Challenges in Video Based Object Detection in Maritime Scenario Using Computer Vision

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Abstract : This paper discusses the technical challenges in maritime image processing and machine vision problems for video streams generated by cameras. Even well documented problems of horizon detection and registration of frames in a video are very challenging in maritime scenarios. More advanced problems of background subtraction and object detection in video streams are very challenging. Challenges arising from the dynamic nature of the background, unavailability of static cues, presence of small objects at distant backgrounds, illumination effects, all contribute to the challenges as discussed here.