



Correction to: Novel Randomized Placement for FPGA Based Robust ROPUF with Improved Uniqueness

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Correction to: Journal of Electronic Testing

<https://doi.org/10.1007/s10836-019-05829-5>

The original article unfortunately contained a mistake. Corrections provided in a list form were not carried out.

Abstract:

Line 1: Physical unclonable functions (PUFs)

Paper:

Page 1:

Line 6: Application specific integrated circuits (ASICs)
Line 7: field programmable gated arrays (FPGAs)
Line 14: The earlier approaches,
Line 15: random guessing attacks,

Page 2:

Line 112: hamming distance **difference** should be kept as large as possible.

Page 3:

Line 181: **presented** an approach.

Page 4:

Line 264: They **did** not consider
Line 312: **increased number of hardware**

Page 6:

Line 391: checked for **reliability**.
Line 413: first phase **have**
Line 435: configurable logic blocks (CLBs)

Page 7:

Line 465: designed **using** MATLAB

Page 8:

Line 529: maximum frequency **span** for biased
Line 531: frequency **span** for biased

Page 9:

Line 582: approach **shifts** the centroid
Line 610: approach **is** sensitive
Line 615–616: linearly spaced **frequencies are** generated

Page 10:

Line 647: centroids **have** been
Line 659: **similar to** standard K-means

Page 11:

Line 689: based approach **increases** the
Line 692: **provides** same frequency difference

Page 13:

Line 772: number **of** samples
Line 775: time is **considerably**
Line 800: uniqueness **metrics** have been

Page 14:

Line 824: has **been** kept
Line 828: **have** been

The online version of the original article can be found at <https://doi.org/10.1007/s10836-019-05829-5>

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Page 15:

Line 870: **should passed** for a confidence
Line 881: which **lead** to **failing** of most of the tests

Page 16:

Line 927: response (**R**)

Page 17:

Line 959: two devices **should not produce** the same
Line 968: **inter-chip**
Line 971: **inter-chip**
Line 972: **Figure 19a**

Page 18:

Line 1047: group is **able** to pass
Line 1109: along **with** other

Table:

Table 1:

Footnote:

Line 4,5 -> change symbol \downarrow with $<$

Table 3: Reference Correction.

ROPUF [43] -> [42]
Maiti-CRO [34]-> [32]
Improved ROPUF [26] -> [25]
Self compare [16] -> [15]
PUF-ID [18]-> [17]

Table 4:

Table header, column 3: **Wost** -> **Worst**.

Equations:

eq2: **nom**-> **avg**
eq:15 \bar{z} -> **M**

Algorithms:

Algorithm 2:

point 7
line 2: **bp** to **bc** -> **bp = bc**

Algorithm 3:

Point 3:
Line 3: threshold **th** to $\Delta l_{s_{min}}$ -> threshold $\Delta l_{s_{min}}$ to **th**

Reference:

Ref:23 line 1: **puf** -> **PUF**

Ref:34 line 2: **puf** -> **PUF**

Figure Caption:

Figure 9, Caption:

Line 1: K-means on X and \overline{MICD} during iterations

Figure 17, Caption:

Line 1: minimum entropy **lower bound**

The original version has been corrected.