

3. Conclusion

The bio-inspired neuromorphic vision is proposed as a feasible way of implementing the user experience for smart IT service interface, with application examples of object detection of various human pose. The successful neuromorphic vision is explored for the system integration with neural networks for identifying the user interaction, based on neuromorphic processing with the neural network detector or histogram detector.

The successful detection in robust condition is demonstrated with the simple bio-inspired principles, and the neuromorphic vision is exhibited as enabling technology for applications in the natural user environment.

4. Acknowledgement

This research work was supported by LG U+ for Korea Communication Commission and NIPA, and also supported by (09 Transport System-Future 02) of Ministry of Land, Transport and Maritime, Korea

5. References

- [1] F. Winkler et al, "Identity Management for IMS-based IPTV", IEEE GlobeCom, IEEE, 2008, pp.1-5.
- [2] J. Miller, "The User Experience (internet)", Internet Computing, IEEE, Sep 2005, pp. 90-92.
- [3] S.J. Gibbs et al, "Evolving the TV Experience", Consumer Comm and Net Conference, IEEE, 2009, pp. 1-4.
- [4] M. Riesenhuber, and T. Poggio, " Hierarchical Models of Object Recognition in Cortex", Nature Neuroscience, 1999, pp. 1019-1025.
- [5] M. Hausser, "The Hodgkin-Huxley Theory of Action Potential", Nature Neuroscience Suppl, 2000, pp. 1165.
- [6] W.J. Han, and I.S. Han, "Bio-inspired Visual Signal Processing Based on Neuromorphic Circuit", Proc. IMCAS , WSEAS, 2010, pp. 131-136