

Possible Topics for CMPT 414 Term Project

(You are encouraged to create your own)

1. Hierarchical Hough Transform (accuracy, speed)
2. Combining HT and GHT (Hierarchical GHT) for detecting objects
3. Stereo Matching
 - 1) Autostereogram, cooperative stereo
 - 2) Feature-based (line, curve)
4. OCR (Optical Character Recognition)
 - 1) Neural networks (license plates, etc.)
 - 2) CAPTCHA (Shape context, etc.)
5. CSS (Medical Image Processing, etc.)
6. SIFT for Object Recognition
7. Matching (face, fish, pedestrian, car, sport-event, ...)
8. Image stitching, Video collage (using feature points, SIFT/SURF)
9. Image segmentation (Mean shift vs. K-means)
10. Deep-learning Algorithms
 - 1) Object classification
 - 2) Object detection