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December 12, 2013

AJU Kim Chang & Lee
Attn: Ji-woon Chae
6th Floor, Hubbahubba Building
648 Yeoksam-dong, Gangnam-gu
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REPUBLIC OF KOREA

Re: U.S. Serial No. : 12/372,765
U.S. Filing Date : 2/18/2009
U.S. Patent No. : 8,533,848
Issue Date : 9/10/2013
Title : METHOD AND SYSTEM FOR PRODUCING MULTIMEDIA
FINGERPRINT BASED ON QUANTUM HASHING
First Named Inventor : Min-Ho Jin *et al.*
Our Ref. : AJU.6326-NY
Your Ref. : KIP09607/US

Dear Ji-woon:

Further to our email of October 14, 2013, enclosed please find a Certificate of Correction, which issued in connection with the above-mentioned patent. Please keep this with the original grant, which was previously forwarded to you. This is an original document as well, and should be carefully preserved.

Should you have any questions or concerns regarding the enclosed, please do not hesitate to contact us.

Very truly yours,

SCHMEISER, OLSEN & WATTS

Arlen L. Olsen, Patent and Trademark Attorney
aolsen@iplawusa.com

ALO/jla
Enclosure

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 8,533,848 B2
 APPLICATION NO. : 12/372765
 DATED : September 10, 2013
 INVENTOR(S) : Jin et al.

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Drawings

Please replace the drawings of figures 3 and 4 with the attached drawings.

In the Specification

Column 4

Line 23, delete “ $q_d[k] = \phi_d^-[k]|0\rangle + \phi_d^+[k]|1\rangle$ ” and insert -- $q_d[k] = \psi_d^-[k]|0\rangle + \psi_d^+[k]|1\rangle$ --

Line 24, after “weights” delete “ $\phi_d^-[k], \phi_d^+[k]$ ” and insert -- $\psi_d^-[k], \psi_d^+[k]$ --

Line 27, delete “ $|\phi_d^-[k]|^2 = P(\hat{b}_d[k]=0|v_d[k])$ ” and insert -- $|\psi_d^-[k]|^2 = P(\hat{b}_d[k]=0|v_d[k])$ --

Line 30, delete “ $|\phi_d^+[k]|^2 = P(\hat{b}_d[k]=1|v_d[k])$ ” and insert -- $|\psi_d^+[k]|^2 = P(\hat{b}_d[k]=1|v_d[k])$ --

Line 37, delete “ $\hat{b}_d[k] = \begin{cases} 1 & \text{if } v_d[k] \geq 0 \\ 0 & \text{otherwise} \end{cases}$ ” and insert -- $\hat{b}_d[k] = \begin{cases} 1 & \text{if } \hat{v}_d[k] \geq 0 \\ 0 & \text{otherwise} \end{cases}$ --

Line 60, delete “ $s_1(Q_d[k], r_d[k]) = \begin{cases} |\psi_d^-[k]|^{1/2} & \text{if } r_d[k] = 0 \\ |\psi_d^+[k]|^{1/2} & \text{otherwise} \end{cases}$ ” and insert

-- $s_1(q_d[k], r_d[k]) = \begin{cases} |\psi_d^-[k]|^{1/2} & \text{if } r_d[k] = 0 \\ |\psi_d^+[k]|^{1/2} & \text{otherwise} \end{cases}$ --



Signed and Sealed this
 Nineteenth Day of November, 2013

Teresa Stanek Rea

Teresa Stanek Rea
 Deputy Director of the United States Patent and Trademark Office

Column 5

Line 2, delete " $\sum_{k=0}^{K-1} \sum_{d=0}^{D-1} s_1(Q_d[k], r_d[k])$ " and insert --

$\sum_{k=0}^{K-1} \sum_{d=0}^{D-1} s_1(Q_d[k], r_d[k])$ $\begin{matrix} \text{concord} \\ > \\ < \\ \text{discord} \end{matrix} \tau$

$\sum_{k=0}^{K-1} \sum_{d=0}^{D-1} s_2(Q_d[k], r_d[k])$ $\begin{matrix} \text{concord} \\ > \\ < \\ \text{discord} \end{matrix} \tau$

Fig. 3

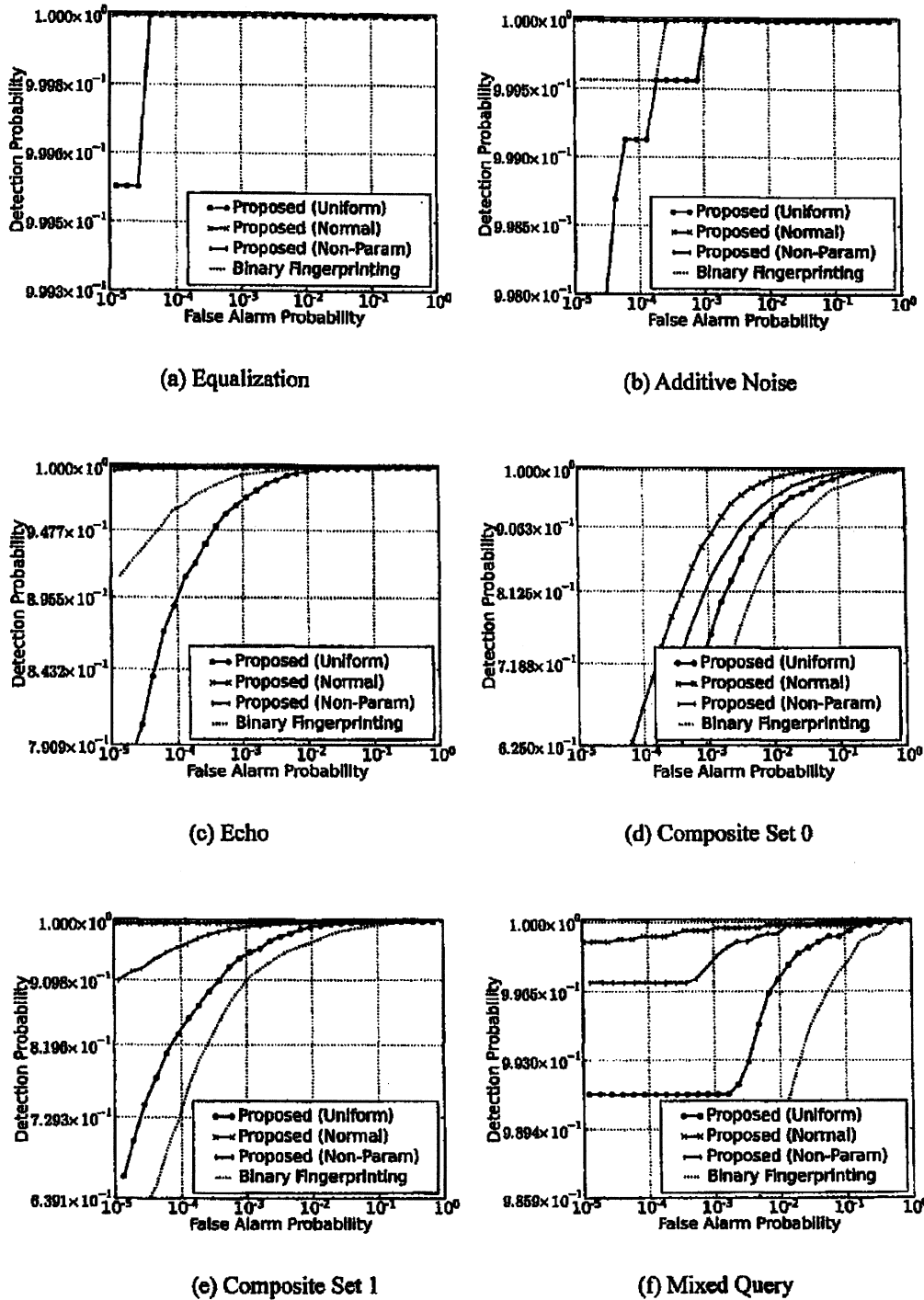
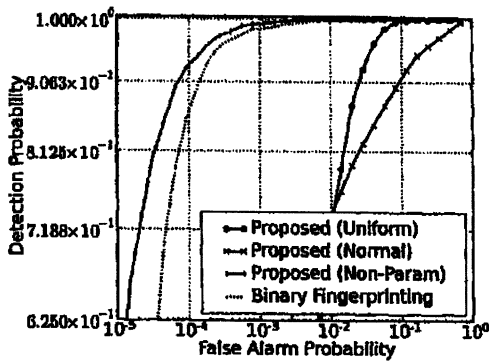
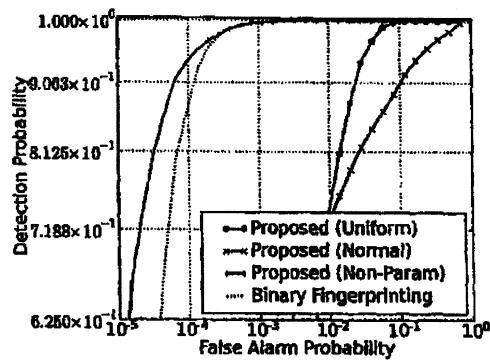


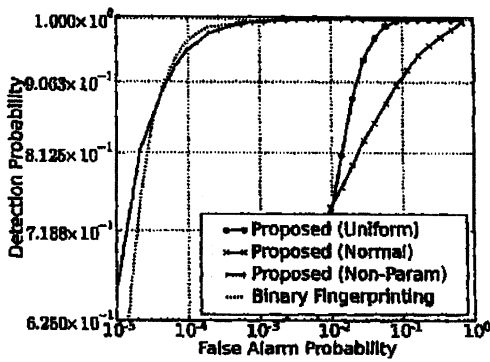
Fig. 4



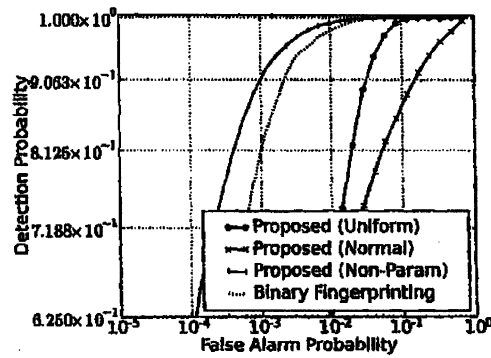
(a) BR



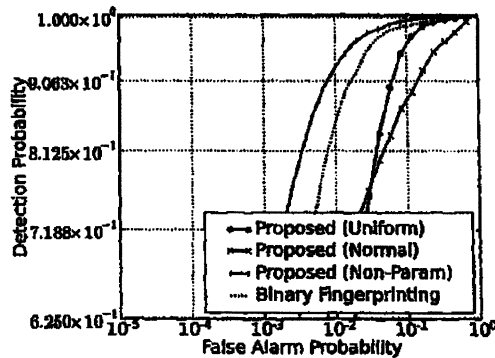
(b) FPS



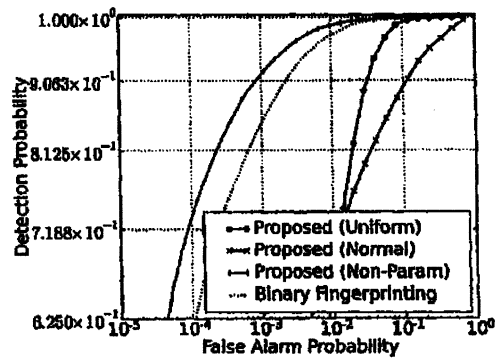
(c) CIF



(d) CAM



(e) ROT



(f) Mixed Query