



**RESEARCH ARTICLE**

# **A REVIEW OF OBJECT RECOGNITION USING VISUAL CODEBOOK**

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*Abstract— Automated recognition of object categories in images is a critical step for many real-world computer vision applications. Interest region detectors and region descriptors have been widely employed to tackle the variability of objects in pose, scale, lighting, texture, color, and so on. This review paper studies codebook models which is used for various computer vision tasks and the different features of object recognition system. The codebook model-based approach provides state-of-the-art performances on current datasets. This approach is impressive because we are simply modeling the statistical distributions of low-level image features into a fixed-length vector in histogram space to which standard classifiers can be directly applied. The discriminative power of such a visual codebook determines the quality of the codebook model and its size controls the complexity of the model.*

*Indexed Terms: - codebook models, Segmentation & Classification, Semantic Image Annotation.*

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