



US 20230232567A1

(19) **United States**

(12) **Patent Application Publication**  
**LEE et al.**

(10) **Pub. No.: US 2023/0232567 A1**

(43) **Pub. Date: Jul. 20, 2023**

(54) **ELECTRONIC DEVICE AND METHOD FOR CONTROLLING TEMPERATURE THEREOF**

**Publication Classification**

(51) **Int. Cl.**  
**H05K 7/20** (2006.01)  
**G05B 19/4155** (2006.01)  
(52) **U.S. Cl.**  
**CPC** ..... **H05K 7/20** (2013.01); **G05B 19/4155** (2013.01); **G05B 2219/50333** (2013.01)

(71) Applicant: **SAMSUNG ELECTRONICS CO., LTD.**, Suwon-si (KR)  
(72) Inventors: **Hongji LEE**, Suwon-si (KR); **Hyoujoo KWON**, Suwon-si (KR); **Hyuncheol PARK**, Suwon-si (KR); **Sunok JUNG**, Suwon-si (KR); **Seongmin JE**, Suwon-si (KR)

(57) **ABSTRACT**

An electronic device may include a temperature sensor, a display, and a processor operatively connected to the temperature sensor, wherein the processor may be configured to: in response to identifying, by using the temperature sensor that the ambient temperature of the electronic device is changed beyond a preconfigured level within a predetermined time, measure the internal temperature of the electronic device; and in response to identifying, through comparison, that the measured internal temperature of the electronic device is lower than the ambient temperature of the electronic device by more than a predetermined level, control at least one component inside the electronic device to perform control to raise the internal temperature of the electronic device to a preconfigured first level.

(21) Appl. No.: **17/974,210**

(22) Filed: **Oct. 26, 2022**

**Related U.S. Application Data**

(63) Continuation of application No. PCT/KR2022/015620, filed on Oct. 14, 2022.

**Foreign Application Priority Data**

Jan. 18, 2022 (KR) ..... 10-2022-0007234  
Feb. 24, 2022 (KR) ..... 10-2022-0024567

