

Tracking and indexing subjects in a crowd

ABSTRACT

A system and method for human detection, tracking and indexing in an unstructured crowded scene is disclosed. It comprises acquiring color images from live surveillance cameras or recorded video sources, detecting therefrom human subjects' face and/or head. Then, human body region is estimated based on human body model. And with the size calibration information, human object with irrational height may be filtered out and any other human bodies occluding it can be identified. The human subject's body may then be segmented and tracked. Colour moments based on RGB and HSV color model, is used to build human candidates and calculate similarity matching. Once matched, the tracking candidate pool is updated with the matched candidate. The human subject may preferably be segmented further into upper and lower body segments based on colour distribution and body modelling for indexing purposes to allow for finer attribute searching and retrieval.

Figure 1 to be accompanied with abstract