



US 20240235545A9

(19) **United States**
(12) **Patent Application Publication**
Cho et al.

(10) **Pub. No.: US 2024/0235545 A9**
(48) **Pub. Date: Jul. 11, 2024**
CORRECTED PUBLICATION

(54) **ADAPTIVE CLOCK GATING FOR IMPROVING WEAR OUT-INDUCED DUTY CYCLE SHIFT IN COMPUTER CLOCK NETWORK**

(71) Applicant: **Intel Corporation**, Santa Clara, CA (US)

(72) Inventors: **Minki Cho**, Portland, OR (US);
Balkaran Gill, Cornelius, OR (US);
Anisur Rahman, Beaverton, OR (US);
Ketul B. Sutaria, Beaverton, OR (US)

(21) Appl. No.: **17/971,619**

(22) Filed: **Oct. 23, 2022**

Prior Publication Data

(15) Correction of US 2024/0137016 A1 Apr. 25, 2024
See (22) Filed

(65) US 2024/0137016 A1 Apr. 25, 2024

Publication Classification

(51) **Int. Cl.**
H03K 17/14 (2006.01)
G06F 1/08 (2006.01)
(52) **U.S. Cl.**
CPC **H03K 17/14** (2013.01); **G06F 1/08**
(2013.01); **H03K 2217/94031** (2013.01)

(57) **ABSTRACT**

This disclosure describes systems, methods, and devices related to clock gating. A device may detect that gating of a local clock of a computer core is enabled; detect, based on the detection that the gating is enabled, that a clock gating condition for the local clock is satisfied; and set a clock gating polarity of the local clock based on the detection that the clock gating condition for the local clock is satisfied.

