. Because of the conflict of drawing software on Mac and Windows, some icons, lines, and blocks were not shown correctly in the original article. The correct figures appear below.

The authors apologize for these errors and state that these do not change the scientific conclusions of the article in any way. The original article has been updated.

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