

TPA 14: Semi-supervised learning for saliency (foreground) detection (of objects) in images

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Problem Statement: This project is aiming at detection of salient foreground object from images

Input:

- Sample images for training
- Test images containing single prominent object, for detection

Expected Output: The developed code should be able to do the following

- Segmented salient foreground objects

Hint for excellence: *Special Credit will be given if the designed system could able to detect salient objects from images having background clutter and illumination and pose variation*

References

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- Marchesotti, L. ;Cifarelli, C. ; Csurka, G., " A framework for visual saliency detection with applications to image thumbnailing", Computer Vision, 2009 IEEE 12th International Conference on,Sept. 29 2009-Oct. 2 2009, 2232 - 2239
- Lijuan Duan, Chunpeng Wu, Haitao Qiao, Jili Gu, Jun Miao, Laiyun Qing, and Zhen Yang. 2011. Bio-inspired visual saliency detection and its application on image retargeting. In Proceedings of the 18th international conference on Neural Information Processing - Volume Part I (ICONIP'11),182-189

- Introduction to Semi-Supervised Learning - Synthesis Lectures on Artificial Intelligence and Machine Learning by Xiaojin Zhu, Andrew B. Goldberg, Morgan and Claypool Publishers