



Associate Professor
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Dr.Eng., P.Eng., SMIEEE, MIEM

EXPERTISE

- *Image and Video Coding*
- *Pattern Recognition*
- *Computer Engineering*
- *Robotics*

RESEARCH

- *Iris Recognition*
- *Advanced Encryption Standard*
- *Skin Detection*
- *Humanoid Robot*

PROFESIONAL AFFILIATIONS

- *Professional Engineer with Practising Certificate (Board of Engineers Malaysia, BEM)*
- *Senior Member (IEEE)*
- *Member (The Institute of Engineers Malaysia, IEM)*

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BRIEF RESEARCH/COMMUNITY/CONSULTATION SNAPSHOT

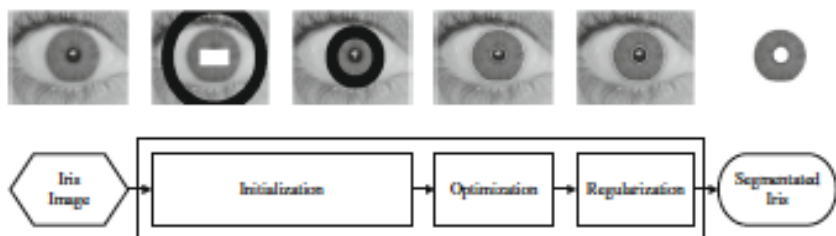


Fig. 1. Block diagram of Iris Recognition algorithm



Fig. 2. Reconstructed of decomposed image with different number of lose bit planes.

SELECTED PUBLICATIONS

1. Shervin Shokri, Mahamod Ismail, Nasharuddin Zainal, Vahideh Hashemzadeh. 2015. Research Journal of Applied Sciences, Engineering and Technology. A Method to Improve Voice Quality in Speech Watermarking at the Receiver Using the Adaptive Filters. 11(7):746-758
2. M. A. Ibrahim, Z. Shukur, N. Zainal, Abdo A. A. Al-Wosabi. 2015. ARPN Journal of Engineering and Applied Sciences. Software Manipulative Techniques Of Protection And Detection: A Review. 10(23)
3. Ali Abdulgader, Mahamod Ismail, Nasharuddin Zainal. 2015. International Review on Computers and Software (I.RE.CO.S.). Robust Audio Encryption Method for MPEG-2 AAC Audio Based on Module Arithmetic and Chaotic Maps. 10(1):80-89
4. Nasharuddin Zainal, Salim Mushin Wadi. 2015. Decomposition by binary codes-based speedy image encryption algorithm for multiple applications. IET Image Processing 05/2015,9(5):413-423.
5. Ali Abdulgader, Mahamod Ismail, Nasharuddin Zainal, & Tarik Idbeaa. 2015. Journal of Theoretical and Applied Information Technology. Enhancement of AES Algorithm Based on Chaotic Maps and Shift Operation for Image Encryption. 71(1):1-12.
6. Radman, A., Jumari, K. & Zainal, N. 2014. Arabian Journal for Science and Engineering, Iris segmentation in visible wavelength images using circular Gabor filters and optimization. 39(4):3039-3049.
7. Salim M. Wadi, & Nasharuddin Zainal. 2014. Smart Computing Review. Reversible Color and Gray-scale Based Images in Image Hiding Method Using Adding and Subtracting Operations. 4(3):160-170.
8. Salim M. Wadi, & Nasharuddin Zainal. 2014. Journal or Wireless Personal Communications. High Definition Image Encryption Algorithm Based on AES Modification. 79(2):811-829.
9. Ahmad Ashrif A. Bakar, Rosdiadee Nordin, Nasharuddin Zainal, Khadijah Alavi, M. M. Mustafa, & H. Husain. 2013. International Journal of Engineering Education. Nurturing Engineering Enthusiasm and Soft Skills in High School Students. 29(4):933-939.
10. Abduljalil Radman, Kasmiran Jumari, & Nasharuddin Zainal. 2013. IET Image Processing. Fast And Reliable Iris Segmentation Algorithm. 7(1):42-49.