PERFORMANCE EVALUTION OF VIDEO SURVEILLANCE USING METE, MELT AND NIDC TECHNIQUE

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Abstract- To evaluate multi-target video tracking results, one needs to quantify the accuracy of the estimated target-size and the Cardinality error as the well as measure the frequency of occurrence of ID changes. By surveying existing multi-target tracking performance scores and, after discussing their limitations, the work proposes three parameter-independent measures for evaluating multi target video tracking. The measures consider target-size variations, combine accuracy and cardinality errors, quantify long-term tracking accuracy at different accuracy levels, and evaluate ID changes relative to the duration of the track in which they occur. The work conduct an extensive experimental validation of the proposed measures by comparing them with existing ones and by evaluating four state-of-the-art trackers on challenging real world Publicly-available data sets. The software implementing the proposed measures is made available online to facilitate their use by the research community.

Index terms*:* Multi-TargetTrack-Before-Detect(MT-TBD),Single Particle Tracking (SPT),Multiple Extended Target Lost Track Ratio(MELT).